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Samarth-NMDP Programme

Final Evaluation Report

Itad Ltd

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Oxford Policy Management

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Executive summary

1. Purpose of this report

This is the final evaluation report of the UK Department for International Development (DFID)-funded evaluation of the Samarth-Nepal Market Development Programme (Samarth-NMDP). Samarth was the first programme in Nepal to be designed according to the Making Markets Work for the Poor (M4P) approach.

As part of this evaluation we were asked not only to determine the impact of the programme but also to comment on the appropriateness of the M4P approach in Nepal.

This report will help inform programming decisions by both DFID Nepal and DFID globally. The evaluation results will also prove useful to agriculture linked departments within government of Nepal, to other stakeholders involved in agriculture market development in Nepal, and to the wider development community, especially those involved in market systems development.

2. Evaluation design and methods

The evaluation applies a theory-led, mixed methods approach, using contribution analysis. It draws on evidence from the evaluation of five programme sectors, sampled from across the programme portfolio. The evaluation applies a modular design, taking into account the diversity of the evaluation questions and the complexity of the Samarth programme:

Module A – Quantitative. The evaluation assessed the impact of four programme interventions, selected within the five identified programme sectors.

Module B – Qualitative. The evaluation conducted qualitative research in each of the five programme sectors with programme partners and other market actors to determine the extent and impact of market changes introduced by the programme.

Evidence from these two modules was synthesised in a **third module (C)** and combined with further enquiry at the programme level to produce the final evaluation findings and to assess the delivery and impact of the programme as a whole.

3. Context

3.1. Country context

Two thirds of Nepal's population are reliant on agriculture as a source of income, and the sector contributes just under a third of the country's gross domestic product.[1] Despite its economic centrality, agricultural growth has fallen by two thirds over the last decade and lags behind the country's neighbours in terms of volumes and productivity. The sector faces a number of key constraints including:

- **Challenges in distributing agricultural inputs** such as improved seeds and fertiliser to smallholder farmers.
- **Market failure for post-production services** including limited application of cleaning, sorting, grading, washing, packaging and storage, which limits opportunities for greater distribution of quality produce and drives farmers to sell produce immediately and at farmgate, constraining their bargaining power.

[1] FAO. 2019. Country gender assessment of agriculture and the rural sector in Nepal. Kathmandu.

- **Policy and research failures**, which affect the competitiveness of products in regional markets and produce gaps in public extension services.
- **Poor physical access and lack of other supporting physical infrastructure**, which increase transport-related costs and reduce the quality of produce.

3.2. Programme context

Samarth-NMDP ran over a six-year period from April 2012 to March 2018. In applying the M4P approach, the programme aimed to ensure that markets were more inclusive of poor farmers, and thereby sought to increase their incomes, contributing to reduced poverty and rural food insecurity.

The programme aimed to increase productivity of 165,000 male and 165,000 female smallholder farmers and to improve their incomes by an average of £80 per year.

The programme targeted several agriculture sectors and tourism; working with established players in these markets as partners, supporting them to change their business practices to be more inclusive of smaller, poorer stakeholders.

The programme changed its implementation methodology substantially during the course of its lifespan. The first phase of the programme was implemented to gain quick traction but after its failure, the implementation process in the second phase was changed to be more true to M4P theory.

The programme and its interventions were substantially affected by events beyond its control including, the Indian trade embargo and the 2015 earthquake.

4. Key findings

4.1. Did programme interventions meet their objectives to increase smallholder incomes, target women and promote economic resilience?

We found that the programme achieved its targets relating to reach and gender, but had disappointing results in improving farmer incomes. Incomes increased for dairy and vegetable farmers[2] and incomes for ginger and pig farmers decreased. However we found that income increases could only be attributed to the programme in the dairy sector.

The increase in production costs is one of the reasons behind the disappointing impact of the programme on incomes. Smallholder farmers involved in ginger vegetable and pig farming all experienced increased input costs, whereas the dairy farmers' input costs actually decreased, with the dairy intervention focusing mainly on changing farmer behaviour.

The 2015 earthquake and Indian economic blockade also partly explain the income results.

In all of the interventions the agency of women farmers increased. There is evidence of increased joint decision-making in farming activities between men and women, indicating a small shift regarding women's empowerment in the agriculture sector.

[2] In the case of vegetable farmers, incomes of the comparison group farmers who were not part of the intervention increased at a faster rate than the farmers who participated in the intervention.

There is some evidence that farming households participating in programme interventions recovered more quickly from the shock of the earthquake than non-participating households, in particular in the dairy sector, pointing to increased household resilience.

4.2. Did the programme as a whole meet its outcomes to promote changes in behaviour among farmers and small businesses to increase productivity, has it initiated change that might result in systemic change and have these changes been sustained?

Across all of the evaluated sectors the programme has influenced behaviour change amongst the participants, at least during its lifetime. While not all of the beneficiaries altered their farming behaviour to the required standard, all of the evaluated sectors showed partial behaviour change.

The programme changed its means of engagement with stakeholders halfway through its implementation. During the first phase its reach was broader but shallower. In the second phase of the programme the selection of stakeholders and partners was more strategic and engagement tended to be more concentrated.

We found the sustainability of the changes in the first phase, and therefore the resultant systemic change, to be low. In the second phase, while insufficient time has passed to make conclusive statements it appears the sustainability of changes introduced during this phase is higher. The partner organisations engaged during the second phase have continued to adapt models and have plans to expand new services to additional producers, a key indicator of systemic change. However, there is no evidence of crowding-in or copying of this approach on the part of other market actors.

4.3. Did the programme correctly identify the underlying causes of market failure during planning and did it design appropriate interventions to overcome these?

The programme conducted extensive and high-quality research into market constraints and, with only a few exceptions, successfully identified relevant constraints and designed appropriate interventions to deal with them. However, with a few exceptions, the programme did not prioritise or to partner interventions in a complementary fashion, appearing to prefer to implement interventions in isolation from one another. As a result, while traction and growth might have been gained with one intervention, this stagnated on encountering another market constraint further down the value chain.

In a small number of observed cases the programme identified the wrong causes of market failure, or identified the right causes but failed to design appropriate interventions to overcome them.

4.4. Is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context?

The purpose of the M4P approach is to catalyse change within a market system. This change amongst market stakeholders should be sustainable and scalable. We found evidence of sustained change amongst some farmers and private sector players engaged by the programme. This suggests that there are early indications of the successful application of an M4P approach. However, we found very little evidence of scalability. It may be that it is too early for signs of scalability to emerge: it is widely recognised that the approach can take a long time to demonstrate success.

As a result, we would suggest that while the M4P approach is suitable in Nepal, there are several caveats. These include the prevalence of fragmented and thin markets, the role of government agencies as active producers as well as regulators in various economic sectors, weak regulatory

frameworks and a lack of regulatory understanding of private sector motivations. Nepal is also a donor rich environment which poses a further obstacle to achieving scale and sustainability through a market systems approach.

5. Lessons learned and recommendations

The lessons learned and associated recommendations from the evaluation are grouped in this section by theme. We suggest the relevant audience for each recommendation, including donors, M4P programme implementers and the wider M4P community. Some recommendations are relevant to policy and are appropriate to public sector agencies responsible for developing agriculture in Nepal. Given the fluidity of the current public sector structure in Nepal, these specific agencies are not specifically identified. Recommendations are prioritised on a three-point scale, with those marked '1' seen as the most important.

Lesson 1: Key challenges exist in the enabling environment in Nepal

Key constraints exist in the enabling environment in Nepal including a lack of appropriate quality frameworks and enforcement and legacy policies such as price controls, which place a significant constraint on efforts to increase profitability through value addition. This is especially significant in a context in which input costs are increasing, squeezing income for farmers. Programmes need to be acutely aware of limitations of this enabling environment and the likely impact on planned interventions. Experience from Samarth suggests effectiveness can be enhanced by harnessing the active role of the government in regulation, but care should be taken to select the right partners with a sufficient capacity to bring about change.

Recommendation	Audience	Priority
1. Public sector stakeholders should be engaged as soon as possible by M4P programmes and, where necessary, be mentored to act within their mandated areas of responsibility and exposed to capacity-building regarding private sector-led economic growth.	Donors; Programme implementers; public sector	1
2. Programmes should identify suitable entry points in the enabling environment to address key challenges, be realistic about what change can be accomplished in programme timeframes and actively collaborate with existing donor and public-sector initiatives.	Programme implementers; donors	2
3. Programmes should carefully examine the enabling environment of planned interventions and prioritise interventions accordingly.	Programme implementers; wider M4P community	1

Lesson 2: Operating in "thin", donor-rich environments (such as Nepal) is challenging

The private sector in Nepal is "thin" in a number of categories and this makes the identification of strategic partners difficult. Further, the players in this thin market are used to working in a donor rich environment and receiving direct and subsidised support which makes implementation of M4P in Nepal more difficult.

Recommendation	Audience	Priority
4. Donors and implementers should recognise the challenges faced in thin markets and donor rich environments regarding scale and sustainability and set targets and timeframes accordingly.	Donors; implementers; and wider M4P community	2
5. Implementers may need cast a broader net to identify strategic partners in the public and private sectors and be willing to build their understanding and skill over time. Where opportunities are limited, programmes may need to explore opportunities to collaborate with other programmes. At the same time, donors should be prepared to recognise shared contributions to results.	Donors; and implementers	2

Lesson 3: Harnessing demand-side market 'pull' is a key driver of intervention effectiveness

Interventions that harness demand-side pull, and tackle both input and output market-focused constraints simultaneously, are frequently more effective in encouraging sustainable practice changes[3] and offer producers opportunities to increase revenue (and potentially profitability), even in the face of enabling environment constraints.

Recommendation	Audience	Priority
6. Prioritise market systems where there is a clear demand-pull as well as supply-push to overcome a constraint. These appear have a greater chance of sustainability.	Programme designers and implementers; IPs	1

Lesson 4: Smallholder producers are more likely to adopt and sustain practice changes with low barriers to entry and may switch farming activities during programme implementation

Interventions with relatively low barriers to entry are more readily adopted and are more likely to be sustained, whereas those interventions with higher barriers to entry, or where the return on investment may take longer to be realised (such as livestock and seasonal crops) as a result of enabling environment constraints, appear to take longer to embed behaviour changes.

[3] Sections 4.3.2 & 4.3.3

Recommendation	Audience	Priority
7. Programme implementers should design interventions with low barriers to entry, which may increase SHF participation.	Programme implementers; IPs	1

Lesson 5: Fragmented market systems result in additional challenges and require coordinated solutions to address them

Fragmented market systems, where there is no clear flow of input, product or market information, impose additional constraints for producers, including market access constraints for smallholder or informal producers. This reduces intervention effectiveness.[4] This is especially true where disparate interventions do not tackle identified constraints in a coordinated fashion. Programme implementers should not assume that poor producers will be able to access formal markets as a result of making recommended changes to practice[5].

Recommendation	Audience	Priority
8. Programme implementers should view fragmented market systems with caution when designing interventions, recognising that stand alone, isolated interventions are less likely to achieve SHF market integration.	Programme designers	2
9. Programme implementers should design interventions with a holistic view of market systems, and prioritise interventions that forge strategic partnerships between market actors to enhance supply chain coordination.	Programme designers and implementers	1

Lesson 6: The development of a Gender Equity and Social Inclusion Strategy is not sufficient to ensure women's inclusion and empowerment

Reaching marginalised individuals and ensuring that they benefit equitably, can be a challenge. Inclusion, rather than simply reach, of marginalised groups requires a specific strategy but also specific action points and activities.

Recommendation	Audience	Priority
10. Link gender and social inclusion strategies to implementation objectives with practical guidelines.	Programme designers and implementers	2
11. Identify barriers which might affect marginalised peoples' participation, to ensure that implementation is correctly targeting these groups.	Programme designers and implementers	2

[4] Section 4.4.3
[5] Section 5.4.4

Lesson 7: Nepal's geography results in particular implementation challenges

A key feature of M4P programmes are small holder farmers being able to replicate the actions of the neighbours, leading to scale and sustainability change. Poor infrastructure and its geography prevents easy transport and communication between villages impacting on this tendency to copy, with implications for programmes' ability to scale.

Recommendation	Audience	Priority
12. M4P programmes should take cognisance of both informal and formal communication channels utilised by SHF, which may impact on copying and therefore greater reach.	Programme implementers; IPs; wider M4P community	2
13. Interventions that are dependent on copying to achieve scale must take these restrictions into consideration and plan accordingly.	Programme implementers; IPs	3

Lesson 8: Programmes should develop a more detailed theories of change which takes into account contextual and external factors, as well as programme assumptions.

Instead of developing a TOC specific to the Nepali context, Samarth opted to use a generic M4P TOC. While a generic TOC may be used as a foundational starting point, programmes need to be aware of their specific context, and importantly, record this context for ongoing institutional and broader learning.

