Recommendations for future value chain-oriented programs

Aim:
(1) To identify best practices in conduct of programs; and
(2) To increase chances of ongoing benefits after project completion (ie risks to 5-10 year impacts).

Background:
ACIAR is seeking guidance in the development of high-impact Value Chain projects in ASLP Stage III (AVCCR) and other similar programs. To this end, ACIAR is seeking to capture the lessons learned from the ASLP Mango Value Chain Project. This is the best example in the ACIAR portfolio of demonstrated success in this field. It was designed from the outset to "take products to market" using a whole-of-chain approach focussed on clearly identified consumer needs.
The Final Review of the Mango Value Chain Project provided an opportunity to identify these lessons and the review's scope was extended accordingly. Although the project was considered to be very successful overall, it also encountered significant challenges and shortcomings. Both successes and failures have provided valuable lessons in the management of value chain work. The long-term impacts are yet to be demonstrated. Nevertheless, the reviewers have considered factors likely to affect the <u>sustainability</u> of these impacts, as well as their <u>scalability</u> to the wider sphere.
The review findings are distilled below into recommendations relating to: (a) Collaboration; and, (b) Underpinning know-how.

Introduction
Creating and managing value chains is largely about integration – across multiple chain partners with very different roles, risk profiles and skillsets - to achieve shared goals of consumer satisfaction and profitability. This project clearly illustrates the principle. It employed a diverse range of "hard" (technical) and "soft" (facilitation, negotiation, communication etc) skillsets to establish and/or strengthen several quite distinct mango value chains. It did so with relatively modest resources and in a challenging developing country context.

The fact that successes were achieved despite these challenges merits attention. However, every value chain is, by nature, distinct – there is no "recipe" for guaranteed value chain execution. Although there are no shortage of guidelines and frameworks for applying value chain thinking in the rural context, none of these to date has been set in an ACIAR context. Nor is there any mapping of the instructive territory of setbacks and failures along the way, or of the challenges remaining when an ACIAR value chain project concludes.

The Final Review of the ASLP Mango Value Chain Project creates a unique opportunity to fill this gap. These recommendations are structured as generic principles for Australian value chain oriented Agricultural Aid. They are based on the lessons learned from a particular project and these lessons are included in order to provide a rationale for each principle. Given the Australian Aid policy shift to a value chain focus it is hoped they will be considered and further developed, to maximise the impact of future work in this important field.

Issue and Critical Success Factor	Principles for Australian value chain oriented Agricultural Aid	Rationale (Lessons and recommendations from ASLP Mango Value Chain project)
Collaboration: Government Policy 1. **Understand how existing/ emerging phytosanitary barriers will be managed**	Future value chain projects must formalise partnerships with regulatory authorities, including phytosanitary, and consider resourcing any capacity building needs. Future value chain projects should undertake a phytosanitary risk assessment and be prepared for new issues to emerge during the project.	Phytosanitary compliance is a pre-requisite for export value chains. As well as scientific solutions, bilateral government regulatory engagement is essential. The project leaders had to initiate engagement with Pakistan DPP, which was not always placed to respond within commercial parameters. This resulted in significant direct losses and lost opportunities. Note that some of the regulatory issues (eg fruit fly) emerged after the project was underway, requiring adaptive management. In hindsight, it could have been identified as a contingent risk. Given the experience gained with mangoes, this should be used to help manage this risk for future non-mango programs, RECOMMENDATION: ACIAR should support the piloting of a formal partnership/capacity building approach with DPP using mangoes as a case study. (1.2) RECOMMENDATION: PHDEC to prioritise interaction with regulatory authorities regarding market access protocols. (1.2)
Collaboration: Government & NGO Programs 2. **Identify and partner with existing/ emerging related programs**	Planning of future projects should research and implement liaison with potential external collaborators. These include NGOs and Foreign/Local (National/Provincial) government programs. High-level Standing Principles should be agreed at Government/NGO level to (a) maximise synergies (b) acknowledge inputs appropriately and protect Intellectual Property.	The project was proactive in seeking to interact with other aid agencies active in the area, including USAid and UNIDO, in order to seek synergies. This created some benefits and disappointments: - Significant funding provided the infrastructure needed for new export value chains to emerge, applying ASLP Best Practices. - Best Practices Guidelines using ASLP information failed to include acknowledgments as agreed in good faith The benefits suggest that more resources could be justified to identify potential collaborators among NGOs as well as Foreign and Local government programs in Pakistan. It should be noted that it is not easy to unearth and understand the significance of various programs. The challenges suggest that there is scope to develop some Standing Principles for acknowledging inputs equitably and respecting Intellectual Property rights. These Principles could be extended to support the opportunities and benefits of collaboration. This may be an area for high level collaboration between Foreign governments and NGOs with interests in common. Such collaborations could reduce potential waste and increase options for sustainability and scalability of value chain projects.

