

Facilitating the dairy market system in Nepal: A participatory approach

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This paper presents the experiences of Practical Action's use of Participatory Market Mapping Workshops (PMMWs) to facilitate a process that allows marginalized dairy farmers in Nepal to gain access to more functional markets, sell their milk, increase their incomes, and help create a more favourable business environment. It illustrates how these achievements have resulted from Practical Action working as a facilitator with market actors to build common and shared understanding of the market system and nurture increased levels of confidence, trust, and influence.

Using a visual representation of the market system – the Market Map – facilitators in the field use PMMWs to bring public and private market actors together to identify and discuss blockages and opportunities for increased coordination and collaboration.

For the participatory market mapping process to unlock the resources and creativity of public and private market actors, several conditions must be met. This paper gathers and analyses experiences, challenges, tips, and insights from PMMWs conducted in the dairy sector in Nepal, accompanied by an explanation of the principles on which Practical Action's approach is based: systemic thinking, participation, and facilitation.

Keywords: markets, value chains, facilitation, Nepal, dairy, participation.

Agriculture, market systems and systemic facilitation

The work focuses on helping poor people in rural areas to improve the markets they participate in

LACK OF OPPORTUNITY TO EARN a decent income remains one of the most critical dimensions of poverty for many people in the developing world. With 71 per cent of people in least developed countries living in rural areas and 65 per cent deriving their livelihoods from agriculture, almost all of it in food production (FAOSTAT, 2011), there continues to be a critical need to support rural food production to be more efficient, inclusive, and equitable so that poor people can derive from it a reliable and reasonable income.

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PMMWs are the starting point in Practical Action's facilitation approach to market development

Practical Action's international programme for Markets and Livelihoods focuses its work on helping poor people in rural areas to improve the markets in which they participate (Practical Action, 2009). This paper presents experiences of the Nepalese Markets and Livelihoods team to facilitate transformations in the dairy market system using Participatory Market Mapping Workshops (PMMWs). These workshops serve two purposes: first, they contribute to understanding parts of the market system, from its value chain channelling milk from the producer to the end user with the support of critical inputs and services, to the institutional and business environment that shapes how effective this process turns out to be. Second, and more importantly PMMWs are the starting point in Practical Action's facilitation approach to market development.

Practical Action's approach is called Participatory Market System Development. It builds on the organization's extensive experience and lessons learned over approximately four decades of trying to help poor people build sustainable enterprises in rural contexts, and draws heavily on continually developing international best practices (Practical Action, 2005). In its pursuit of achieving sustainable impacts on poor people's income and job opportunities on a large scale, the Participatory Market System Development approach sits at the intersection between three fundamental guiding principles, as illustrated in Figure 1 (Practical Action, 2009).

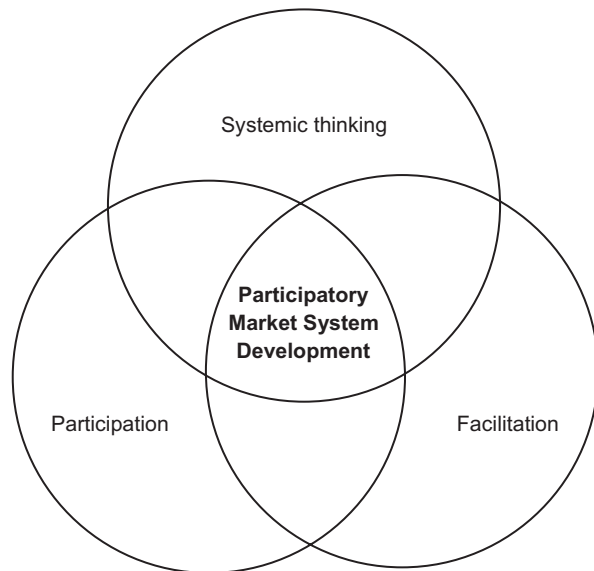


Figure 1. Three fundamental guiding principles of Participatory Market System Development

A systems approach to enterprise development was firmly established by 2005

Working systemically

A systems approach to enterprise development began to emerge from 2002 and was firmly established by 2005 (cf. for example Katalyst in Bangladesh [Bekkers et al., 2008] and PROFIT in Zambia [Bear and Field, 2008]). This approach became central to both analysis and intervention planning across the enterprise development field, whether it was referred to as value chain development, market development or pro-poor enterprise development (Jones and Miehlsbradt, 2009). Practical Action adopted a systemic approach to market development in 2002. This was in recognition that its past enterprise development efforts to improve the access of marginalized people to skills and technology options and later to business development services often had limited success in delivering sustainable impacts because of weak linkages of marginalized people to the wider systems (Griffith and Osorio, 2008).

Systemic thinking in enterprise development has since been codified in guideline resources such as the UK Department for International Development (DFID) and the Swiss Agency for Development and Cooperation's (SDC) Making Markets Work for the Poor (M4P) framework, and USAID's Microenterprise Learning, Information and Knowledge Sharing (Microlinks) platform (Springfield Centre, 2008; Microlinks, n.d.).

Systemic concepts of interconnectedness, interdependency and interaction of the parts of the system, together with the inherent feedback loops which promote and inhibit change, means that in practice market development practitioners should 'take into account ...critical actors, the relationships among them, and the context that influences how they behave and interact in the market' (Griffith and Osorio, 2008; c.f. Ramalingam et al., 2008). Pursuing systemic changes in market development involves developing a vision for a more efficient, inclusive, and equitable market system and working from a number of angles with critical market players to achieve this goal in a self-sustaining way.

Market development involves a more efficient, inclusive and equitable market system

Genuine participation

Systemic challenges in a market system involve many different actors, and solutions require coordinated action. Practical Action believes that it is absolutely essential that all the actors are involved in the process of developing an understanding of the entire system, identifying and addressing challenges, and exploiting the opportunities. Genuine participation means that the process of intervention planning and action is led by market actors – and therefore they feel a strong sense of ownership over it. This is essential to ensuring that the transformations persist after the end of Practical Action's involvement (ACDI/VOCA, n.d.).