Recommendation	Audience	Priority
14. Develop a context specific TOC, taking contextual and external factors into account, and regularly use this as a reflective tool.	Donors, Programme designers, wider M4P community	1

Table of contents

List of figures, tables and boxes

List of abbreviations

AAER	Adopt, Adapt, Expand and Respond
ADS	Agricultural Development Strategy
AI	Artificial Insemination
APP	Agriculture Perspective Plan
ARP	Agricultural Response Programme
BACO	Before and After Comparison with Opinion
CPI	Crop Protection Inputs
DCED	Donor Committee for Enterprise Development
DDC	Dairy Development Cooperative
DFID	UK Department for International Development
DIA	Dairy Industry Association
DLS	Department of Livestock Services
EQ	Evaluation Question
FGD	Focus Group Discussion
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GESI	Gender Equity & Social Inclusion
GHT	Great Himalayan Trail(s)
GMP	Good Manufacturing Practice
IP	Implementing Partner
IPM	Integrated Pest Management
IPS	Integrated Pit Storage
KII	Key Informant Interview
M4P	Making Markets Work for the Poor
MDFN	Market Development Forum Nepal
MoAD	Ministry of Agricultural Development
NAIC	Net Attributable Income Change
NARC	Nepal Agricultural Research Council
NDA	Nepal Dairy Association
NDDB	National Dairy Development Board
NGO	Non-Governmental Organisation

NTB	Nepal Tourism Board
NTIS	Nepal Trade Integration Strategy
PEAN	Pig Entrepreneurs Association of Nepal
PPI	Poverty Probability Index
QED	Quasi-Experimental Design
QuIP	Qualitative Impact Assessment Protocol
RAG	Red Amber Green
Samarth-NMDP	Samarth-Nepal Market Development Programme
SDC	Swiss Agency for Development Cooperation
SHF	Smallholder Farmers
SNF	Solid Non-Fat
TOC	Theory of Change
TOR	Terms of Reference
UK	United Kingdom
VfM	Value for Money

Report structure

Following from the executive summary, this Final Evaluation Report is structured as follows:

- Section 1 presents the purpose and scope of the evaluation, an overview of its design and its key questions of enquiry, its intended users and its communication strategy.
- Section 2 presents the context and purpose of the programme and its anticipated outcomes, the programme theory of change and the policy context of five programme sectors that were selected for evaluation.
- Section 3 describes the evaluation methodology and process. A full description is provided in Annex M.
- Section 4 provides the evaluation findings against most of the evaluation questions, structured according to the programme theory of change.
- Section 5 presents a more detailed discussion of whether the M4P approach is suitable in the Nepali context, which was one of the key evaluation questions. This evaluation question is treated separately as the discussion is based on interpretation of the collected data.
- Section 6 presents the evaluation's conclusions, reflecting back to the programme theory of change and anticipated impact pathways.
- Section 7 presents the lessons learned and recommendations.

This report includes 13 annexes, including the evaluation Terms of Reference, the Inception Report, the Household Survey Reports, the Qualitative Impact Protocol Reports, the Sector Reviews, the Value for Money Report, the Use and Influence Plan, the Evaluation Framework and lists of interview respondents and reports/resources not listed elsewhere.

1 Evaluation context and purpose

1.1 Context of the evaluation

This report is the Final Report of the UK Department for International Development (DFID)-funded evaluation of the Samarth Nepal Market Development Programme (Samarth-NMDP) in Nepal. It draws on numerous interim reports submitted to DFID over the course of this two-year evaluation process (which are included as annexes to this report), synthesising the evidence contained in these reports to present the final evaluation findings against the Evaluation Questions (EQs).

DFID called for the independent evaluation in 2016, towards the end of implementation of the programme. At the request of DFID, the start of evaluation was delayed until February 2017 as the programme was coming to an end. Most intervention activities had ceased before the evaluation team began its work, with the programme formally closing in April 2017. The evaluation was not envisaged when the programme was designed and implemented but DFID was of the opinion that, given its unique nature as the first Making Markets Work for the Poor (M4P) programme in Nepal, an evaluation might provide lessons.

The evaluation was not required to assess the extent to which the intervention had been managed and delivered against the Paris Declaration Principles.

1.2 Purpose of this evaluation

Samarth-NMDP was the first programme in Nepal to be designed according to the M4P approach, which aims to reduce poverty by enhancing how the poor interact with markets (Section 3 provides further information on this approach). The evaluation was asked to determine the applicability of this approach to the country context. It was intended that this would assist both DFID and other global M4P stakeholders in future programme design decisions. As such, the main purpose of the evaluation was to enrich the global knowledge base of the effectiveness of market systems programmes, as the overall evidence of M4P is limited and there is a demand to build global evidence. The evaluation has three main objectives:

- assess the outcome and impact level results and inform on the effectiveness of the programme in addressing its stated aims;
- inform DFID globally, the Government of Nepal and other stakeholders on the value of the M4P approach, especially within the Nepali context; and
- understand if the hypotheses and assumptions of the theory of change (TOC) hold true.

This focus on the appropriateness of the M4P approach within the Nepali context is clearly outlined in the Terms of Reference (TOR): 'NMDP's M4P approach is a unique approach… [discouraging] incentives such as subsidy, free service, and immediate benefits… in contrast to the approach of [direct delivery] development programmes.'[6]

These objectives, together with the fact that the programme has closed, clearly indicate that the purpose of the evaluation is learning rather than accountability. This evaluation is theory-led, drawing on a mix of different evaluative methods, taking contribution analysis as its overarching analytical frame. The methodology detailed in Section 3 provides further information on the design of the evaluation.

[6] DFID. (2015). Samarth-NMDP Evaluation – Terms of Reference.

1.3 Users of the evaluation and communicating the findings

The primary stakeholders of the evaluation are DFID Nepal. Secondary stakeholders are the Government of Nepal and other M4P implementers in Nepal, including members of the Market Development Forum Nepal (MDFN). Evaluation findings are also relevant to wider audiences, including DFID Global and the international M4P community. More information on how the evaluation has engaged with these audiences is provided in the Communication Plan and Use and Influence Plan (Annex J).

The evaluation team's strategy to communicate the purpose, design, progress and findings of the evaluation to key stakeholders is contained in the Use and Influence Plan (Annex J).

The main stakeholder for the evaluation was defined as DFID Nepal, with secondary stakeholders defined as the Government of Nepal, Samarth, private sector programme partners and beneficiaries. It is also relevant to the wider M4P community and scholars/academicians.

The evaluation team presented the evaluation purpose, scope and methodology to DFID Nepal and representatives of the Government of Nepal and Samarth for their comment and feedback in June 2017, taking into account their interests in the final evaluation design. The team also presented the evaluation design and purpose to M4P practitioners in Nepal. During implementation, the team provided frequent updates to DFID Nepal and to the programme team.

This finalised report will be made available to DFID Nepal, the Government of Nepal and other stakeholders. To ensure the findings are communicated within Nepal and are used in current and future programming, the evaluation team has agreed with DFID to present the key findings of the evaluation at two events once the report has been finalised:

1. **Presentation to MDFN:** MDFN is a platform for market development practitioners in Nepal to share ideas and experience in market development. It was established with support from Samarth and brings together leading M4P practitioners in Nepal including Helvetas, SwissContact, Practical Action and iDE, as well as representatives of the Government of Nepal. Given that Samarth-NMDP was the first M4P programme in Nepal, the presentation of the evaluation's key findings and recommendations presents a prime opportunity to share learning within the Nepal M4P community to strengthen future programming.
2. **'Lunch and Learn' event with DFID Nepal:** The evaluation team will present key findings and recommendations to DFID Nepal staff. DFID has requested that this event take place in July 2019 to incorporate the findings of a review of DFID's Connect market development component of the Nepal Rural Access Programme, to highlight common lessons learned from both programmes.
3. **Learning Note on the relevance of the M4P approach to Nepal with accompanying recommendations**

To ensure the findings of this evaluation contribute to global learning, the evaluation team will make the evaluation report and an accompanying blog available on the BEAM Exchange and Itad websites. DFID will be responsible for sharing the final evaluation report and its supporting documentation on the UK Aid information portal.

1.4 Evaluation Questions

Table 1 highlights the core questions to be answered by this evaluation. We return to these questions in Section 3 after introducing the Samarth programme and its intervention logic, to explain how the EQs will be used to test the programme's TOC.

Table 1: Evaluation Questions

Evaluation Module	EQ #	Question
A. Assessing the impact of individual interventions	1	How effective were individual interventions in achieving the intended impacts?
	2	To what extent did specific interventions promote climate and economic resilience?
B. Assessing the effectiveness and relevance of the market systems approach (incorporating the integration of Samarth into Nepal policy)	3	Given the country's political economic history, is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context?
	4	Did the programme correctly identify the underlying causes of market failure during planning? How appropriate were the interventions to overcome these causes?
	5	How effective was the programme as a whole in delivering the promised outcomes (including initiating behaviour or actions that might result in systemic change)?
	6	How effective was the programme at targeting women?
C. Assessing the delivery and impact of the programme as a whole	7	To what extent are the outcomes and impacts sustainable?
	8	To what extent do interventions and the programme deliver VfM?
	9	To what extent has the programme been successful in harmonising the M4P approach with other programmes in a coordinated way?

1.5 Changes from the Terms of Reference

In consultation with DFID, the evaluation scope was amended; these changes are outlined below:

- Delays in finalising the evaluation contract and the tight timeframes for delivery of this evaluation prevented us from exploring the possibility of a joint evaluation activity with other development agencies. However, other development agencies were identified as possible key informants for the purposes of this evaluation.
- Given the complexity of the programme and the tight timeframes, it was not possible to conduct a baseline during the inception period. Instead, we completed a detailed review of data availability during inception and designed quantitative data collection across four interventions at times appropriate to agricultural seasonal activities and programme closing activities.
- It emerged in the inception phase that there was no interaction between the programme and Katalyst, which was mentioned in the TOR as a potentially comparable programme. This comparison was not incorporated into the evaluation design.
- During the inception period, the evaluation team also revised the EQs listed in the TOR. This was done in consultation with both the programme staff and DFID (i) to ensure the questions

adequately captured their interests in the evaluation of the programme and reflected reality and context; and (ii) to narrow the focus of the questions and avoid duplication. Since the inception phase, the evaluation team has made two further minor changes to the EQs in consultation with DFID: (i) rewording EQ1 to focus on intervention impacts rather than outcomes, given that DFID's primary interest in this question is in understanding intervention impacts (income change) rather than outcomes, which other EQs cover; and (ii) merging EQs 7 and 5, given their similar focus, while at the same time ensuring the combined EQ focuses on the effectiveness of the programme as a whole in delivering the promised outcomes (changes in business practice, etc.), including behaviours or actions that may result in systemic change. In this way, the original focus of both questions is maintained.

2 Context and purpose of the programme

This section briefly describes the context of programme being evaluated, its anticipated outcomes and the policy context of five sectors in which the programme was involved.

2.1 The programme context

Nepal is a multi-ethnic, multilingual, multi-religious landlocked country, bordered by India and China. It can be divided broadly into three ecological zones: the lowland (Terai), the midland and the mountain zones. A 10-year conflict, which ended in 2006 with the signing of the Comprehensive Peace Agreement, had a severe impact on the economic development of the country. After the signing of this agreement, Nepal transitioned towards a new Constitution in 2015.[7] This new Constitution resulted in a move towards a more federal political structure, which has had implications for the implementation of the programme and its evaluation. These issues are explored in more depth later in this report.

Agriculture remains an important sector of Nepal's economy, employing 75% of the population and contributing to 35% of Nepal's gross domestic product (GDP) in 2013.[8] Despite its economic centrality, agricultural growth in terms of yields, production volumes and labour productivity has been below that of neighbouring countries.[9] A number of key constraints explain the limited performance of the agriculture sector as a whole. These include:

- **Market failure for inputs (production and productivity):** Inputs are critical to the effective functioning of agriculture and foods market systems. The constraints to accessing inputs in Nepal include limited access to improved seeds and fertiliser.
- **Market failure for post-production services:** Limited application of cleaning, sorting, grading, washing and packaging post-harvest limits opportunities for greater distribution of quality produce. This is accentuated by limited access to storage and processing facilities (as well as to storage technology), driving farmers to sell produce immediately and at farmgate, limiting their bargaining power.
- **Policy and research failures:** The enabling environment is characterised by poor policy coordination in agriculture, affecting the competitiveness of products in regional markets. In addition, gaps in research and public extension services for supplying seeds and breeds persist.
- **Poor physical access and lack of other supporting physical infrastructure:** Problems with the infrastructure and road network raise transport-related costs and reduce the quality of produce (e.g. fruits and vegetables, milk) available in markets. In addition, smallholder farmers (SHF) often experience a lack of other supporting physical infrastructure, including electricity supply and irrigation systems.
- **Other contextual constraints:** These include volatile weather patterns affecting agricultural growth rates. Given the limited availability of irrigation facilities, crop cultivation is significantly affected by rainfall patterns.