	The ACIAR Policy program should be involved to strengthen engagement with outside agencies and NGOs.	
Collaboration: Industry bodies 3. **Build an effective industry organisation into the program**	An appropriate local industry group should undertake a senior role in the project, provided it can meet the required standards of performance, probity and accountability. This entity should focus on: - Developing in-house capability including project management and governance - Providing communication channels and facilitating linkages with industry participants and relevant external programs during and after the project. - Accepting accountability for further development of project outcomes into the future to maximise impact. In the case of ASLP Phase III (AVCCR), horticulture projects should appoint PHDEC to this role. This should take into account the	PHDEC has a clear mandate for industry and export development in horticulture in Pakistan. The project appointed PHDEC as co-leader, recognising the benefits that could accrue. Many of the benefits were delivered. However, some serious internal issues in PHDEC emerged that threatened the project and were not dealt with by the responsible government authorities until the final year. This resulted in the production-focussed projects (justifiably) avoiding the linkage with PHDEC, although such an association could have provided greater impact along the value chain. This comprised a significant opportunity cost. RECOMMENDATION: The principle of horticulture projects working closely with a (reformed) PHDEC should apply to any future ACIAR support.(4.4) This could be extended to other equivalent industry bodies and so a generic principle has been developed to reflect this. (Disclosure: The Pakistani reviewer was a PHDEC Board member in the past, prior to his resignation and the ASLP program partnership)

	major issues that arose in the Mango Value Chain Project, current changes in PHDEC Board and management and medium-term uncertainties regarding role and operations.	
Collaboration: industry value chain participants 4. **Be prepared to identify and develop new value chain participants**	Future projects should recognise that the ability to identify and work with highly motivated partners is a key success factor and plan accordingly. Planning should also take into account the lesson learned that existing vested interests are likely to resist engaging with a project that is facilitating change. Projects need strategies to bypass any such barriers. They should also be prepared to engage with any established enterprises seeking to improve value chains.	Typical existing rural-based transactions suffer from a lack of transparency. This enables distrust and conflict to flourish by decoupling rewards from value added. Opaque systems hide the price signals that could, and should, reflect consumer requirements. Value chain thinking focuses on the common interest of all chain participants in meeting consumer needs. In practice, few participants possess the motivation and/or means to drive the necessary changes. The mango project illustrated how both smallholders and medium-sized growers could develop chains that were transparent. These led to improved consumer satisfaction, creating a demand pull and increased income and profits for growers. These model value chains rely on identifying an effective industry leader with supportive collaborators (growers/co-workers). Identifying groups capable of forming the basis of a new value chain is a major challenge for value chain facilitators. The reviewers noted the experience of the project participants regarding "middlemen" in existing value chains. Neither established exporters nor commission agents in the domestic market were responsive to approaches from the project team. This reflects the fact that existing chains contain entrenched members who have a vested interest in the status quo. The (lack of) response comprised a major, but manageable, barrier to progress. The project leader was proactive in seeking other potential value chain participants. Strategies included collaborating with the ASLP Social project as well as being prepared to respond when partners emerged through serendipity. However, existing chains do comprise the bulk of the industry and so the reviewers felt that ongoing engagement was essential. All the project information was accessible to existing middlemen, should they choose to consider it. In addition, by the end of the project some of the established exporters were beginning to engage with the project to some extent. Some of these enterprises may have a key role in future value chains. For example, some grower participants mentioned the extreme challenges of managing chains as well as farms during an intense cropping season. There is a clear need for chain partners willing to share the task of meeting consumer needs. Value chains are based on each member contributing to this task and being rewarded equitably, based on the value added and risk taken.