Acting as facilitators

Facilitation of market development aims to assist market actors to build relationships and undertake collaborative action ‘that enhance their ability to continuously improve their productivity, thus [the] competitiveness and sustained economic and social gains’ of market systems (Gerstle et al., 2008). For Practical Action in practice this means above all to avoid entering the market system and delivering missing or problematic market functions themselves. In particular, for example, Practical Action’s teams avoid becoming input or service providers or acting as marketing agents. Because Practical Action and its partners do not unblock systemic constraints directly, the onus of intervention shifts onto catalysing market actors to address blockages themselves. Nurturing tacit characteristics of confidence, trust, and influence of market actors and their relationships with each other becomes critical to achieving sustainable transformations in the market system.

The onus of intervention is catalysing market actors to address blockages themselves

Furthermore, facilitation is an essential part of building the capacity of actors to react adaptively to their often fast-changing market context. The challenges and opportunities identified at any point in time will most likely not be the same issues that the market actors will face in the future as their system changes. The facilitation approach builds the capacity of market actors to collaboratively solve their own problems as they encounter them, and strives for an in-built adaptive sustainability which direct intervention cannot achieve.

Mapping the market: A framework to analyse the system

The Market Map has evolved into the central core of the Markets and Livelihoods team’s work: a framework of analysis of market systems that involves the poor and a tool for guiding interventions (Albu and Griffith, 2006).

The Market Map is an analysis framework and a tool for guiding interventions

Taking a systemic approach, the Market Map integrates three dimensions of markets that together describe the entire complex system in an intuitive visual representation. These three dimensions are the ‘market chain’, the ‘supporting input and services’, and the ‘enabling (or disabling) institutional and business environment’. Figure 2 shows the Market Map for the dairy sector in western Nepal, covering the districts of Dhading, Tanahu, Gorkha and Chitwan. This particular map is the result of a series of situational and policy analyses, preliminary market mapping and scoping studies, and most importantly PMMWs in each district carried out between 2008 and 2010.

In the middle of Figure 2 is the market chain. This is the core of the market system, and describes the flow of money from final consumer to primary producer along the chain of economic actors who buy, sell, and produce a particular product. In this example, it is possible to

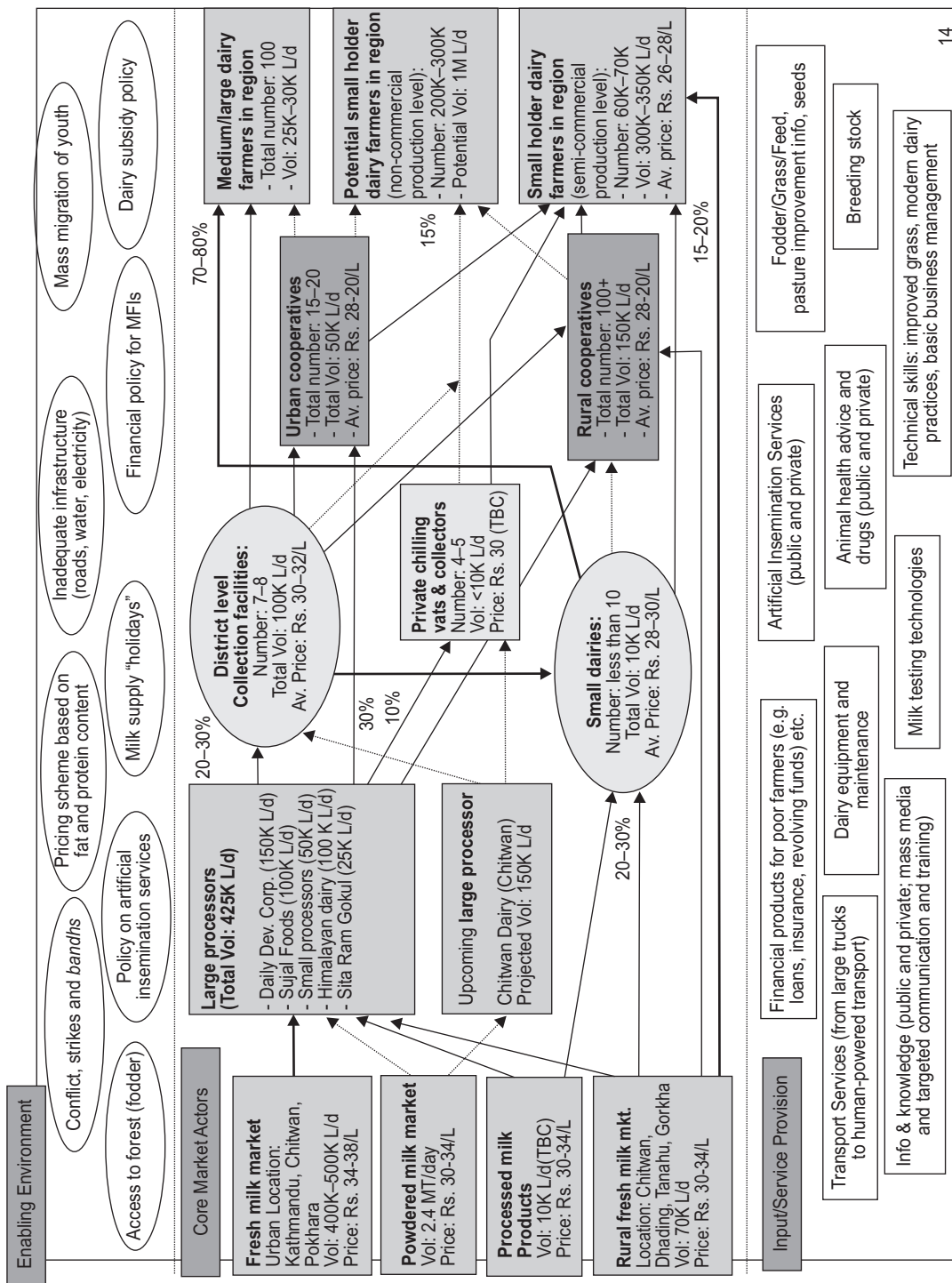


Figure 2. Dairy Market Map in four districts of western Nepal

observe the different channels through which smallholder, medium- and large-scale dairy farmers sell their milk. This milk goes on to be traded through urban and rural cooperatives, collection facilities, or processed by large firms, before reaching a variety of end-markets for milk and dairy products. Percentages are shown to give an indication of the primacy of different channels. The volumes and prices of products as they pass through the chain are marked under each set of market actors. Importantly, the Market Map also highlights the new, upcoming, large-scale dairy processor, Chitwan Dairy Project (now Chitwan Milk Ltd), and its projected volume, together with the potential for new smallholder commercial dairy producers.