[7] https://www.worldbank.org
[8] ODI. (2014). Structural transformation in Nepal. London: ODI.
[9] Gauchan, D. (2008). 'Agricultural development in Nepal: Contribution to economic growth, food security and poverty reduction' in *Socio-Economic Development Panorama* 1(3), pp.49–64.

Together, these constraints result in underperforming agricultural market systems. High post-harvest losses and lack of quality management systems result in high rates of product rejection, low bargaining power in the hands of SHF and resultant low prices.

2.2 The programme background

Samarth-NMDP was funded by DFID over a period of six years from April 2012 to March 2018. The programme was the first M4P programme (see Box 1) to be implemented in Nepal and focused on implementing an agriculture and tourism-based market development programme to increase the incomes of SHF through development of local market systems. The objective of the programme was to facilitate private sector involvement to overcome market constraints facing SHF, changing business practice to increase their access to the market, improving their incomes and contributing to poverty reduction and a reduction in rural food insecurity. The programme target was to increase productivity of 330,000 SHF and to improve their incomes by an average of £80 per year. The programme aimed to ensure that half of the beneficiaries were women.

The programme focused on a range of agriculture and livestock sectors (e.g. ginger, dairy, fish, vegetables, pigs) and tourism (which has a significant impact on rural livelihoods) and intervened on numerous cross-sectoral issues, including mechanisation, input markets, value chain augmentation, business enabling environment, crop protection insurance and media.

The programme selected 10 sectors that had both pro-poor relevance and pro-poor growth potential as well as being aligned with the UK's development priorities. The focal sectors included agriculture (ginger, vegetables), livestock (dairy, fish, pigs) and other rural sub-sectors (tourism) or cross-sectoral issues (crop protection, mechanisation, media). The programme implemented interventions with implementing partners (IPs) in 54 out of 75 districts of Nepal, covering areas in the West, East, the Terai and the mid-hills (see Figure 1**).**

Box 1: What are M4P programmes and how do they work?

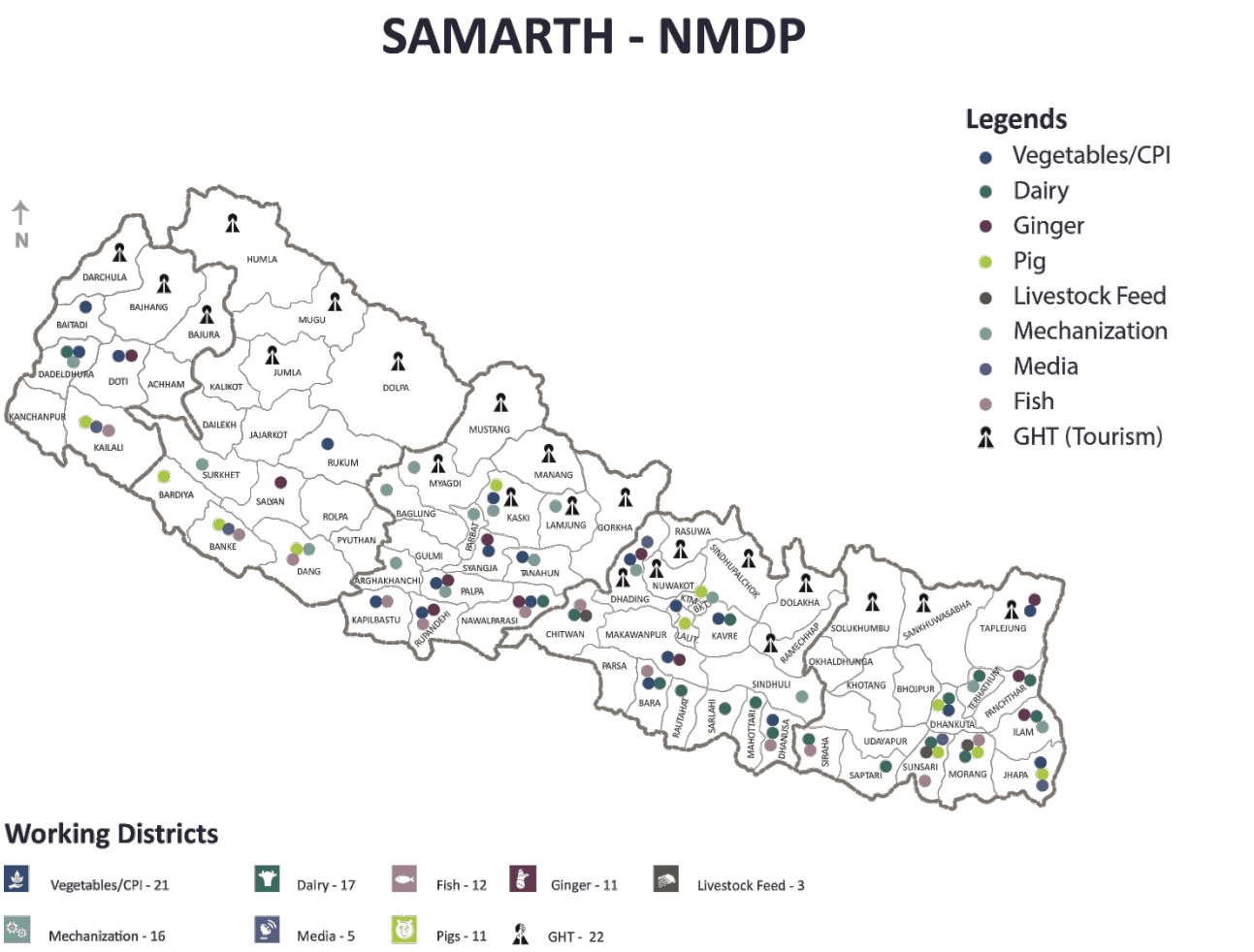
Markets often exclude the poor through the way they work their functions and rules, exacerbating poverty. M4P programmes seek to change the way markets work to benefit poor producers. Fundamentally, this is borne of a wish to make the benefits of development intervention as inclusive and long-lasting as possible.

Programmes that implement M4P are tasked with 'facilitating systemic change'. Instead of delivering poverty reduction solutions directly (direct delivery), an M4P programme will follow specific steps:

1. It will identify barriers or challenges that the poor face working within the market (market constraints). These may include access to appropriately priced goods and services or rules that affect the way the poor can conduct business in the marketplace. The programme prioritises which barriers will be the most effective in promoting improved market access for the poor.
2. It will identify market actors (companies or agencies at various levels of the market system) that can overcome these prioritised barriers.
3. It will work with these actors and develop relationships between them to pilot solutions to overcome these barriers, sharing risks and sometimes providing small amounts of financial support.
4. It will make changes following the results of the pilots.
5. It will roll out the solution over a wider area, scaling up their activities.

Over the last three steps, the role, support and involvement of the programme will decrease, gradually leaving the market actors on their own, working with the poor. As they continue to expand their role and others copy the model, the changes become embedded. This is systemic market change.

Figure 1: Map of Samarth programme locations[10]



Working Districts

Vegetables/CPI - 21 | Dairy - 17 | Fish - 12 | Ginger - 11 | Livestock Feed - 3

Mechanization - 16 | Media - 5 | Pigs - 11 | GHT - 22

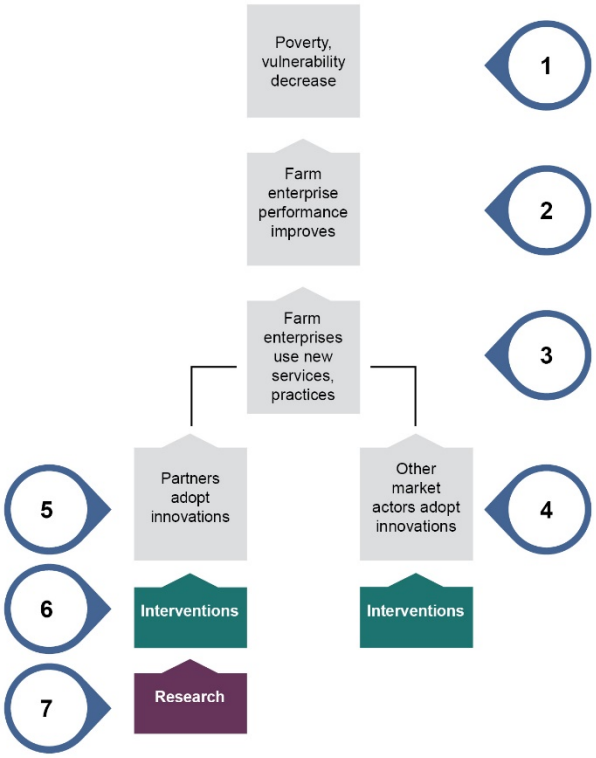
2.3 The programme theory of change

Samarth did not design a bespoke TOC mapping out its anticipated course of action and tracking its assumptions. Instead, it used a generic M4P TOC (Figure 23) to guide its operations. This provides a framework that establishes the causal linkages between programme interventions and impact.

This section explains the causal linkages behind this TOC and acts as a framework against which we present our answers to the EQs later in the report.

[10] Adapted from Samarth. (March 2018). Final Programme Completion Report (2012–2018) – NMDP.

Figure 2: Generic M4P theory of change



1. The programme aims to support an increase in incomes for many in the target group, the intended beneficiaries, contributing to reduced poverty, increased food security and greater resilience. This occurs as a result of…
2. Changes in business behaviour in the core market that increase productivity, yield and sales. This is influenced by…
3. Changes in the core market system. SHF (poor women and men) use improved services and inputs or are affected by better rules (systemic change in the core market). This is because of…
4. Stakeholders (including but not limited to the IPs) in the support market systems adopting and sustaining innovations – first on a limited basis and then on a larger scale so that market systems provide more and better inputs or services, or set better rules, for greater numbers of target group farmers on a sustainable basis. This is systemic change in the support market and occurs because of…
5. Implementation of interventions by support market actors (IPs), facilitated by the programme, usually first on a pilot basis. This is because the programme…
6. Designs interventions that introduce innovations intended to address identified constraints. These interventions are designed in consultation with identified programme partners (IPs) and this has happened because…
7. The programme research has identified the underlying constraints on market participation by SHF. Such constraints usually lie in support markets (those that provide inputs and services and set regulations).

The extent to which this chain of events depicted in the TOC is realised depends on internal and external assumptions. Internal assumptions include factors within the control of the programme such as relevant identification of market constraints, the design of (the correct mix) of appropriate

interventions and the identification of the correct IPs. External assumptions include factors often beyond the control of the programme (e.g. earthquakes, trade boycotts, drought, etc.).

2.4 External influences on the programme

In the Samarth context, four significant factors influenced the programme's implementation and its subsequent ability to contribute significantly to the planned outcomes. Each of these is described below, and the reader is strongly encouraged to take these factors into consideration in reviewing the findings outlined later in this section.

2.4.1 The programme redesign

Samarth was the first M4P programme to be implemented in Nepal, meaning it needed to forge its own, original, path to implement the approach. M4P programmes are known to have significant time lags in achieving large-scale results (the hockey stick effect) and, in an attempt to alleviate this slow start-up, the programme adopted an innovative implementation strategy. The model was to identify and train established IPs (mainly international and local non-governmental organisations (NGOs)) in the M4P methodology to carry out the design and implementation of sector visions and interventions. The Samarth team would provide oversight and strategic guidance regarding M4P.

Two years after initiation, the delivery model was re-examined and it was obvious that, although some changes were being made and some skills being transferred, the overall model was not working for a variety of reasons, including those related to internal communication, VfM and differing ideas regarding development models and incentives.[11]

This examination of the delivery model led to a redesign of the programme's implementation in 2014/15 and, importantly, a dropping of some sector interventions, where traction had already been gained. A common feature of M4P programmes is the time they take to deliver results, and, in the case of Samarth, this initial programme design resulted in time costs and invested resources that might not bear fruit.

2.4.2 The Gorkha earthquake

In April 2015 an earthquake near Kathmandu killed about 9,000 people and destabilised or destroyed over 600,000 buildings and structures. Given its proximity to the country's economic heartland, the impact of the earthquake on programme interventions was severe. While many of the activities and interventions were centred on areas not directly affected by the earthquake, the buyers, processors and other market players linked to the interventions were largely concentrated in Kathmandu. At the request of DFID, some programme resources (both human and financial) were redeployed to a humanitarian crisis response. A one-year no cost extension was granted on the basis of the impact of the earthquake and the economic blockade.[12]

2.4.3 The Indian trade blockade

The trade blockade had a severe impact on the Nepali economy, with fuel shortages forcing the closure of many businesses across sectors. As an example of the impact of this event on the

[11] Samarth. (2014). 'Samarth-NMDP learning from delivery models'. Internal document.
[12] DFID. (31 July 2016). 'Samarth Annual Review'.

programme, the fuel shortages affected the dairy industry severely, for about three months,[13] and the ginger sector in terms of sales to Indian buyers. In addition, there was an extended Indian trade ban on the importation of Nepali ginger, which was lifted in early 2019, almost a year after the programme closed.