		RECOMMENDATION: PHDEC and UAF should develop a plan for scaling out the value chain cluster models successfully demonstrated by this project, noting that: -Existing chains comprise the bulk of the industry and so ongoing engagement is essential. -Exporting is a major challenge for busy farmers so there needs to be some linkage with existing chains where middlemen might in future manage value chains on the basis of shared goals and more equitable rewards based on value added and risk taken. (3.1)
Collaboration: within ACIAR 5. **Identify, learn from and link to related ACIAR projects**	Engagement between related* ACIAR projects should be optimised. This should take into account the effectiveness of the social project in ASLP. *by country, by topic, by crop, also extra-project roles such as policy development	The ASLP program included a Social component which was reviewed separately. The Social project had two goals. Firstly, to foster collaboration between the existing industry-focussed ASLP projects. The reviewers support this concept but were not privy to any evidence of collaboration. Secondly, to increase the community impact of all the ASLP projects (particularly through ICT initiatives). The reviewers noted that some Community Centres established by the Social project were linked with value chain initiatives in the same villages. There was little evidence of the ICT component of the social project impacting on the success of the Mango Value Chain project. Nevertheless, the crucial role of online linkages in remote rural villages (including promotion and sales) is very clear. The Final Review for the Social component was not available to the reviewers. That review should be considered in planning future value chain projects. RECOMMENDATION: ACIAR to align the separate external review of the Social component of the ASLP with this Mango Value Chain review to inform future project planning.(4.2) RECOMMENDATION: ACIAR to publish findings from ASLP Social project regarding use of ICT to facilitate access to value chains by poor or small-scale growers and women and/or commission a review of this topic. (4,4)
Collaboration: Managing communications 6. **Build in a well-founded communications plan**	Ensure that a high quality communication plan is in place, including: - audiences, content, channels & evaluation - agency(ies) responsible for extension - links to project milestones to include regular review of communication plan goals and	The project amply demonstrated the wide variety of audiences and information that must be considered by value chain programs. This poses a major challenge, given the limits to funding. It is a difficult task to allocate appropriate resources to maximise value from communications efforts. As a simple example, in order to nurture pilot value chain initiatives, intensive one-on-one or one-to-few communication is needed. Once the key technologies are developed or the principles established, then broader communication is appropriate. There can also be scope for efficiencies by using established channels to impart information/training material or gain project publicity. The host country partners have a key role in this regard. However, it was not clear to the reviewers how extension responsibilities were allocated among these partners in the project. It may have been easier to assess how well the project had managed this process if a cohesive communications strategy had been developed. This could have helped identify and prioritise the key audiences and appropriate channels. It may also have assisted with scheduling and managing content and

	implementation - documenting project findings for stakeholders in a timely and professional manner - managing communications post-project. ACIAR should evaluate the need for capacity building support in communications planning and delivery.	evaluation. For example, the project produced high quality printed materials, including Best Practice Guidelines, Factsheets, Maturity Assessment colour cards, etc. However, it was not clear how the relevance and availability of such material would be maintained after the project concludes. RECOMMENDATION: A communications plan should be developed by UAF and PHDEC to manage resources and maximise value from communications efforts. (3.3) RECOMMENDATION: The agency responsible for extension should be identified and engaged and incorporated into this communications plan. (3.3)
Underpinning Know-how: Scientific capacity 7. **Consider how technical support will be provided after the project ends, to make the outcomes sustainable.**	Projects should request from recipient countries evidence of a well-founded strategic and adaptive approach to ensuring the availability of technical support systems. If this does not exist, future projects should include provision to work with country partners to develop such an approach and to build the capacity to implement it. This may be in parallel with developing/upgrading some specific high-priority facilities to address immediate program needs.	The project was largely responsible for the accelerated development of the Postharvest Lab at UAF in Punjab Province. This was achieved by identifying and supporting the leadership skills of the Director, Prof Malik. This lab is understood to be a world-class market-focussed teaching and R&D facility, benefitting a range of crops. During the project. It undertook research and training covering both the Punjab and Sindh mango industries. However, the reviewers note the expected increased volume of mango exports from Sindh Province and through Karachi. These will require highly responsive local postharvest services. In addition, other industries may need localised or crop-specific services in postharvest as well as other scientific disciplines. The establishment of the Postharvest Lab at UAF is an excellent example of capacity building (rather than simply providing equipment). However, it is an isolated example. It is unclear how the evolving needs for postharvest (and other) scientific services of a consumer-oriented horticulture sector will be served. In developing countries, government agencies need to provide both the underpinning science and ongoing services (eg diagnostics). This may evolve to user-pay and the eventual entry of commercial providers, as has occurred in developed countries (not always smoothly). There is no evidence of a cohesive strategic approach to addressing this issue, which is fundamental to underpinning the future development of horticulture in Pakistan. RECOMMENDATION: ACIAR should assist UAF and PHDEC to co-develop a well-founded strategic and adaptive approach to meeting the postharvest and other technical service needs of an expanding consumer-oriented mango sector (if no such plan exists) with specific attention to the Sindh industry.(1.4) RECOMMENDATION: ACIAR should make provision for the direct marketing group to have access to technical expertise on a needs basis, as well as ongoing training and refresher courses. (4.2)