Underneath the market chain, the framework invites an analysis of the inputs and services that are essential for the market chain to operate. Figure 2 shows a number of critical inputs and services in the western Nepal dairy market system, including financial products for poor farmers, fodder, grass and feed, veterinary services, and equipment for collectors and processors.

Finally it is important to analyse the institutional and business environment in which the market system operates. This Market Map captures broad issues such as the mass migration of youth out of rural areas and conflicts, strikes, as well as factors that are much more specific to the dairy sector, such as artificial insemination service practices and the government-influenced pricing scheme of milk.

A key lesson learned by the Market and Livelihoods teams on the ground is that when the Market Map is used in a participatory way, it becomes a powerful tool to unlock collaborative action among market actors that leads towards a common goal of increasing competitiveness in the system. Strengthening relationships and linkages in the market system requires careful facilitation, and PMMWs work well to create the space for this to happen. They prepare the ground for introducing or generating innovation in products, processes, and market access. This is therefore proving to be an important intervention in its own right. PMMWs bring together a wide variety of market actors and policy-makers to construct and elaborate the Market Map, each with their own unique perspectives about the system in which they all operate. Drawing on these different views and knowledge, the Market Map becomes a platform for common and shared understanding among the market actors, paving the way for further interaction as a result of the increased trust that mapping dialogues nurture. The workshops facilitate participants to take the Market Map and use it to diagnose the opportunities and blockages in the system together and discuss possible win-win solutions. This process forms the basis of the strategic interventions and focus of further facilitation to develop joint action plans.

It is also important to analyse the institutional and business environment in which the market system operates

The Market Map is a powerful tool to unlock collaborative action among market actors

Facilitating PMMWs: Experiences from western Nepal

Practical Action carried out four PMMWs in Chitwan, Tanahu, Dhading and Gorkha in 2009 as part of its dairy scoping studies. In June 2010, it commenced the UK aid-funded project named Dairy Market Access for Smallholder Farmers (DairyMASF) in these four districts. The purpose of DairyMASF is to improve the efficiency of the subsector in ways that enable at least 10,000 poor farmers to commercialize household milk production and pull themselves out of poverty (MASF, 2010). A further four PMMWs were conducted as part of DairyMASF early in October 2010 as a means to build momentum for collaborative action. The most recent PMMWs lasted five to six hours and cost around NPR35,000 (GBP £300 or US\$450).

93% of responding households had increased annual income of between 38 and 110%

In its mid-term evaluation, the DairyMASF reported that 93 per cent of responding households stated they had experienced an increase in annual income since commencement of the project. This increase was on average NPR26,800 (£239, \$366), equivalent to a 38 per cent increase in income. In Tanahu, where the poverty of project beneficiaries is particularly acute, average annual income grew by more than 110 per cent. Respondents reported that the causes of these increases were consistently attributed to DairyMASF project interventions conceived through the PMMW process (MASF, 2011).

The three stages of PMMWs

For the Nepal team, the PMMW process comprises two main parts, strategic planning prior to the actual event and careful facilitation at the workshop itself. The workshops must then be followed with a period of active facilitation of further activities to grow the seeds sown during the workshops into sustainable, systemic change. Depending on the outcomes of each stage it may be necessary to return to an earlier stage and go through another iteration of the process. The three stages are presented in Figure 3.

The remainder of the paper considers the rationale and objectives of each activity in the process in Nepal, and describes some of the key lessons learned with contextual illustrations based on the team's work on the western dairy subsector.

Stage 1: Strategic planning

Market system selection. The Markets and Livelihood team in Nepal had already identified the dairy subsector as a market system with strong potential from a strategic point of view. Using value chain selection tools adapted from Action for Enterprise's approach (Lusby and Panlibuton, 2007), the team had analysed a number of agricultural

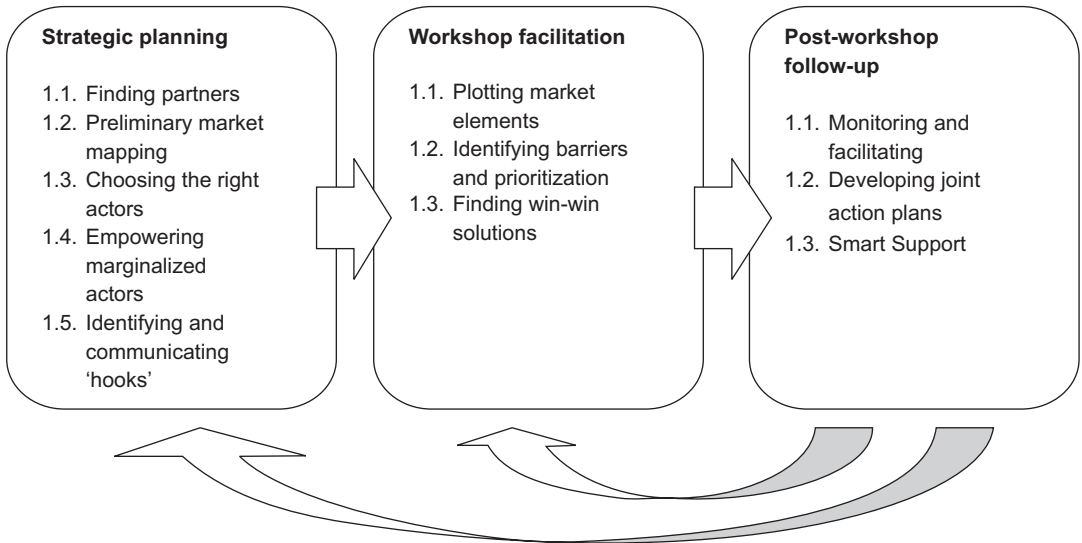


Figure 3. Three stages of the Participatory Market Mapping Workshop process

sectors in Nepal against criteria that combined potential for robust economic growth and potential for involvement of the poor and marginalized. The team focused their efforts on this single subsector. Effective market development requires a deep understanding by the project team of the system and its actors, and constant and responsive energy on the part of the facilitators. The narrow focus on the dairy subsector enabled the team to gain the required depth of understanding and targeted energy.