2.4.4 The political environment/federalisation

Towards the end of programme implementation, Nepal's political landscape began to change, with a move towards a more federal structure, granting a level of autonomy to regions and provinces. The 2015 Constitution stipulated the creation of seven federal provinces, replacing the previous five development regions.[14]

Following the new Constitution, the country is administratively structured on three levels: the State, the Federation and the Local Level.[15] These three levels follow the three constitutional principles of collaboration, co-existence and cooperation.[16] Within the federal system, local governments can now manage local services, including agricultural extensions, local markets and agriculture and animal husbandry services. However, local governments have to operate under the jurisdiction of the Federal government and the State.[17]

Federalism aims to decentralise political and economic powers, to balance development across the regions and to increase public participation opportunities at all levels of government.[18] Public participation in local politics was also encouraged by new elections in September 2017 when, for the first time in 20 years, constituents could elect their local representatives.

As a result of these changes, a considerable amount of traction that had developed between the programme, its IPs and responsible government departments was lost as government personnel were moved between departments and increased the authority given to more localised structures. While there may still be opportunities for a new M4P programme to influence and work with these new structures, the impact of this on programme sustainability has been substantial.

2.5 Sector policy context

Samarth was the first M4P programme implemented in Nepal. Because of its unique implementation methodology, coordinating its approach with other donor programmes proved difficult. Nevertheless, the programme started its implementation involving other donor programmes as key players but abandoned this approach two years into implementation, as explained above in Section 2.4.1. As a result, coordination between Samarth and other donor programmes does not form part of this evaluation. However, Section 4 explores coordination between the programme and government policy (EQ 9).

The evaluation team selected a sample of five of the sectors in which the programme was involved to review. The policy context of each of these sectors is discussed briefly below, to give texture to the policy context of the evaluation.

[13] Ibid.
[14] Gyawali, Gokarna P. (2018) Federalism: Challenges and Opportunities in Nepal, Molung Educational Frontier
[15] Nepal Law Commission (2018) Structure of State and Distribution of State Power
[16] Paudel, B. and Sapkota, K. P. (2018) Local Levels in Federalism – Constitutional Provisions and the State of Implementation. Swatantra Nagarik Sanjal Nepal.
[17] Paudel, B. and Sapkota, K. P. (2018) Local Levels in Federalism – Constitutional Provisions and the State of Implementation. Swatantra Nagarik Sanjal Nepal.
[18] Bhusal, Thaneswar (2019) Nepal's fight for federalism, Asian and the Pacific Policy Society

2.5.1 Dairy

The dairy industry in Nepal contributes approximately 8% to GDP, with the majority of dairy livestock in Nepal located in the Eastern and Central region in the Terai and hill zones.[19] Milk production in the dairy sector is provided primarily by cows and buffalo, with a combined population of 2.5 million milking cattle. The majority of dairy livestock in Nepal are indigenous or cross-breeds, with low milk yields for both cows and buffalo (1,821 litres/lactation for cows and 1,288 litres/lactation for buffalo), owing to poor nutrition and health. The majority of producers are smallholders with fewer than five animals.

The Government of Nepal is heavily engaged in the dairy sector under the National Dairy Development Board (NDDB) and the Department of Livestock Services (DLS), situated under the Ministry of Agricultural Development (MoAD). The mandate of DLS overlaps with that of NDDB on issues of animal health and livestock development as well as development of fodder and pasture land for livestock grazing. DLS is responsible for public extension services including dissemination of technology and information and training for increasing livestock product production.

The government-owned Dairy Development Cooperative (DDC) and private dairies act as buyers of milk, with private milk processing industries organised under two associations: the Nepal Dairy Association (NDA) and the Dairy Industry Association (DIA) including small, medium and large-scale dairies throughout Nepal. DDC is by far the largest, collecting 60 million litres of milk from more than 75,000 milk producers through 888 milk cooperatives spread out in 33 districts.[20] Cooperatives are key actors in the dairy sector with an established model for milk collection and supply.

While the government is heavily engaged in collecting milk and providing extension services, its resources are limited; it is estimated that in 2013 agricultural extension services reached only 15%[21] of farming households in Nepal. Given this context, the government in its 14th Periodic Plan 2015/16–2018/19[22] identified a number of key challenges to the development of a competitive sector, including lack of technological development, inadequate private sector involvement, problems with retention of technical manpower and a shortage of awareness regarding quality animal products.

2.5.2 Vegetables

The majority of vegetable farmers in Nepal grow for subsistence (82%). Only 18% of vegetable farmers grow for the market, and these are categorised as ‘small commercial’ farmers in the Agricultural Development Strategy (ADS) 2015–2035. There remains potential for further growth – according to the ADS 2015, production capacity is 17 MT/ha/year.[23] Land under cultivation for vegetables is less than 20% of cultivable land, despite the relatively high profits often available from vegetable crops, and despite the potential for import substitution reflecting unmet domestic

[19] LTS International. (2018). ‘Sector analysis studies for the commercial agriculture for smallholders and agribusiness programme’. http://www.bdsknowledge.org/dyn/bds/docs/950/Component%20A%20and%20C%20-%20Annex%20A%20-%201%20%20Nepal%20Sector%20Stud.pdf
[20] DDC. (August 2018). http://www.dairydev.com.np/
[21] IRIN. (2013) ‘Analysis: Why livestock matters in Nepal’. https://reliefweb.int/report/nepal/analysis-why-livestock-matters-nepal
[22] Government of Nepal. (2014). 14th Periodic Plan 2015/16–2018/19. https://www.npc.gov.np/images/category/14th-plan-full-document.pdf
[23] MoAD. (2014). Nepal Agriculture Development Strategy 2015–2035.

demand. From April 2017 to April 2018, about 46% of the vegetable supplied to the Nepalese market was imported from India.[24]

The growth in the sector is driven primarily by increasing consumer demand within Nepal. However, there is also some export potential during the off-season, when the usual vegetable production in the plains of Terai, and on the flat land of Uttar Pradesh and Bihar, is impossible. In this off-season, the mid- and high hills of Nepal have a comparative advantage, corresponding to a time when prices are higher, although in the main vegetable season the sector faces significant competition from imported vegetables from India.

The sector has received considerable support from donors and government in the past, and continues to do so. For instance, the vegetable sector is ranked as third priority in the Government of Nepal's ADS 2015–2035, which cites the sector as the second most important contributor of agricultural GDP (13.2%) and argues that it has high export potential. The government's Seed Vision 2013–2025[25] focuses on increasing crop productivity in the sector, raising income and generating employment through self-sufficiency, import substitution and export promotion of quality seeds. It includes increased focus on the role of the private sector by strengthening of seed networks and seed supply channels through a public–private partnership modality.

2.5.3 Pigs

Historically, Nepal has not had a rich tradition of pork consumption, largely because of cultural preferences, religious taboos and the association of pig-rearing with lower-caste groups. As a result, pig husbandry has traditionally been the concern of certain people groups such as the Rai, Magar and Tamang, who, for example, place religious and social significance on the black pig, as well as selected regions in the Eastern Terai and hill districts. In addition, a number of studies[26] highlight key challenges in developing the pig sector, such as SHF rearing pigs on the scavenging system, which increases the probability of parasitic infection, weak connections between smallholder farmers and pig breeders, affecting the quality of breed, and absent or very poor slaughter and selling infrastructure, which poses health risks to consumers.

The pig sector has also not received significant support from government. For instance, while the 1995–2015 Nepal Agriculture Perspective Plan (APP) identified livestock as an integral part of the agricultural system and a growing sector that could play an important role in reducing poverty and enabling rural women to participate in economic development, it did not identify the pig sector as a priority for support. The Nepal Agricultural Research Council (NARC) has for some time worked to develop improved breeds, such as the PAC Black Pig (Pakhribas), Dharane Black and Nagpuri, etc., along with other imported breeds, but the reach and penetration of such improved breeds has remained limited, with farmers relying on local varieties or cross-breeding pigs with other farmers.

Consequently, with little or no investment to date from public and private institutions, a suitable concept of professional pig farming has yet to emerge.

More recently, the Government of Nepal has begun to place greater emphasis on the sector. For instance, the 14th Periodic Plan 2015/16–2018/19 identifies a number of priorities, including a national programme on increasing the number of quality breed pigs through artificial breeding

[24] Kalimati Fruits and Vegetables Market Development Board, in Samarth. (2016). NMDP Vegetables Sector Strategy.
[25] MoAD. (2012). Seed Vision 2013–2025. http://moad.gov.np/public/files/1013023659-seed%20vision%202013-2035%20policy.pdf
[26] For example, Grist. (2015) (https://tinyurl.com/y48mkgfs); and key informant interviews as part of the ex-post evaluation.

programme; the establishment and operation of a pig business industrial park; and a value chain-based pig business improvement programme.

2.5.4 Ginger

In 2015, Nepal was ranked within the top four producing countries of ginger[27] and the top fifteen world exporters.[28] As of 2011, it was estimated that 66,000 families in five regions of the country were engaged in ginger production, with significant contributions to smallholder incomes.[29] However, the sector has been significantly negatively affected by the Indian economic blockade and ginger ban, the latter of which was lifted only in late 2018, and falling ginger prices,[30] which have begun to see a reversal only this year (2019). Alongside the recent challenges of market access, the sector faces underlying challenges associated with low productivity associated with the use of traditional inputs, including seeds, which result in lower yield (12 MT/ha in comparison with 30 MT/ha when using improved seed varieties). Access to improved seeds and information is a constraint, with only an estimated 15% of households accessing government agricultural extension services.[31]

The sector has received significant support from donors and the Government of Nepal in the past and remains a priority sector. For instance, the ADS 2015–2035 identifies ginger as a priority export product and it is included as a focal sector in the 2016 Nepal Trade Integration Strategy (NTIS).[32]

2.5.5 Tourism

Tourism is a major source of employment in Nepal, generating in income for an estimated 726,000 people[33] – 5.9% of all employment in Nepal. The sector has also grown steadily in Nepal for a considerable period; between 1993 and 2016 international visitors to Nepal increased from 293,567 to 634,753 arrivals.[34]

The tourism sector offers a range of income-earning opportunities for the poor, including tourist purchase of accommodation, food and beverages, transport and trekking tours, and through associated labour markets (e.g. employment in hotels), input markets (e.g. production of vegetables sold to restaurants) and labour markets in tourism input markets (e.g. employment in construction of hotels). Nevertheless, there remain opportunities to increase the benefits accruing from tourism by increasing trekker stay length and trekker spend, as well as diversity in the destination choice of adventure tourists, 90% of whom went to three regions in 2011/12.[35]

While the period up to 2001 and the high of 2009 illustrate the strong standing of trekking-tourism, its overall decline depicts a sector experiencing ongoing trouble in need of policy and planning support to maintain its market potential.

[27] Avramenko, S. (2017) 'Which countries produce the most ginger?' https://www.indexbox.io/blog/which-countries-produce-the-most-ginger/, [20 January 2019].
[28] Workman, D. (2018). 'Top ginger exporters'. http://www.worldstopexports.com/ginger-exporters/
[29] ANSAB. (2011). 'Value chain analysis of the ginger sub-sector in Nepal'. http://www.ansab.org/wp-content/uploads/2011/09/Nepal_NEAT_Subsector-Market-Analysis-Ginger_Aug_2011.pdf
[30] Samarth. (2016). Annual Results Report 2016–2017, p.28
[31] IRIN. (2013). 'Why livestock matters'.
[32] Ministry of Commerce, (2016). Nepal Trade Integration Strategy 2016. http://www.moc.gov.np/downloadfile/NTIS%202016_1492763963.pdf
[33] Samarth Programme Completion Report 2012–2018.
[34] Unless otherwise stated, all visitor data is sourced from MOCTCA. (2016). Nepal Tourism Statistics 2016.
[35] Samarth Programme Completion Report 2012–2018.