		RECOMMENDATION: ACIAR should make provision for the womens' processing group to have access to technical expertise on a needs basis, as well as ongoing training and refresher courses. (4.3)
Underpinning Know-how: Marketing and Business management 8. **Consider how marketing and business support will be provided after the project ends, to make the outcomes sustainable.**	Value chain project planning must recognise the need for a foundation of market analysis, with additional research to be undertaken as value chains develop. Planning must recognise that marketing involves a range of different functions and partner selection should reflect this. Pro-poor value chains, in particular, are likely to involve participants with no financial management experience. Planning must be based on an understanding of the options available to manage this risk.	Marketing can be summarised as developing Products that are Placed (distributed) at a Price that comprises a value proposition for consumers. Once these are in place then the "fourth P", Promotion elements of marketing may be applied, to communicate with consumers. Any value chain project should be built on a foundation of market knowledge to inform the chain about consumer requirements and market behaviour. This knowledgebase is inevitably incomplete, but it provides a rationale for evaluating value chain opportunities. The mango project illustrated how market research preceded any other activity and how the knowledgebase was expanded over time to better inform the developing value chains. It also illustrated the need for value chain participants who were inexperienced in marketing to have access to ongoing advice and coaching (as required) in order to respond to ever-changing market dynamics. The Reviewers found the project had helped develop and strengthen the provision of marketing support at UAF and (latterly) at SAU. However, there was limited depth and breadth of marketing support at these traditional partner institutions. Their strengths in strategic elements such as consumer research, product development and quantitative market analysis were clear. However, these may not be matched by delivery of tactical expertise including coaching and advising value chain participants. Commercial providers may be more appropriate for providing these services. In addition, governance and financial management skills will be required, for example in the women's project. Failure to address this may put at risk the sustainability of this important achievement. RECOMMENDATION: ACIAR should ensure continued market research, out-turn assessments and importer training as shipments commence into new markets. (2.1) RECOMMENDATION: ACIAR should ensure ongoing access to tactical marketing expertise including coaching and advising for womens initiative value chain participants. Commercial providers may be more appropriate for this than UAF & SAU. (2.2) RECOMMENDATION: ACIAR should ensure ongoing access to tactical marketing expertise including coaching and advising for smallholder direct marketing value chain participants. Commercial providers may be more appropriate for this than UAF & SAU.(2.3)
Underpinning Know-how: Value Chain Project Management	Project planning must ensure the provision of highly-developed value chain project management skills to provide enabling leadership	A diverse network of participants and supporting skillsets is typically required to successfully create and manage just one (let alone a series) of value chains. However, this project illustrates that this complexity can be boiled down to two critical success factors: Firstly, the right participants and service providers are needed; Secondly, highly-developed value chain project management skills are needed.