Trust between facilitators and market actors gets the development process started

Finding and training local partners. Facilitators of participatory market system development must be well-trained in the systemic thinking, participatory methods, and the facilitation approach. At the same time they must know the working area well and have good relationships with the local market actors. A basic level of trust between the facilitators and the market actors goes a long way to get the development process going, and in particular get a PMMW off to a good start.

The Nepal team partnered with four local NGOs, one in each working district, which had already worked with the farmers and other market actors. When selecting the NGOs, the team looked for partners who showed evidence of innovation and positive mentality towards change and learning as well as more traditional criteria of experience, effectiveness, efficiency, and accountability. The team also sought and gained the support of the Chitwan Chamber of Commerce and Industry (CCI). These partnerships were formed in the early stages of

Nepal's dairy programme, before dairyMASF was designed or awarded. Practical Action sought considerable input from the partners in the framework and design of what became dairyMASF through a series of 'write-shops'. Both Practical Action and the partners acknowledge this process was incredibly important in achieving a strong sense of shared commitment and motivation towards the project.

Together, these six partners delivered the PMMWs and continue to support the ongoing DairyMASF development process. Training these local partners thus became a very important early part of the process. Two facilitators from each of the local partner organizations and the Chamber of Commerce were given extensive orientation and took part in a mock market mapping workshop. The orientation covered the rationale behind the choice of subsector, principles of the participatory market system development approach, the objectives of the workshops, and the format of the Market Map. Finally, and most critically, Practical Action built the capacity of the NGO partners to act as facilitators, to provide guidance to market actors, to identify constraints and opportunities, and to nurture trust between them so that they could begin working together to improve their practices in a mutually beneficial manner.

Practical Action
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Preliminary market mapping. Building on the Markets and Livelihoods team's extensive understanding of the dairy subsector from their past scoping studies, Practical Action and its partners carried out preliminary mapping of the market system in each district and at the regional level as part of the capacity building orientation. This was carried out largely internally, seeking the input of only a small number of sector informants in the public and private sector (District Livestock Service Office, Livestock Service Centre, milk cooperatives, and small dairy processing firms). The purpose of this was to develop an understanding amongst the implementing team so that they could plan ahead for the participatory workshops. The preliminary mapping process identified critical blockages likely to be highlighted by the market actors during the PMMWs and identified possible and feasible win-win solutions that the facilitators would likely help the market actors to agree on.

Preliminary
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market actors
during the PMMW

Through this process the partners identified a number of issues:

- cattle feed (absence of low-cost commercial feed, lack of skills amongst farmers on low-cost feed production, limited access to natural high nutrient fodder);
- natural breeding and artificial insemination practices and policies;
- limited market for investment loans and cattle insurance excluding smallholders;
- poor access and delivery of reliable veterinary services;

- patchy collection and transportation chains between smallholder farmers, through local cooperatives to processors.

These issues did not all look equally challenging to the team. The teams discussed possible solutions for all, focusing in particular on the 'low-hanging fruit', those issues that seem easiest to address.

Choosing the right actors. There is an important tension about how many actors to invite to the workshops. A greater number of participants can help to develop a more detailed and multi-perspective Market Map. However, facilitators struggle to support the process of dialogue with so many different views and perspectives, especially with some of them very opposed to each other at the beginning of the process. The team struck the balance by casting the net as wide as possible, while ensuring that no more than 30 participants attended in total. For Chitwan, the team identified amongst others, smallholder farmers, milk cooperative representatives, a District Livestock Services Office (public sector) veterinarian, a forest officer from the District Forest Office (public sector), agro-vet retailers and artificial insemination providers, representatives of Laxmi Bank and other financial institutions, Dairy Development Corporation (parastatal), and representatives from the local and large-scale processors with networks in the area. Anticipating the dynamics and issues of the participatory workshops, some actors were also selected for their facilitative nature (for example the district Chamber of Commerce and Industry), their particular expertise and insights on a relevant subject (programme officer of the GTZ support office in Chitwan), and their power and influence on other market actors (for example the chairperson of the District Milk Cooperative Association).

The project brought together local milk buyers and sellers to discuss issues around quality and perishability

Workshops helped a large-scale dairy processing firm to sponsor animal health clinics

In later stages of DairyMASF, the team facilitated further multi-stakeholder meetings, this time focusing on inviting market actors clustering around a specific system constraint. For example, the project brought together local buyers and sellers of milk to discuss issues around quality and perishability. A wide-net approach at the time of the market mapping is important to help market actors appreciate the wide-reaching impact of systemic constraints. The process can help stakeholders to take an interest in, or even lead action to address, constraints that are distant from their core business, but fundamentally affect it. For example the workshops helped the large-scale dairy processing firm, Sita Ram Gokul, decide to sponsor animal health clinics, in recognition that cow health is critical for the efficiency of their supply chain.

Empowering the marginalized actors. Farmers are willing to invest time and resources to overcome market failures. However, they have been

subjected to many unfruitful workshops before and some of them are sceptical about NGO interventions. This is very much the case in Nepal. In the dairy market, the Nepal team caught the farmers' attention by framing their invitation in terms of linkages to milk buyers and explaining later that this would only improve if they carried out market mapping and also accounted for other factors such as institutions in the business environment, supporting services, and input systems.