2.5.6 Role of women in agriculture in Nepal

The role of women in the agricultural sector is crucial as over 80% of women in Nepal are employed in agriculture, with a high presence (above 90%) of Madhesi Dalit, Tarai Janajati, and Madhesis.[36] Women mainly work as unpaid family labour in agriculture or receive a combination of cash and in-kind payment. Tarai Janajatis have the highest proportion of women (43%) working without formal payments.[37] In the pig sector, women are quite often central to pig-rearing activities in Nepal, with women rearing small livestock either as a form of personal property or a household income source. Women are usually responsible for rearing and feeding pigs, as well as their management. [38]

Despite the high numbers of female farmers, women face a number of constraints regarding their economic empowerment. These are summarised in more detail, below in Table 2. Only about 11% of households have land under female legal ownership, and female-headed households average only 0.50 ha of farmland, compared to 0.78 ha for male-headed households. There are some signs of change as recently government strategy has granted concessions in registration fees when land is recorded in the name of a woman, which has increased the number of these transactions.[39]

Cultural norms, especially in the Tarai, make it difficult for women farmers to seek the help of male extension agents and there are very few female extension agents. Agricultural extension and information on new technologies are almost exclusively directed to men, even though some farming sectors are traditionally women's responsibility, such as the vegetable sector.[40] Women's limited decision-making power, limited mobility and burden of domestic and farm work limit their time availability to go to agricultural centres, markets, etc.[41] Despite these constraints, women have started to access agricultural extension services through the "farmer group" approach (producers' groups), which offers training in, for instance, manure management, compost-making, vegetable production and organic pest control. The "farmer group" approach has provided the opportunity for women to access extension services through these groups, but the government lacks sufficient human resources to deliver services, especially to those in more remote communities.[42]

Table 2: Constraints to women's economic empowerment in Nepal

Dimension	Common gender issues in agriculture
Economic empowerment (income and return on labour)	Women often have different roles in agriculture (e.g., in the cropping cycle or livestock) with different types and level of rewards. Women's roles tend to be more insecure with poorer working conditions. Women's work on household farms is often under-valued and as labourers, women often have lower pay than men for equal

[36] Samarth Gender and Social Includion Strategy (2015); FAO (2019) Country Gender Assessment of Agriculture and the Rural Sector in Nepal http://www.fao.org/3/CA3128EN/ca3128en.pdf
[37] Samarth Gender and Social Includion Strategy (2015)
[38] Niraula, K., Ibrahim, F., Stewart, T. (2015) A Study of the Role of Women in the Pig Sector in Kailalu and Dhankuta Districts, Nepal. Samarth, October 2015
[39] Asian Development Bank, DFID, The World Bank (2012) Sectoral Perspectives on Gender and Social Inclusion – Agriculture, Gender and Social Exclusion Assessment 2011, Sectoral Series: Monograph 1
[40] Asian Development Bank (2010) Overview of Gender Equality and Social Inclusion in Nepal; Asian Development Bank, DFID, The World Bank (2012) Sectoral Perspectives on Gender and Social Inclusion – Agriculture, Gender and Social Exclusion Assessment 2011, Sectoral Series: Monograph 1
[41] Asian Development Bank, DFID, The World Bank (2012) Sectoral Perspectives on Gender and Social Inclusion – Agriculture, Gender and Social Exclusion Assessment 2011, Sectoral Series: Monograph 1
[42] *Ibid.*

Dimension	Common gender issues in agriculture
	work. Women's businesses in agriculture are generally smaller in terms of size, turnover, and number of employees.
Opportunities and life chances	Women often are less able to physically access markets to generate income from their products as a result of restrictions on mobility and perceptions on the part of (male) buyers of the role of women. Women also tend to have more restricted access to other opportunities, such as skills development,
Access to assets and services	Asset ownership is typically male dominated, including land. Men also typically own larger livestock such as goats and cattle than women, who typically own smaller animals such as poultry with less economic value. Women tend to have less contact with extension services and women tend to use lower levels of technology.
Decision-making authority	Women are more likely to grow food crops for mainly household consumption with no financial remuneration unless there is a surplus. Women often contribute labour to cash crops but receive limited or no pay for this work and have reduced control over household finances.

3 Evaluation methodology

3.1 Overview of evaluation design

The evaluation applies a theory-based evaluation design, framed by contribution analysis and drawing on a mix of methods.[43] . Itad (within the e-Pact Consortium) as Evaluation Manager was responsible for all tasks associated with the design and implementation of the evaluation presented in this methodology. The evaluation design draws on Itad's experience in evaluating other M4P programmes and is structured into two principal modules to identify intervention-level impacts for beneficiaries (producers) and changes in the broader market system influenced by the programme:

- **Module A 'intervention impacts':** to identify changes in outcomes (e.g. change in farmers' productivity) and impact (i.e. changes in poverty levels among beneficiaries to the programme interventions) at the household level and attribute these to the programme. It included a series of quantitative surveys and qualitative approaches (including the qualitative impact protocol (QuIP) approach).

  Module A answers the following evaluation questions:

Evaluation Module	EQ	Question
A. Assessing the impact of individual interventions	1	How effective were individual interventions in achieving the intended impacts?
	2	To what extent did specific interventions promote climate and economic resilience?

- **Module B 'market system change':** to identify evidence of change in the market system (at core and support market levels) and to identify the level of contribution of the programme to these changes. It was a primarily qualitative approach based on a series of key informant interviews (KIIs) and focus group discussions (FGDs), covering programme partners and other associated market actors including producers, private companies, government agencies, cooperatives and NGOs.

  Module B]answers the following evaluation questions:

Evaluation Module	EQ	Question
B. Assessing the effectiveness and relevance of the market systems approach (incorporating the integration of Samarth into Nepal policy)	3	Given the country's political economic history, is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context?
	4	Did the programme correctly identify the underlying causes of market failure during planning? How appropriate were the interventions to overcome these causes?
	5	How effective was the programme as a whole in delivering the promised outcomes (including initiating behaviour or actions that might result in systemic change)?
	6	How effective was the programme at targeting women?

[43] DFID (2013). Targeted SME Programmes: Evaluating Market System Projects PowerPoint presentation, and Itad (2013). Review of M4P evaluation methods and approaches.

- **Module C 'programme synthesis'**: to gather data at a programme level and to act as a place of synthesis for data gathered in the complementary modules. Data gathered for this module was also mainly qualitative, based on key informant interviews (KIIs) with government representatives, programme staff and other stakeholders with an aim of assessing the delivery and impact of the programme as a whole.

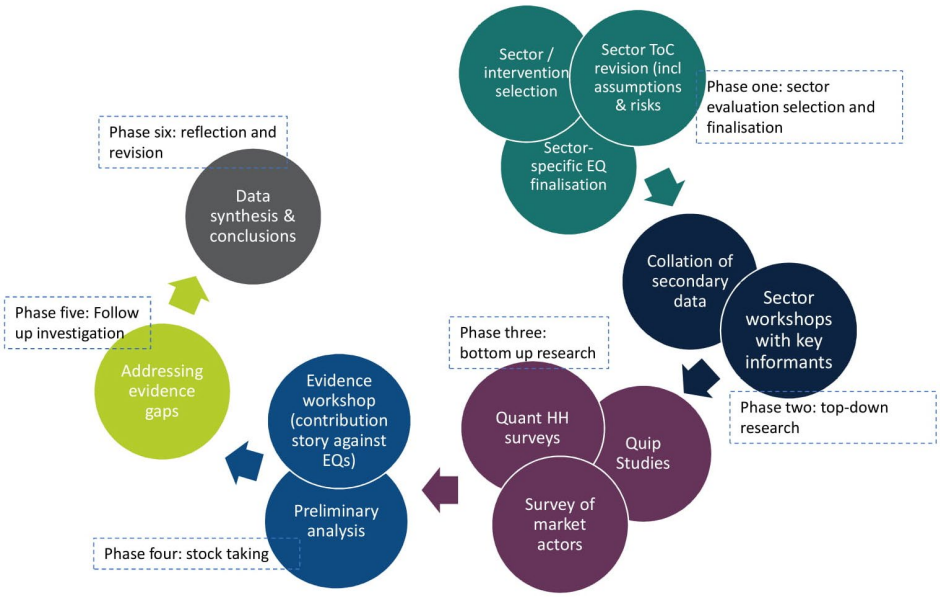
Module C answers the following evaluation questions:

Evaluation Module	EQ #	Question
C. Assessing the delivery and impact of the programme as a whole	7	To what extent are the outcomes and impacts sustainable?
	8	To what extent do interventions and the programme deliver VfM?
	9	To what extent has the programme been successful in harmonising the M4P approach with other programmes in a coordinated way?

Further information on the design of the evaluation and the data collection methods, data sources and analytical methods used can be found in the methodology annex (Annex M) and Evaluation Framework (Annex H).

Contribution analysis provides the overarching analytical framework for the evaluation, based on several iterative phases:

Figure 3: Contribution analysis approach



1. **sector selection,** including final sector and intervention selection and sector-specific EQ finalisation (June 2017)
2. **'top-down' research,** including collation of secondary data and workshops with key sector informants to put Samarth's interventions into context (June-September 2017)
3. **'bottom-up' research:** primary research from Modules A and B. Module A included a quantitative household survey and QuIP studies. Component B included interviews with a

sample of market actors directly supported by Samarth and actors who have introduced innovations independently of the programme (October 2017–October 2018)

4. **stock-taking:** review of intervention contribution story against EQs (October and November 2018)
5. **follow-up investigation:** further investigation into gaps identified during stock-taking (November 2018–February 2019)
6. **reflection and revision:** reassessing and finalising the contribution story given its strengths and weaknesses and drawing conclusions (February–March 2019).

3.2 Challenges and limitations

Producing generalisable conclusions about the programme as a whole: No evaluation can consider every aspect of a programme. In this evaluation, resources did not allow the evaluation team to evaluate all sectors and all interventions within these sectors. Nevertheless, we believe that the approach in which a series of quasi-experimental quantitative surveys to measure household-level impacts is paired with broader qualitative enquiry to consider the broader impact of the programme in generating systemic change provides a sufficiently broad base from which to draw conclusions about whether the programme as a whole was effective in delivering its promised outcomes. Other challenges, limitations and mitigation strategies specific to Modules A and B are discussed in more detail in the methodology (Annex M) and sector-specific annexes (C, D, E and F).

3.3 Ethical considerations and independence

The interaction of the international and local teams with the beneficiary communities and respondents, as well as in KIIs and FGDs with programme partners, was conducted in accordance with DFID Ethics Principles for Research and Evaluation. All information provided respects ethical standards for confidentiality. Further information is provided in the methodology annex (Annex M). The evaluation team was able maintain its independence throughout the evaluation and to work freely, without interference. The evaluation team and DFID took the independence and impartiality of the evaluation seriously at all stages of the evaluation process, including (by DFID) formulation of scope, planning, budgeting and the selection and approval of the evaluation team and (by Itad) managing the evaluation, including drafting TORs for evaluation team members, collecting data, formulating findings and recommendations, and reviewing and finalizing the report. The Samarth programme team did not have any undue influence on the scope or on the design of the evaluation. The evaluation team collected its own primary data and where the programme team provided information and support to data collection, this is acknowledged. Members of the evaluation team were free to express their own views throughout the evaluation process and this report reflects their views; there were no major differences of opinion within the evaluation team.

3.4 Stakeholder engagement

The main stakeholder for the evaluation was defined as DFID Nepal, with secondary stakeholders defined as the Government of Nepal, the Samarth programme, private sector programme partners and beneficiaries. The plan to communicate findings is outlined in the Use and Influence Plan (Annex J).

4 Findings

4.1 Mapping EQs to the programme theory of change

The programme TOC provides the framework that explains how the programme was intending to work; it establishes the causal linkages between programme interventions and impact. Being theory-led, this evaluation explicitly seeks to test this theory to understand if the programme has achieved its intended outcomes and impact and, if it has or has not reached these objectives, why this is the case.

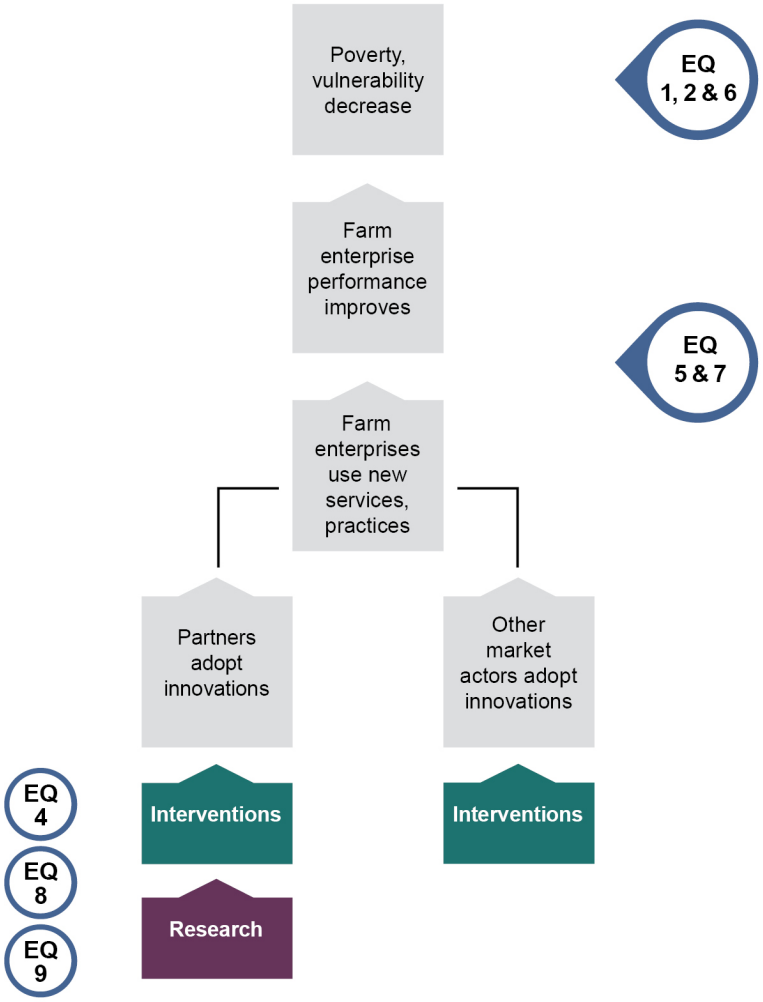
To test the programme theory systematically, we have mapped the EQs to the TOC.[44] In presenting the evidence against the TOC we start at the 'top' of the TOC, the impact level, to understand if individual interventions have produced the intended impact, before following the programme logic down through evidence of change in the core market and change in the support market. We then consider the choice, design and implementation of the interventions. A number of EQs are relevant to the same stage of the TOC; in these cases, the relevant EQs are grouped into EQ clusters to avoid repetition. Three of the EQs (4, 8 and 9) are not clustered but answered as individual, standalone questions. The final evaluation question, EQ3, which deals with the relevance of the M4P approach to the Nepali context, draws on and interprets the findings presented in this Section and is answered in a standalone section (Section 5).