9. **Select the project leader on the basis of well-founded and clearly defined selection criteria**	for value chain projects in developing countries. This could be based on a criteria matrix to be developed by ACIAR. ACIAR may need to undertake urgent capacity building in both Australia and Recipient Countries to develop the necessary project leaders. In any case, any ACIAR value chain project should include intensive leadership training in order to expand the cohort of value chain expertise required by the future industry.	The first factor involves many different people or entities and a variety of skills. Sometimes specialised skills are required (say postharvest pathology) but these need to be broadened to apply a whole-of-chain perspective. In contrast, the second key success factor is, in effect, the enabling leadership. The ASLP Mango Value Chain Project was led by a person with decades of experience in facilitating a wide range of successful rural-based value chains. This is a crucial part of the context. The project leader's experience was built on (and helped build) a foundation of extensive academic research, publication and graduate, postgraduate and industry-level training. Much of this training used action research – "hands-on", practical-based "real world" learning. This occurs in the highly variable commercial and technical environments typical of horticulture – both in Australia and in developing countries. Such credentials are rare anywhere and may be difficult to replicate. However, they are summarised above to emphasise how crucial it is to build in a clear set of leadership requirements for horticultural value chain projects. Employing the project leader on the basis of academic seniority, in-country experience or other such criteria is wholly inappropriate and risks rendering any such projects Dead on Arrival. This emphasises the need for urgent attention to expanding the range of people capable of providing the enabling leadership required. These leaders are crucial for future AVCCR and similar ACIAR value chain projects. In addition, large numbers of skilled and value chain-aware project managers will be essential to the expanding, value-oriented horticulture sector that the AVCCR no doubt envisions Importantly, this project included intensive, hands-on, value chain training which delivered a handful of highly competent locals with future enabling leadership potential. RECOMMENDATIONS: ACIAR should capture the value chain leadership training approach applied by this project. ACIAR should also develop a matrix of criteria to aid selection and/or ongoing upskilling for future project leaders. ACIAR should initiate urgent capacity building in both Australia and Recipient Countries to develop the necessary project leaders. This should consider other training options including the new Agribusiness course at UAF.
Underpinning know-how: Pro-poor, pro-women context 10. **Draw on available learnings to**	Any future projects should also be planned on the basis of a review by ACIAR of the significant pro-poor literature and its application to the ACIAR context. The mango project provides excellent case studies which	The mango value chain project developed two highly successful models of pro-poor value chains: 1. Mango pickle production by women in two isolated rural villages (based on food science research as well as the ASLP Social project). 2. Direct sales of mangoes by smallholders based on adopting practices to markedly improve fruit quality. Both these models appear to be highly scalable. These successful initiatives have an important role as case studies for future pro-poor, value chain projects, provided the challenges as well as successes are communicated. One of the challenges is managing their

build a sound case for how the project will provide sustainable pro-poor, pro-women benefits	should be considered by any future projects. These examples match ACIAR's plans for increased emphasis on projects with a pro-poor/pro-women and girls emphasis, as well as an enterprise-building, value chain focus. The value of including a social component to further increase pro-poor impact should be considered based on the ASLP experience.	ongoing sustainability. The reviewers recommended that both projects should have access to ongoing marketing and business management support, as necessary. The ASLP Social component was designed to provide a pro-poor, pro-women perspective to the program, but the reviewers were not able to assess the value of the Social component to delivering these results. RECOMMENDATION: ACIAR to align the separate external review of the Social component of the ASLP with this Mango Value Chain review to inform future project planning.(4.2) (As noted above under Collaboration: within ACIAR) In addition, there is also a wealth of literature on pro-poor value chains including from major aid agencies. This has the potential to inform future ACIAR projects but there appears to be no overall ACIAR strategy regarding this. RECOMMENDATION: ACIAR to initiate an urgent review of the literature on pro-poor and pro-women value chains (including from major aid agencies) including aspects of scalability to inform future project planning. ACIAR to apply review findings to capacity building initiatives for value chain project personnel.(4.3)
Project Review: Monitoring & Evaluation 11. **(TBA) Include a self-review mechanism**	If the approach used in the mango value chain internal review is rigorous and helpful, then in principle, all future projects could consider including some self-review mechanism.	The mango value chain project added a review component (Objective 5) in the final extension year with the savings from project funds. This incorporated an existing M&E output in Objective 4 but significantly extended it. This work was not complete at time of review, but could have great value in adding both qualitative and quantitative analysis to the qualitative comments of the review team. RECOMMENDATION: ACIAR to consider the internal review (Objective 5) alongside this external review of the Mango Value Chain project to inform future project planning. (5.1)