Once farmers' interest was gained, the local NGO partners convened an initial meeting so that they could choose their representatives. DairyMASF works directly with 10,000 smallholder farmers across four districts and selecting good representatives is a difficult but key process. Representatives must be farmers in whom the other farmers trust; they should represent the varied opinions of others; they must be able to participate effectively without personal biases; they should communicate well with other market actors, and – most importantly and usually the missing component – they must be able to go back to the community to report the key findings of the discussion and share any joint action plans. It is important that representatives do not capture any beneficial arrangements only for themselves. Selecting and training the right people as representatives also helps to get farmers excited about participating instead of seeing the workshop as a place to discuss their grievances about the political situation and the lack of government services, thereby alienating the others.

Making sure that farmer representatives are well prepared for participation in the market mapping workshops is a step that tends to be forgotten or brushed aside in the haste to leap from preliminary, non-participatory analysis to facilitative action. When this happens, the PMMWs can lead to a biased market map with low quality inputs from our target beneficiaries. One of the critical findings of the Nepal team's experiences is the importance of correctly preparing the beneficiaries for engagement. It is not about coaching them on what to say but at the same time they do need to understand the importance of the event and the opportunity presented to them to voice their opinion (Khadka, 2009). There is a fine line between coaching farmer representatives and giving orientation. The main aim is to prepare them to address the questions that will arise. In the dairy case, the empowering process was fundamental for the success of the workshops.

Identifying and communicating hooks. Identifying the right market actors for the PMMWs does not mean that they will attend. Therefore, any contact with the market actors can be a potential hook to attract their attention (or a repellent). Hooks are clear incentives and reasons for people to participate. The project team worked with

With 10,000 smallholder farmers across four districts, selecting good representatives is a key process

Hooks are clear incentives and reasons for people to participate

partners and farmers' representatives to decide what would motivate different market actors to attend the workshops, who should issue the invitations and what the message should be. Invitations were tailored for each set of market actors and questions about where and when the workshop should take place were also taken into account. The team met individually with some market actors including Sujal Food and Chitwan Milk, local agro-vets, government line agencies, and private banks, and used appropriate hooks to demonstrate the need to attend this workshop. Messages were clearly focused on the hook.

In hindsight, the team also realized that offering the market actors the opportunity to promote themselves at the workshop event would have also been an additional hook. This would have conveyed the message that the workshop was a business opportunity that would generate clear action plans. In particular the Chitwan workshop was advertised to private sector companies by the Chamber of Commerce and Industry rather than the partner NGO, indicating a business-oriented event, as opposed to an NGO-driven one.

Stage 2: Implementation of the PMMWs

The success of a PMMW depends on many things, including the level of preparation during the strategic planning phase and the level of follow-up facilitation and support provided after the event. However, the workshop itself must also be properly facilitated and some tips for facilitators suggested by the project team and the partners at DairyMASF are presented in Box 1.

Plotting market elements. Figure 2 shows a regional Market Map for the dairy subsector in western Nepal combining the findings of the four district Market Maps. The first activity in the PMMW is to work with the market actors to develop a similar picture with this same structure. The facilitators found it intuitive to plot the central market chain first, followed by the supporting inputs and services. The Market Map was completed with the institutional and business environment analysis. It is important to keep in mind that most actors tend to focus their mapping too narrowly on their own spheres of work and influence. One of the points of making market mapping participatory is drawing on the multiple subjective perceptions of the different market actors to build up an objective and accurate picture of the market.

The facilitators in the Nepal dairy workshops consistently found that market actors lost interest when the market systems started to be plotted. Despite the fact that the mapping process was highly participatory and presented pictorially in an intuitive way, some parties became disengaged. Farmer representatives were very involved in

Box 1. Tips for facilitating Participatory Market Mapping Workshops

- Have an expert to back the facilitator to inform the process. Avoid the situation where the facilitator also acts as the expert.
- Let the discussion flow and be driven by the market actors. Guide it when necessary with open questions (what, where, when, how, why). Become more active when managing conflict.
- Translate what skilled actors' interventions mean in practical terms for the farmers and other vulnerable actors. Avoid an overload of unnecessary information that might overwhelm them.
- Enable a demand-oriented process. This requires the facilitator to give plenty of time for the market actors to identify with the Market Map framework and use it autonomously to map their system.
- Allow discussions to develop around solutions that were not anticipated by the preliminary mapping. Sometimes such a solution genuinely owned by the market actors is better than a more optimal solution that the participants were coaxed into by the facilitator. If a 'wrong' solution is discussed in detail, it is likely that the market actors will realize its flaws themselves. If they do not, the facilitator can drop hints about these flaws to help the market actors develop a better understanding of the advantages and disadvantages and implications of their suggestions.
- When realizing that participants are arriving at 'wrong solutions' in the facilitators' opinion, calculate the resources that are going to be invested in those solutions to see if there is room for experimentation. Share with the market actors these estimations; it is important that they know the risks that they are taking with any action or change of behaviour.
- The more conversation amongst the market actors and the less facilitation is a good sign!
- Ensure that strategic planning activities are well implemented to allow for balanced participation and progress that involves all the right actors. Make the participants feel welcomed, and important (use round table seating!). Try to avoid protocol barriers politely.
- Ensure a results-oriented workshop style and maintain focus.

Farmer
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process

the process whereas government agency staff were particularly hard to involve. The facilitators were challenged to find interesting and innovative ways to engage as many of the different actors as possible. At the same time the facilitators also had to balance conciseness with the high level of detail required for the Market Map. Some elements of the completed map, such as information on percentage flows through channels, volumes, and prices could only be estimated during the workshops and their details were filled out later using other sources of information. Nonetheless attempting to consider these quantitative issues in the workshops is an important part of helping the market actors to understand their market system.