The answers to the EQs focus primarily on the four agricultural sectors, which were evaluated in-depth following the methodology outlined in this report. Evidence from the evaluation of the tourism sector is included separately where appropriate. We do this because the tourism sector did not follow the same implementation approach (it was not M4P by design) as the other sectors and as such does not fit as clearly onto the programme TOC. The approach to evaluating this sector subsequently had to follow a different approach and, with agreement with DFID, was lighter-touch in nature.

After presenting the findings and discussing explanatory factors, we then return to the TOC in Section 6 to draw conclusions as to the extent to which the key assumptions underpinning the pathways to change held true.

[44] Itad. (25 August 2017). Impact Evaluation of the Samarth-Nepal Market Development Programme (Samarth). Inception Report.

Figure 4: EQs matched against the programme Theory of Change



In answering the questions, or clusters of questions, we follow a similar format by presenting key takeaways at the beginning of the section, then presenting a summary of synthesised findings drawing on the evidence contained in the annexes to this report (Household Survey Reports, QuIP Reports and Sector Reviews cross the four evaluated sectors and evidence from the VfM Report and the evaluation of the tourism sector interventions).[45]

For convenience, we have listed the EQs below (Table 7) and provided commentary on our interpretation of the questions reflecting on their placement within the TOC.

[45] Annexes C (Dairy), D (Pigs), E (Ginger) and F (Vegetables)

Table 3: Evaluation Questions and commentary

Cluster	EQ #	Question	Commentary
1	1	How effective were individual interventions in achieving the intended impacts?	This question is interpreted to focus on the impact of the interventions on increasing SHF income. It also considers the degree to which interventions were inclusive of women and whether women and other vulnerable groups shared in impacts.
	6	How effective was the programme at targeting women?	
	2	To what extent did specific interventions promote climate and economic resilience?	This question is interpreted to focus on the extent to which interventions increased resilience on the part of SHF and their ability to recover from a series of recent economic and environmental shocks in Nepal. The evaluation did not consider in detail whether climate resilience had increased.
2	5	How effective was the programme as a whole in delivering the promised outcomes (including initiating behaviour or actions that might result in systemic change)?	Following M4P implementation logic, this question is interpreted to focus on the degree to which the programme has delivered the intended outcomes in terms of practised change and improved performance in the core market among producers and in the support market among the suppliers of new goods and services, as well as any emergent evidence that this has led to or is likely to lead to broader systemic change.
	7	To what extent are the outcomes and impacts sustainable?	This question is interpreted to focus on the degree to which the outcomes and impacts of the programme are sustainable.
	4	Did the project correctly identify the underlying causes of market failure during planning? How appropriate were the interventions to overcome these causes?	This question is interpreted to focus on the extent to which the programme identified relevant market constraints and then designed and implemented appropriate interventions to overcome them, including identifying the most appropriate IPs.
	3	Given the country's political economic history, is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context?	This question is interpreted to focus on the suitability of the M4P approach in Nepal. We examine this in light of the preceding evidence on whether, and how, the programme was able to produce change according to M4P implementation theory. We then consider how the approach could be adapted to better fit the Nepal context.
	8	To what extent do interventions and the programme deliver VfM?	This question is interpreted to focus on the extent to which the programme's interventions have delivered results that represent VfM.
	9	To what extent has the programme been successful in harmonising the M4P approach with other programmes in a coordinated way?	This question is interpreted to focus on the extent to which the programme harmonised its approach with other programmes in a coordinated way. With agreement from DFID, we did not examine this question in great depth, given the programme redesign, mentioned in Section 2.3.

4.2 Did the programme increase incomes at the household level? (EQ Cluster 1)

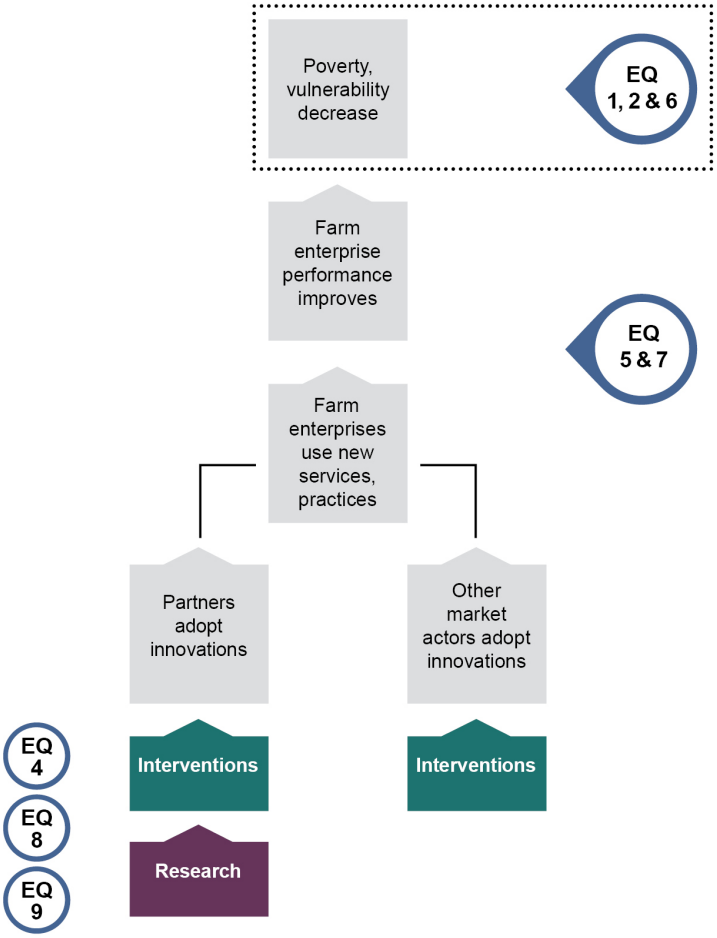
This section examines the impact level of the TOC (see Figure 56) and presents evidence against three of the EQs. It addresses the impact of the Samarth programme in meeting the objective of incomes for SHF producers and their households. It examines the programme's targeting of SHF, women and vulnerable groups, before examining changes to their household incomes and the

possible increased resilience (and a following contribution to reduction of poverty) of these households as a result of these changed incomes.

In Table 8 below we present the key findings of this cluster, matched against the relevant EQs and the strength of evidence for each of these findings. The strength of evidence is given a rating.[46] Section 5 discusses these findings in more detail. The EQs in this cluster are:

- EQ1 How effective were individual interventions in achieving the intended impact?
- EQ6 How effective was the programme at targeting women?
- EQ2 To what extent did specific interventions promote climate and economic resilience?

Figure 5: EQ Cluster 1



[46] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

Table 4: Key findings – EQ Cluster 1

EQ	1
How effective were individual interventions in achieving the intended impacts?	
Key findings	**RAG**[47]
There was an increasing in income attributable to the programme in only one of the evaluated interventions (in the dairy sector). Incomes for intervention farmers also increased in the vegetable sector but not as quickly as in the comparison group, indicating that incomes are increasing in the sector in general and the increase may not be attributable to the programme. Incomes of pig and ginger farmers decreased, possibly as a result of challenges external to the programme.	
EQ	**6**
How effective was the programme at targeting women?	
Key findings	**RAG**
The evaluated interventions were successful in targeting women and somewhat with socially vulnerable groups.	
In the two sectors reporting an increase in income, women farmers earned more than the treatment average in dairy and less than the treatment average in vegetables.	
Women reported increased voice and agency in their household decision-making. There is evidence of increased joint decision-making in farming activities between men and women representing a small shift regarding women's empowerment in the agriculture sector.	
EQ	**2**
To what extent did specific interventions promote climate and economic resilience?	
Key findings	**RAG**
Dairy farmers have recovered more quickly than comparison farmers from recent external shocks. While increased dairy incomes may have contributed to this increased resilience, there are several other possible contributors including increased remittances from abroad. It is therefore not clear to what extent the programme contributed to increased economic resilience.	
The programme was not designed to tackle the issue of climate resilience. The evaluation team was unable to determine whether this had occurred as an unintended consequence of the programme given the resources available.	N/A

[47] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

4.2.1 Targeting the correct beneficiaries

The programme correctly identified and worked with poor households and beneficiaries and identified and worked with women within these households.

Targeting poor farmers

The Samarth programme aimed to increase the household incomes of poor farmers. To estimate the extent to which it targeted poor farmers, the programme used the PPI[48] as a proxy measure of poverty.[49] The treatment households were assessed as having a certain likelihood of living below the $2/day poverty line (see Table 9). It is apparent from these figures that ginger farmers then vegetable farmers were likely to be the poorest; pig and dairy farmers were reported to be less poor. This is to be expected, given the value of the livestock involved.

Table 5: PPI likelihood of intervention households living below the $2 poverty line per sector at baseline

Sector	PPI likelihood % at Samarth baseline
Dairy	30.3%
Ginger	78.3%
Pigs	31.2%
Vegetable	52.6%

Targeting women and vulnerable groups

Samarth's Gender Equity and Social Inclusion (GESI) Strategy explicitly specifies women and more vulnerable groups as target beneficiaries for the interventions: 'certain groups face higher barriers to accessing and benefitting from markets, and [that] markets cannot effectively drive poverty reduction when these groups lack productive assets, or perceive that the risks and costs of participating in markets are too high'.[50] The programme was required to ensure that 50% of its beneficiaries were women.[51]

In each of the evaluated sectors, the programme exceeded this target, with the exception of dairy, where 46% of the beneficiaries were female. In the pig sector, the 50% target was greatly exceeded, with the evaluation finding that '[Women] play a central role in pig-farming activities as they rear small livestock either as a form of personal property (pewa) or as a household income source.'[52] Women often have the responsibility in Nepal of rearing small livestock as a source of household income.[53]

Table 6: Evaluated sectors reach (sex-disaggregated)[54]

	Dairy	Ginger (ex-post)	Pigs (ex-post)	Vegetables (ex-post)

[48] https://www.povertyindex.org/
[49] Care needs to be taken with the PPI interpretation for Nepal as the scale was constructed based on the 2010 data when mobile phone ownership was assigned a very high weighting within the PPI calculation. The context of mobile phone ownership in Nepal has changed dramatically in the past decade. (Approximately 90% of households surveyed in our quantitative work reported ownership of one or more mobile phones.)
[50] Samarth. (March 2016). Gender and Social Inclusion Strategy, Version 2.
[51] Samarth logframe, Impact Indicator 3 'Proportion of farmers and small-scale entrepreneurs who experience positive changes in annual real incomes who are women'.
[52] Annex C.1
[53] Niraula, K., Ibrahim, F., Stewart, T. (2015) A Study of the Role of Women in the Pig Sector in Kailalu and Dhankuta Districts, Nepal. Samarth, October 2015
[54] Annexes C.1, D.1, E.1 and F.1

Male	51.9%	43.6%	35.2%	49.7%
Female	48.1%	56.4%	64.8%	50.3%

The Samarth GESI Strategy defines disadvantaged groups using two major dimensions of exclusion: economic and social. The '*economic excluded*' groups included the poor of all castes, ethnicities, locations and gender, whereas the '*socially excluded*' groups comprised women, Dalits, Adibasi/Janjatis, Madhesis, Muslims and people of geographically remote areas.

In considering the extent to which Samarth targeted members of different caste or ethnicity groups that are more likely to be excluded from market opportunities, the evaluation found that the pig intervention targeted the largest percentage of disadvantaged groups: 90.4% of beneficiary farmers were Janjatis, reflecting the reality that pig farming is traditionally a lower-caste farming activity.[55] The ginger and vegetable interventions also targeted a significant number of disadvantaged farmers: 55% of vegetable farmers belonged to the Dalit, Janjati and Madhesi castes and 51.3% of ginger farmers were Dalits, Janjati and Madhesi.[56] The dairy intervention targeted the lowest number of socially excluded farmers.

Table 7: Evaluated sectors reach (caste disaggregated)[57]

	Dairy	Ginger (ex-post)	Pigs (ex-post)	Vegetable (ex-post)
Brahmin/Chhetri	62.5%	48.7%	0.4%	44.6%
Dalit	1.7%	4.3%	8.0%	7.4%
Janjati	19.6%	47.0%	90.4%	27.7%
Madhesi	16.3%	n/a[58]	1.2%	19.9%

In designing and implementing these interventions, we can conclude that the programme correctly identified and worked with poor households and beneficiaries, and for the most part identified and worked with women beneficiaries within these households. Three of the evaluated interventions correctly identified and worked with socially excluded households.