Identifying barriers. Conflicts arose quickly when identifying barriers. This may be inevitable when the workshop has market actors with vested interests and who are used to doing business with each other on largely acrimonious terms. Facilitators found that at times some

Facilitators led the dialogue past conflict by asking well-placed questions to move the conversation onto possible solutions

issues were so contentious that any momentum in the dialogue that was built up during the mapping process could be lost at once around a single blockage. In these circumstances, facilitators found two factors very helpful: when a blockage that was causing a hang-up had been identified in the preliminary mapping process, and the partners had discussed a possible solution, facilitators could help lead the dialogue past the conflict by asking well-placed questions to move the conversation onto possible solutions. The facilitators also found it useful to move onto more low-hanging fruit; focusing the workshop on some of the less intractable issues could help to build the positive momentum again.

Finding win-win solutions. If the strategic planning is done properly, facilitators should enter the workshop with a good idea of the constraints that are likely to be identified by the market actors and possible solutions for at least some of them. However, facilitators must be careful about how they use this information to direct the workshops. The purpose of participatory workshops is to achieve genuine ownership of the process by the market actors themselves. If the facilitator coaxes the market actors too heavily towards a set of predetermined solutions, this can defeat efforts to achieve a market actor-led process.

However, market actors often need some cues to help them orient their thinking towards win-win solutions. This is because they often see their business relationships as zero-sum, with one actor's gain necessarily being another's loss. Seeking coordinated and collaborative opportunities necessary to resolve systemic constraints is not easy when relationships are weak and levels of trust are low. One of the reasons constraints endure is because they cannot be addressed by a single market actor working in isolation. In the case of the dairy market system in Chitwan, critical constraints and the opportunity for a win-win solution were well understood by the facilitators because of their extensive strategic preparation. The objective of the PMMW was then to connect each market actor's partial view with a common understanding of the situation, and then work off their shared frustration to catalyse collaborative action.

Sujal Foods was operating a 100,000 litre per day plant at around one-third capacity because of a deficit in the milk supply. Laxmi Bank, the corporate financier of Sujal Food, was anxious to make the processor profitable. The district Chamber of Commerce and Industry saw the high potential for growth in the district and regional dairy sub-sectors and was therefore keen to make milk a top priority product (together with poultry and honey). Farmers were keen to increase their productivity but struggled on a number of fronts: decreasing availability of fodder and limited outreach of government extension

Market actors often see their business relationships as zero-sum, with one's gain being another's loss

and veterinary services during and after the conflict period. During the discussions farmers argued that Sujal Food's prices for farmers and cooperatives were not as attractive as the other new buyers entering the market such as Chitwan Milk. The Sujal Food representatives responded by proposing a new plan to provide chilling vats and veterinary services to those farmers who were able to deliver at least 500 litres of milk a day. From that moment on, the farmers and Sujal Food could not stop discussing this possible solution and the conditions to make it a reality. The facilitators did not intervene in the discussions and allowed them to work out a mutually acceptable deal. Sujal Food attended the workshops in all four districts and the company included several elements discussed by the market actors in their corporate social responsibility reports and in their business strategy to consolidate the supply chain. Likewise, representatives of Laxmi Bank listened to the farmers and started discussing new financial products for them. These experiences demonstrated that when two willing parties meet and discuss each other's problems, collaborative solutions through coordinated action can emerge which benefit all involved. The success of the workshop depends upon engaging actors who can be convinced about interventions and ideas proposed by others. Social pressure sometimes plays a pivotal role; Box 2 describes an example of this.

The workshops can also encourage competition: in the workshop described above, staff from the Bank of Kathmandu, a main competitor of Laxmi Bank which also invests in the dairy sector, found themselves on the sideline, listening to emerging ideas for new collaborations. Not wanting to be left out, they engaged in the discussions, but to date they have yet to come up with new and competitive products and services. Nonetheless, the workshops play an important role in

Box 2. Leveraging social pressure

Although not occurring during the dairy Participatory Market Mapping Workshops, the story of social pressure experienced by the team as part of their work on vegetable market systems in the far-western districts of Nepal is instructive. The team brought together government officials, NGOs, farmers, and other actors to discuss possible solutions to problems of produce collection, storage, and marketing.

One of the NGOs said that it would provide 50 per cent of the funds for a collection and storage centre. Immediately farmers looked to the government representatives in the room as if to say: And what are you going to do about it? No one said anything, but the question was definitely implied. They were between a rock and a hard place and found themselves committing to contributing funds also. Of course once they had said it in a public space and it had been noted, it meant at least they would have to explore it: explore how they could honour their commitment or at least how they could wriggle out of it without losing too much face (Khadka, 2009).

fostering competition, as well as other DairyMASF events, such as trade fairs, where evidence of new arrangements are shared with a large group of stakeholders.

It is important to manage expectations of both market actors, the project team, and partners

It is important to manage expectations of both market actors and the project team and partners. Trust builds over a period of time, and however successful a PMMW may seem, one cannot expect much progress towards optimal arrangements to be made initially. Nonetheless, making progress towards improved terms of business around some of the low-hanging fruit constraints is a powerful first step. If market actors feel that something has been achieved early on, they will be more open to continuing the market system development process, and the project team and partners will be able to continue to nurture trust and develop relationships between market actors, leading to further transformations in the future.

Stage 3: Post-workshop follow-up activities

PMMWs are a strong first step in the process of facilitating systemic change, but they are nonetheless only a first step. The workshops must be followed by well-planned and adequately resourced further activities. Such resources were not available when Practical Action carried out PMMWs in 2009. However the workshops conducted in 2010, as part of the larger DairyMASF project, were coupled with resources for follow-up activities.

Monitoring and facilitating continued relationship-building. The project team and partners should continue to seek opportunities to bring together market actors, build trust, and leverage improving relationships to achieve tangible new business arrangements.

One tool used to do this in Practical Action's work in Bangladesh is the Relationship Matrix. Originally conceived by SDC Asia, the Relationship Matrix brings together small groups of market actors who have made commitments around particular market system constraints to review their progress on a periodic basis (Boquiren and Idrovo, 2008). Following participatory principles, these small workshops (like mapping workshops), not only allow the facilitators and market actors to review and monitor the changing system but also encourage further interaction and continued trust-building amongst market actors. This participatory reflection can build towards specific joint action plans and encourage market actors to keep on track. It also provides a space for facilitators to provide additional support where new issues or snags emerge after PMMWs (Practical Action, n.d. (3) (4)).

Participatory reflection can build towards specific joint action plans and encourage market actors to keep on track

It is also important to monitor how farmer representatives report back to their communities and the farmers they represent, assist them

to make changes, and ensure that benefits from new arrangements are shared. Understanding how the market system changes in the period after the PMMWs enables the team to organize follow-up facilitation activities.

Developing joint action plans. As market actors come to agreement on what to do to address constraints, the facilitator should help them put this down on paper. These joint action plans document how different market actors would each take individual but coordinated actions to achieve a common goal. This activity is unlikely to occur at the end of the PMMWs and, in order to make the joint action planning process as practical and effective as possible, the team in Nepal encouraged separate action plans around each 'side deal' involving small groups of market actors.

It is likely, however, that these solutions would not have emerged if the facilitators had not already scoped the opportunities and directed the market actors towards them. It was also important for the facilitators to know when to take a back seat and let the market actors deliberate and come to their own arrangements. These arrangements may not be what the facilitators were expecting or thought optimal, but strong ownership of the solution by the actors is almost always preferable and more sustainable. Different solutions may also emerge in different locations despite similar contexts. Specific arrangements will depend on the characteristics of local market actors and dynamics of their relationships. The role of the facilitator is to nurture interaction to build the trust of market actors. This is always an essential precondition to any mutual beneficial outcome.

Facilitating multi-stakeholder interest forums. When momentum builds among workshop participants around an issue in the institutional and business environment – such as a limiting policy or regulation – a powerful follow-up intervention is the facilitation of a multi-stakeholder interest forum. Interest forums allow market actors to continue the dialogue about the issue and seek to advocate collectively for its revision. Experiences of Practical Action in facilitating these multi-stakeholder interest forums (e.g. Hibiscus Forum in Khartoum, Sudan; Codelac dairy forum in Cajamarca, Peru; Coir Steering Committee in Matara province, Sri Lanka and Fisheries e-Forum in Sri Lanka; Livestock Forum in Guruve, Zimbabwe) suggest a number of characteristics should be nurtured. Forums should start out with a small and committed membership brought together around synergetic agendas and there should be strong leadership from the beginning. Coordination should be rotated in a periodic manner. Development should be organic and flexible: these forums do not need to be sustainable, nor is it necessarily desirable for

Forums do not need to be sustainable, nor is it necessarily desirable for them to be

Interest forums should not have an overtly pro-poor agenda – it will alienate some important actors

them to be; if members set out to address a particular issue, once this is achieved, participants may decide to disband the forum. There should be a general frugality to the initiative and costs should be shared. Members should recognize, validate, and provide each other with mutual support, as this will help build up trust between them. Communication internally and externally should be a primary priority. Expectations should be carefully managed and benefits should be shared in a balanced manner. Very importantly, forums should not be pro-poor in their agenda: successful interest forums involve actors seeking systemic change for personal gain, an overtly pro-poor agenda will alienate these important actors. Participation and the effective voice of the poor is, however, essential (Practical Action, n.d. (1)). Above all facilitators should maintain their sights on the objective of reducing their technical support over time as the interest forum builds up its autonomy.

Smart support. When resources allow, project teams can mobilize funds to support new initiatives and innovations in the market system to enable the implementation of action plans. This kind of support amounts to subsidies – precisely what the facilitation approach warns against – and therefore these interventions must be carefully planned and used very strategically. In other words this kind of support must be ‘smart’ (Brown et al., 2010; MaFI, 2011). As part of DairyMASF the project team mobilized resources for a number of smart subsidy initiatives. DairyMASF joined forces with Nimbus, a leading feed manufacturer and distributor to research, develop, and field-test a high nutrient, low-cost feed for improved cattle breeds specifically targeted at smallholder farmers. The successful field trial indicated that by changing feeding patterns, smallholders could increase their milk productivity by 19 per cent, increase the fat content proportion by 5 per cent, and solid non-fat content proportion by 3 per cent, without increasing their costs. This has since led to the roll-out of the new feed through the company’s brand and a national distribution network. DairyMASF has also funded and facilitated ‘Dairy Chautari’ events, which enable para-veterinarians and smallholder farmers to meet and coordinate veterinary service demand and supply. The rationale for funding these events is to demonstrate to private sector companies the benefits of supporting improved service provision to smallholder farmers to increase productivity and improve the quality of milk. A leading national milk processor has since begun sponsoring these events, an early marker of their post-project sustainability.

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Conclusion: Emerging outcomes and impacts

The DairyMASF mid-term evaluation reports that by June 2011, 10,400 smallholder farmers in Chitwan, Dhading, Gorkha and Tanahu were linked to private service providers, 96 per cent of which are within two hours of enterprises providing veterinary services and animal health inputs. Over 2,000 of these farmers have been part of financial product pilots and 6,100 have tangibly improved farming practices as a result of improved private extension service provision. Of these farmers, 4,665 are now supplying major processors through formal milk channels (MASF, 2011).

DairyMASF has continued to build on the achievements of the 2008 PMMWs in catalysing the private sector to deliver pro-poor systemic changes. In 2008 Laxmi Bank and Sujal Foods announced a non-collateral pilot loan scheme that would serve 30,000 rural farmers for buying cattle. DairyMASF continues to co-finance research with Laxmi Bank to develop appropriate financial products to dairy smallholder farmers. The project has provided technical assistance leading to functioning dairy chapters in all four local chambers of commerce and industries. These coordinate service supply and information dissemination to over 80,000 dairy farmers across the four districts. Project co-financing has also enabled Nimbus to develop and roll out the first low-cost, high nutrient feed for cattle nationally. DairyMASF is also helping Kathmandu-based processor Sita Ram Gokul to explore business models that increase systematic investment in building market linkages in inputs, services, and milk supply with smallholder farmers.