[55] Annex D.1
[56] Annexes E.1 and F.1
[57] Annexes C.1, D.1, E.1 and F.1
[58] The Samarth-NMDP baseline survey instrument excluded the Madhesi caste, hence, for consistency and comparison purposes, this group was not included in the ex-post survey.

Box 2: Representation of disability

In December 2018, DFID asked the evaluation team to incorporate into the household survey instrument some questions on disability. It is important to note that the programme did not specifically target people with disabilities but the data collected may help DFID inform future programming. The table below presents the percentages of treatment households that report at least one member with a disability. Overall, treatment and control households reporting members with disabilities contained at least 1.0 and 1.3 members with a disability.

Households (treatment groups) reporting at least one disability, by sector

	Dairy	Ginger (ex-post)	Pigs (ex-post)	Vegetable (ex-post)
Difficulty seeing	31.2%	17.9%	27.2%	6.5%
Difficulty hearing	9.5%	9.4%	21.3%	6.1%
Difficulty climbing steps	22.1%	18%	26.4%	7.4%
Difficulty remembering or concentrating	3.9%	2.6%	3.1%	5.0%
Difficulty washing all over or dressing	3.0%	0.9%	2.0%	3.0%
Difficulty communicating or being understood	1.3%	0.9%	2.4%	3.0%

Source: Annexes C.1, D.1, E.1 and F.1.

The data related to disability fell outside the scope of the design and implementation of the programme, and its evaluation and was gathered in response to a direct request from DFID. The evaluation used a modified the Shortened Washington Set of questions to gather basic information on household members' disabilities: http://www.washingtongroup-disability.com/washington-group-question-sets/short-set-of-disability-questions/

4.2.2 Changes in income

Income attributable to the programme increased in only one sector, dairy.

The TOC posits that project interventions will contribute to higher SHF incomes as a result of changed business practices and behaviour, which will in turn contribute to other positive changes in households, such as increased economic resilience and decreased poverty. There may also be unforeseen or indirect consequences of the interventions, including some that may have been envisaged but not actively facilitated.

The programme reported that incomes of households participating in the programme increased by £105 per annum, exceeding the NAIC target of £80.[59] However, this reporting draws on data collected and analysed within the timeframe of the programme, whereas our data, much of it gathered after the close of the programme, shows a different picture, trying to attributable income

[59] Samarth. (2018). Project Completion Report.

increases and decreases to the programme. [60] These attributable changes in income are reflected in the NAIC column in Table 13.[61]

In two cases (ginger and pigs) the programme participants experienced a decrease in income from the target economic activity over the period and in one of these cases (ginger) lost income relative to non-intervention farmers. In the other (pigs), it is not possible to say whether intervention farmers lost income relative to non-intervention farmers because it was not possible to identify a control group. In two cases (dairy and vegetables), programme participants experienced an increase in income from the target economic activity over the period but in one of these cases (vegetables), this income increase was not as rapid as that experienced by non-participants. In only one case (dairy) did programme participants increase their income during the period and above that of non-participants.

The increase in NAIC in the dairy sector is in spite of a loss of cattle and buffaloes as a result of the earthquake, where approximately 15,000 cattle died and DDC and Nepal Dairy began to return the milk to cooperatives that they were unable to sell.[62] Further, during the trade blockade, as a result of fuel scarcity, long power cuts affected dairy operations and dairy companies were unable to collect milk from cooperatives for three months. This meant the cooperatives and chilling centres decreased their collection from SHF.[63]

Table 8: Treatment group change in income (NPR) and change in NAIC – all farmers[64]

Sector	Change in income (NPR)	% change in income	NAIC
Dairy	2,132	3.2%	65,809.0
Ginger[65]	- 21,885.7	-62.7%	-9,911.5
Pigs	-1,824.3	-84.6%	n/a[66]
Vegetables	7,788	42.9%	-7,927.0

Table 9: Treatment group change in income (NPR) and change in NAIC – female farmers[67]

Sector	Change in income (NPR)	% change in income	NAIC
Dairy	4,692.0	7.0%	49,958.0
Ginger	-22,700.0	-71.0%	-7,484.0
Pigs	-11,965.7	-516.6%	n/a[68]
Vegetables	-2,048.0	-7.8%	-16,065.0

[60] In keeping the Donor Committee for Enterprise Development (DCED) income calculations guidelines, to calculate attributable income change we included the incomes of all farmers who had participated in the interventions and compared these with a comparison group. This shows that net attributable income in each sector, except dairy, decreased, meaning that comparison group vegetable and ginger farmers generated greater incomes from their farming activities than the intervention group farmers. In dairy, the results were reversed, with the intervention group farmers making substantially more than their comparison group counterparts. The evaluation team was also able to expand the number of control groups to get a clearer understanding of net attributable income change DCED. (2017). 'Guidelines to the DCED Standard for Results Measurement: Defining indicators of change and other information needs'. https://www.enterprise-development.org/wp-content/uploads/2_Implementation_Guidelines_Defining_Indicators.pdf
[61] Annexes C.1, D.1, E.1 and F.1
[62] Interview with Timal cooperative, 8 October 2018.
[63] Samarth. (2016). Samarth-NMDP Annual Results Report 2015–2016, p.22.
[64] Annexes C.1, D.1, E.1 and F.1
[65] For the ginger intervention, the results should be interpreted carefully as the evaluation sample size includes only 22 ginger farmers using Trichoderma. Samarth calculated an average NAIC increase of NPR 8840.00 for each ginger farmer, (Samarth. (2015). Impact Assessment Report, Disease Management Intervention, Ginger Sector), but this data was gathered before the Indian trade blockade and ginger import ban.
[66] The NAIC is not available for the pig intervention, as the evaluation team could not identify a control group.
[67] Annexes C.1, D.1, E.1 and F.1
[68] The NAIC is not available for the pigs intervention as the evaluation team could not identify a control group.

NAIC changes for female farmers were only slightly different (Table 14). Female dairy farmers reported a greater increase in income than the group average, and a slightly lower attributable income than the overall dairy average. This indicates that comparison women dairy farmers made more money than their male counterparts. Respondents in the other three sectors reported both a loss of income as well as net attributable losses in incomes.

There are other notable differences in income change by respondent type within sectors. In the dairy farming intervention, for instance, data reveals that households with five or fewer cattle reported significantly increased costs, resulting in a marginal decrease in dairy-related income (0.4%), while those households with more than five cattle reported a 9% increase in dairy-related income.[69] The increased costs of implementing GMP over a greater number of cows provide an element of scale to some SHF, proportionally rewarding those farmers with slightly larger herds. Reasons for this nuance include the price of milk being dictated by the regulatory DDC, as the buyer of last resort. While private sector buyers may offer slightly higher prices for better quality milk, the general incentives to do so, in the absence of sector-wide quality standards, are negligible. These combined factors affect the opportunity for the dairy SHF to increase their household income.[70]

In ginger, those households that sold in both seasons experienced a 44% decrease in income compared with those that sold in only early season, recording a 102% income decrease.[71]

In the pig sector, there are also significant variations, with pig farmers in the Western Cluster enjoying a 31% income increase while their counterparts in the Eastern Cluster experienced a 20% decrease in income, possibly reinforcing the poverty of the farmers in the Eastern Cluster.[72]

Possible reasons for the declining income in ginger and pig farmers and the relative decline in income for vegetable farmers include increased input costs and external events beyond the control of the programme, including the 2015 earthquake and the Indian trade embargo and ginger ban.

4.2.3 Changes in household decision-making

Increased instances of joint decision making were reported in all of the evaluated sectors.

While impact is easily quantified in terms of income changes, '… [improved] incomes do not automatically lead to economic agency. And they may even sometimes be disempowering. Issues such as women's time and work burden, control of income and decision-making authority are measures of empowerment that may worsen as women engage in more remunerative, market-based work'.[73] Gender was at the core of the implementation design of Samarth-NMDP. According to the programme's 2013 GESI Strategy,[74] there is an important trend towards facilitating greater women's participation in agricultural management (triggered by male out-migration), resulting in already higher participation of women in accessing – but not necessarily equitably benefiting from – services. It is important then for the evaluation to determine the extent to which women have been empowered with any increase in household income, whether or not they were the primary income earner.

[69] Annex C.1
[70] For more detailed discussion of the impact of a lack of quality standards see Section 5.
[71] Annex E.1
[72] Annex D.1
[73] GESI Strategy, Version 2.
[74] Samarth. (2013). Samarth-NMDP Gender and Social Inclusion Strategy.

Designing interventions with this in mind can be challenging, and the results do not always reflect the effort. The evaluation found that, although the GESI Strategy provided guidelines for gender inclusion, its objectives were not carried forward in the implementation design. While Samarth achieved a high level of women representation in the number of their reported beneficiaries,[75] these individuals did not fare as well in improving their agriculture-related incomes. In terms of NAIC (Table 13 and 14 above), women farmers fared worse in each of evaluated sectors than their male counterparts.

Beyond income figures, the evaluation team attempted to determine the extent to which women increased their voice and agency in agricultural activities by asking how much they were involved in or led the decision-making process in a range of activities associated with the income-producing activity in each of the evaluated sectors.[76]

In the case of the treatment group, in dairy farming (traditionally a male domain, with 52% of the treatment group and 56% of the comparison group farmers male),[77] there has been a decrease in sole decision-making by both men and women in all the reported activities and an increase in joint decision-making, indicating that women are more involved in this activity. In contrast, the control group has seen an increase in individual and individual-led decision-making by both men and women in almost each area related to dairy farming.[78] Similarly, significant percentages (between 35% and 50%) of vegetable, ginger and pig farmers reported making joint decisions in all activities,[79] although women pig farmers in the Eastern Cluster appear to be more dominant in their decision-making than their Western Cluster counterparts, reflecting the fact that this is a women-dominated sector. In vegetable farming, the treatment group consistently reported lower percentages of women-only decision-making. Although the same respondents reported large percentages (between 40% and 60%) of joint decision-making, this may be indicative of male presence in decision-making in ventures that are more profitable.[80] This may also provide an explanation for the NAIC decrease for women vegetable farmers reflected in Table 14.

4.2.4 Changes in household resilience

While it cannot be fully attributed to the programme, more treatment dairy farmers reported faster recovery from external shocks than their comparison counterparts.

While the programme aimed at changing household levels of income, it also aimed to contribute to a decrease in household poverty. One way of determining the contribution of the programme towards this overarching goal is to assess changes in household resilience among programme beneficiaries, including their ability to recover from shock, and to determine how they utilise their (possible) increased incomes.

Recovery from shock

During the programme period, Nepal was affected by two events beyond the control of the programme – the 2015 earthquake and the 2015/16 trade blockade with India. The ability of the programme households to recover from these events speaks to their level of household resilience.

[75] 53% as reported in Samarth Project Completion Report 2018.
[76] Annexes C.1, D.1, E.1 and F.1
[77] Annex C.1
[78] Annex C.1
[79] Annexes D.1, E.1 and F.1
[80] Annex F.1

The evaluation team sought to determine the extent of the impact of these two events on the surveyed households across all the sectors and asked respondents to list the most significant shock experienced by their households from 2015 to 2018 (see Table 15). Responses included floods, the earthquake and death of family members. The earthquake was listed as either the first or the second most significant shock among all intervention households. In contrast, the economic blockade was regarded as the most significant for ginger farmers, while only 1% of vegetable farmers and no dairy farmers regarded this as a significant event.[81]

Table 10: Households reporting most significant shock 2015–2018[82]

	Dairy	Ginger	Pigs	Vegetables
Earthquake	25.5%	41.7%	44.1%	23.8%
Trade blockade	0.0%	26.7%	10.5%	1.3%

It is well known that fuel shortages as a result of the trade blockage affected milk chilling and processing, forcing the return of milk to farmers.[83] However, the farmers may have been unaware of the reasons the milk was returned to them. As a coping mechanism, it is reported that they sold the milk locally and increased their household consumption.[84] This may go some way to explaining this apparent 'non-impact' of the blockade on the dairy households.

We asked all of the household respondents about the extent to which they had recovered from the shock they had identified as their most significant shock. While it is not possible to attribute full recovery from the shock to the programme intervention, it is noteworthy that double the number of the treatment dairy farmers (51%) reported that they were fully recovered from the shock, as opposed to the comparison group (see Table 16). This indicates that, in this intervention, the only one of the four with a positive net attributable income change, households appeared to have decreased their time to recover from shock in comparison with their non-intervention compatriots, indicating an increase in their resilience. This resilience increase may be partly attributable to the programme interventions, and it is significant to note that this intervention is the only one that showed increase in net attributable income.