The sustainability of these emerging outcomes and impacts is yet to be seen. This paper indicates how they have resulted from Practical Action working as a facilitator with market actors to build common and shared understanding of the market system and nurture increased levels of confidence, trust, and influence. These tacit characteristics of market actors and the relationships between them are essential preconditions for lasting change. They unlock collaborative action based on private incentives that leads to systemic transformation genuinely owned by the market actors themselves. PMMWs are a powerful tool to kick-start this process, and help to ensure that value chain-wide transformations in efficiency and competitiveness are coupled with more inclusive and equitable market systems.

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Chambers of
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References

- ACDI/VOCA (undated) *Participatory Approaches to Value Chain Development*, USAID Accelerated Microenterprise Advancement Project (AMAP) Briefing Paper, ACDI/VOCA, USAID, Washington D.C.
- Albu, M. and Griffith, A. (2006) 'Mapping the market: Participatory market-chain development in practice', *Small Enterprise Development* 17.2: 12–22.
- Bear, M. and Field, M. (2008) 'Managing the process of change: Useful frameworks for implementers of making markets work for the poor programmes', *Enterprise Development and Microfinance* 19(2), 154–169.
- Bekkers, H., Miehlbradt, A. and Roggekamp, P. (2008) 'How to assess if markets work better for the poor: Experiences from the Katalyst Project in Bangladesh', *Enterprise Development and Microfinance* 19(2), 120–136.
- Boquiren, M. and Idrovo, I. (2008) *Facilitating Behaviour Change and Transforming Relationships: Field Application of Key Value Chain Principles*, USAID and ACDI/VOCA Accelerated Microenterprise Advancement Project microREPORT#141, USAID, Washington D.C.
- Brown, C., Fowler, B., Jeans, A., Osorio, L.E. and Snelgrove, A. (2010) *Smart Subsidies in Market Facilitation with a Focus on Agricultural Knowledge and Information Systems (AKIS)* Market Facilitation Initiative (MaFI) Discussion Paper, The SEEP Network and Livelihoods Network, Washington D.C.
- FAOSTAT (2011) *2008 PopSTAT for Total Population, Rural Population and Agricultural Population in Least Developed Countries* [website], The United Nations Food and Agriculture Organization, <<http://faostat.fao.org/site/291/default.aspx>> [accessed 1 July 2011].
- Gerstle, T., Elisberg, J. and Osorio, L.E. (2008) 'State of the Practice in Market Facilitation', *Market Facilitation Initiative (MaFI) Conference Synthesis*, 29 September–3 October 2008, The SEEP Network and Livelihoods Network, Washington D.C.
- Griffith, A. and Osorio, L.E. (2008) *Participatory Market System Development: Best Practices in Implementation of Value Chain Development Programs*, USAID and ACDI/VOCA Accelerated Microenterprise Advancement Project microREPORT#149, USAID, Washington D.C.
- Jones, L. and Miehlbradt, A. (2009) 'A 20/20 retrospective on enterprise development: In search of impact, scale and sustainability', *Enterprise Development and Microfinance* 20.4: 304–22.

Khadka, D. (2009) *Interviews: Comments and Recommendations for PMMWs*, Practical Action Markets and Livelihoods Programme, Rugby, UK.

Lusby, F. and Panlibuton, H. (2007) *Value Chain Program Design: Promoting Market-based Solutions for MSME and Industry Competitiveness*, Action for Enterprise (AFE), Arlington, VA.

MaFI (Market Facilitation Initiative) (2011) *Smart Subsidies in Market Facilitation Specifically for Agricultural Knowledge and Information Services (AKIS) Market Facilitation Initiative (MaFI) Synthesis of Online Discussion*, 23–25 March 2010, The SEEP Network and Livelihoods Network, Washington D.C.

MASF (Market Access for Smallholder Farmers) (2010) *Dairy Market Access for Smallholder Farmers Component Brochure*, Practical Action Markets and Livelihoods Programme, Rugby, UK.

MASF (2011) *Dairy Market Access for Smallholder Farmers Component Mid Term Evaluation Survey Report*, Practical Action Markets and Livelihoods Programme, Rugby, UK.

Microlinks (undated) *Microenterprise Learning Information and Knowledge Sharing: Knowledge-Driven International Development* [website], <microlinks.kdid.org> [accessed 2 July 2011].

Practical Action (2005) *40 Years of Practical Action: A Timeline* [website], Practical Action, Rugby, <http://www.practicalaction.org/docs/about_us/practical-action-timeline.pdf> [accessed 1 July 2011].

Practical Action (2009) *Markets and Livelihoods Programme Strategy 2007–2012*, Practical Action Markets and Livelihoods Programme, Rugby, UK.

Practical Action (undated) (1) *Learning Spotlight on Interest Forums: Critical Factors for Facilitation and Sustainability* [website], <<http://cdn1.practicalaction.org/i/n/4d92802c-2028-4e98-ae0-14542e33baf9.pdf>> [accessed 22 June 2011].

Practical Action (undated) (3) *Relationship Matrix: A Tool to Monitor Changes in Relationships between Market Actors – Lessons and Recommendations from Bangladesh* [website], <<http://cdn1.practicalaction.org/r/e/4d92804d-f15c-4c47-9e59-14542e33baf9.pdf>> [accessed 22 June 2011].

Practical Action (undated) (4) *Relationship Matrix: A Tool to Monitor Changes in Relationships between Market Actors – Guidelines* [website], <<http://cdn1.practicalaction.org/r/e/4d928028-d130-49ae-8267-14542e33baf9.pdf>> [accessed 22 June 2011].

Ramalingam, B., Jones, H., Reba, T. and Young, J. (2008) *Exploring the Science of Complexity: Ideas and Implication for Development and Humanitarian Efforts*, Working Paper 285, Overseas Development Institute (ODI), London.

Springfield Centre (2008) *The Operational Guide for the Making Markets Work for the Poor (M4P) Approach*, Department for International Development (DFID) and Swiss Agency for Development and Cooperation (SDC), Springfield Centre, Durham, UK.