In the other interventions, the treatment group of vegetable farmers reported a lower recovery rate from their most significant shock, while the treatment group for ginger farmers reported only a small positive difference regarding their recovery in comparison to their counterparts.[85]

Table 11: Extent of recovery from the most significant household shock[86]

Fully recovered from most significant shock	Dairy		Ginger		Pigs[87]	Vegetables	
	Treatment	Control	Treatment	Control	Treatment	Treatment	Control
	50.9%	24.9%	76.7%	70.9%	70.4%	60.1%	71.7%

The methods listed to recover from the shock varied and included taking loans, selling household assets and relying on relatives, especially on those who could send remittances from abroad.[88] However, the most common strategy among all treatment and comparison groups was to rely on household savings (see Table 17). The one exception to this was the Eastern Cluster of households involved in the pig intervention, where only a fifth of these household relied on this

[81] Annexes C.1, D.1, E.1 and F.1
[82] Annexes C.1, E.1 and F.1
[83] Samarth-NMDP Annual Results Report 2015–2016, p. 22.
[84] Samarth. (nd). 'Reacting to the earthquake – livestock summary'. Internal document.
[85] Annexes E.1 and F.1
[86] Annexes C.1, D.1, E.1 and F.1
[87] No counterfactual population was identified for this intervention. For more information see Annex D.1.
[88] Annexes C.1, D.1, E.1 and F.1

strategy. In this latter group, the most common strategy, employed by 37% of the households, was to obtain a loan.[89] This echoes the poverty of the households in this cluster, where households were a third more likely to live below the poverty line than their Western Cluster counterparts.[90]

Table 12: Households using savings as their primary shock recovery mechanism[91]

Dairy		Ginger		Pigs		Vegetables	
Treatment	Control	Treatment	Control	Eastern Cluster	Western Cluster	Treatment	Control
73.2%	72.9%	81.7%	84.3%	21.1%	88.0%	91.3%	77.4%

Use of increased income

Dairy farmers reported that increased income (some of it from dairy farming) allowed them to save and to buy additional unspecified household assets and to invest in the education and health of their household members.[92] The overall increase in household income among the vegetable treatment group has led to changes in the way these households spend, save and invest in property or equipment.[93] Over half these respondents reported being able to spend more than before on day-to-day needs, and close to half had made large outlays on building a house, or buying a tractor or motorbike.

Dairy intervention farmers reported positive impacts on their lives and their dairy production processes, but also reported that, with these changed practices, they were spending increased time and effort in milk production. Almost 60% of the dairy qualitative respondents spoke positively of the impact of the training, attributing positive changes in their milk production to the training.[94]

> *'The changes that seem to be in practice at my home were due to a training... These things helped us to bring change in the way of keeping cow and buffalo for milk'* (female dairy farmer, Kavre).

Pig and ginger farmers reported similar uses for increased household income, but the source of income from household in these sectors was not agricultural activities but migrant remittances, unattributable to the programme[95] (see Section 5.2 for more discussion on this point).

> *'I have some savings from remittances. We spend most of our income on education, food [and] health check-up'* (female ginger farmer, Makwanpur).

4.2.5 Concluding comments

The programme aimed to improve the position of its beneficiaries through improving their access to market- and production-related information, products and services, which in turn would improve SHF productivity and yield, leading to increased incomes contributing to increased household resilience and decreased poverty.

The programme was successful in reaching poor farmers, women, and disadvantaged groups. Two of the evaluated sectors (dairy and vegetables) can speak robustly of increasing SHF household incomes, but, when increased costs are taken into account (and matched against comparison

[89] Annex D.1
[90] Annex D.1
[91] Annexes C.1, D.1, E.1 and F.1
[92] Annex C.3
[93] Annex F.3
[94] Annex C.3
[95] Annexes D.3 and E.3

group farmers, who may not have experienced these increased costs), the income change attributable to the programme in the vegetable farmers turns negative.[96] The dairy intervention resulted in slightly increased incomes for those households that looked to the agricultural activity as a more commercial venture (those with more than five cows), showing the importance of moving ventures to scale.[97] Households involved in ginger and pig farming have met less success. In the case of the former, the 2016 trade blockade and ginger import ban from India had significant ramifications.[98] In the case of the latter, it appears that demand has not reached a critical point for this commodity and, as a result, high input processes and low returns on investment have deterred SHF from expanding this activity.[99]

Income has increased as a result of the programme in only one evaluated intervention. In the other three evaluated interventions, income attributable to the programme is less in the participating households than in the comparison group neighbours. A possible reason for this is the increased costs resulting from the intervention and events external to the programme.

Although the programme exceeded its targets ensuring that 50% of its beneficiaries were women, income change for women farmers has not increased as rapidly as for men farmers, due to a variety of contextual reasons. These include barriers to women's land ownership and management, cultural and gender norms, and women's unpaid agricultural labour. However, there is some evidence that women are more involved in decision-making processes across all sectors, mostly due to male out-migration and national government strategies that aim to include more women in farming activities (see context section). It is not clear if these changes are also attributable to the programme interventions.

Treatment households in three of the four interventions reported faster recovery times from the most significant shock experience by their household in the two years prior to being asked. In the majority of cases, this shock was the Gorkha earthquake.[100] They generally reported using their household savings to recover from the shock, and income from their farming activity would have contributed partially to these savings.

The evaluation team explored the issue of resilience but this was difficult given that the programme didn't explicitly focus on this issue. While not always directly attributable to the programme interventions, treatment households across the four evaluated sectors speak to diversifying income streams and investment in education, healthcare and assets, contributing to household resilience.[101]. Nevertheless, treatment farmers report making education, healthcare and assets which can be taken for proxies for increased resilience. In the dairy sector this is partly driven by increased income attributable to programme interventions. In the other sectors where income fell, it is driven by diversifying income sources, which speaks to ongoing patterns of change in agriculture in Nepal where off-farm income and income from remittances continue to grow in importance, especially in the wake of the 2015 Earthquake.

[96] Annexes C.1 and F.1
[97] Annex C.1
[98] Annex E.1
[99] Annex D.1
[100] Annexes C.1, D.1, E.1 and F.1
[101] Annexes C.3, D.3, E.3 and F.3

4.3 Did the programme generate systemic change? (EQ Cluster 2)

This section examines the support and core market level of the TOC (see Figure 67) and presents evidence against two of the EQs. In Table 18 below we present the key findings of this cluster, matched against the relevant EQs and the strength of evidence for each of these findings. The strength of evidence is given a rating.[102] The EQs discussed in this cluster are:

- EQ5 How effective was the programme as a whole in delivering the promised outcomes (including initiating behaviour or actions that might result in systemic change)?
- EQ7 To what extent are the outcomes and impacts sustainable?

This section addresses the effectiveness of the Samarth programme in meeting the objective of M4P programmes to:

- introduce changes in business practice in both the core and the support markets, resulting in pro-poor impacts for core market producers. In keeping with the structure of moving down the TOC, we first address changes in the core market before examining what the support did that led to these changes.
- embed and sustain these changes among programme participants and encourage other market actors in a similar situation to copy them.

We also review the degree to which the observed changes in the market system are attributable to the programme by considering other influences and sources of support programme participants have received.

[102] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

Figure 6: EQ Cluster 2

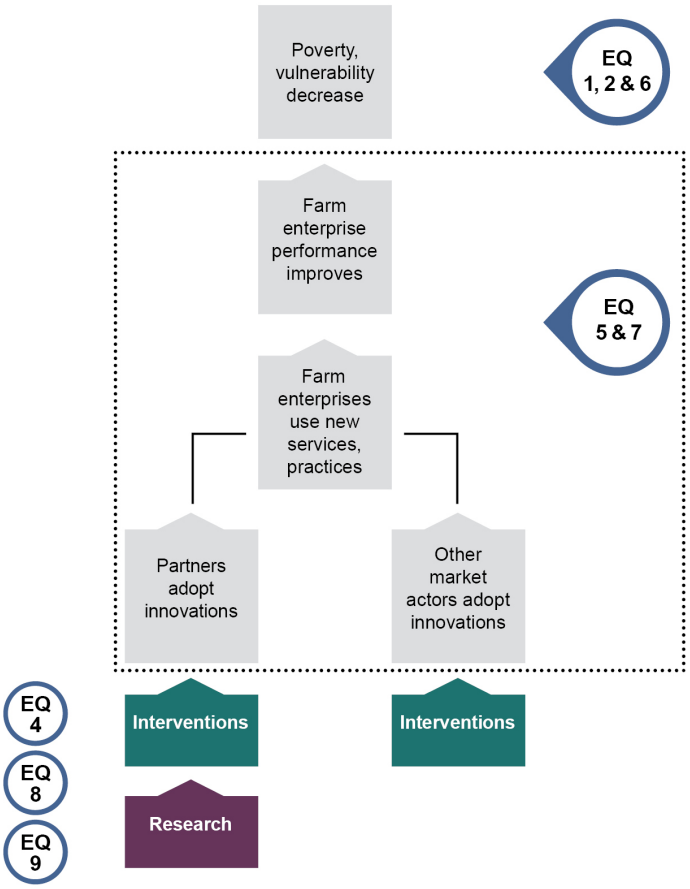


Table 13: Key findings – EQ Cluster 2

EQ	5
How effective was the programme as a whole in delivering the promised outcomes (including initiating behaviour or actions that might result in systemic change)?	
Key findings	**RAG[103]**
The programme as a whole was, for the most part, successful in generating practice changes among SHF in the core of the market, leading to improvements in productivity, at least during the programme lifetime. Not all intended changes to practice were made, however. Interventions' 'success' in driving core market change is often related to the type of support market change introduced by programme partners, as described below.	
The programme was successful in working with partners to introduce a range of changes in the support market, focusing especially on supply-side services.	

[103] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

Those interventions which were more successful in driving core market changes to practice were those which: i) Introduced changes in the support market which addressed **both** supply-side, input market-related challenges among producers and demand-side, output market-related challenges (which was rare); ii) Engaged with and leveraged the resources of the public sector to tackle rules-focused constraints; iii) Selected partners strategically and ensured a deeper level of commitment from the private sector; and iv) Were typically in the second phase of programme implementation.	
Contribution to observed change is generally high, with programme partners and the market intermediaries and producers they work with making changes as a result of programme facilitation. There are exceptions, however, particularly in the vegetable sector. The degree of intervention additionality varies, and is highest where the programme produced strategic assets and worked in sectors that have received limited support to date.	

EQ	7

To what extent are the outcomes and impacts sustainable?

Key findings	RAG
The sustainability of practice changes introduced into the core and support markets by first-phase interventions, and therefore linked outcomes and impacts, is low. Once again, sustainability is higher where the commitments on the part of the private sector partners are higher and where interventions tackled demand-side as well as supply side constraints.	
There is some evidence that partners engaged in second-phase interventions have continued to adapt models and plan to expand the new services and models they offer to additional producers and producer groups, which points to higher sustainability for these interventions. The evaluation team did not find evidence of crowding-in on the part of other, competing, market actors.	

4.3.1 Was the programme effective in reaching producers and in driving change in the core of the market? (EQ5)

The programme as a whole was, for the most part, successful in generating practice changes among SHF in the core of the market, leading to improvements in productivity, at least during the programme lifetime.

The evaluation team assessed the effectiveness of a series of interventions in the four selected agricultural sectors and in tourism in driving behaviour change and household enterprise-level outcomes for poor producers. Table 14 summarises the key findings related to core market change across the evaluated interventions and covers a number of dimensions of intervention effectiveness in the core of the market, including: whether the interventions reached the intended number of producers; whether they produced the intended changes to practice; and whether they achieved the intended business-level outcomes (in terms of increased productivity and revenue). These aspects of intervention effectiveness are discussed in more detail in the sections below. In making evaluative assessments on the effectiveness of interventions, the evaluation team makes reference back to their theory of change and intended results (a more detailed presentation of each interventions' theory of change and the evidence collected by the evaluation team against these theories can be found in the Sector Reviews annexed to this report).

As a brief note it should be highlighted that the majority of the interventions evaluated focused on the interaction between poor producers and other market actors in the core of the market, although in two interventions the core market exchange (the product diversification intervention in the dairy sector and the trade and marketing intervention in the pig sector) can more accurately be

described as being located in the interaction between national and local processors, rather than between these local processors and poor producers. For comparability, Table 14 covers the effectiveness of these two interventions in driving practice changes for both processors (in the core of the market) and upstream producers.

Table 14: Overview of effectiveness in the core market[104]

Sector and Intervention[105]	Intended results				Observed results				Outreach	Phase
	Intended practice change?	Increased productivity	Increased revenue	Increased prices	Observed practice change[106]	Increased productivity	Increased revenue	Increased prices		
Vegetables – SM&A	Increased adoption of high-quality seeds and production planning; Closer relationships between traders, agrovets and producers; Grading and sorting; Selling veg through CC	Yes	Yes	Yes	**PARTIAL**[107]: Adoption of production planning and of high-quality seeds. No adoption of grading and sorting.	Yes	Yes	No	28,639	1st
Vegetables - CPI	Increased use of bio-pesticide	Yes	Yes	No	**YES**: Adoption of bio-pesticide.	Yes	Yes	No	50,629	2nd
Vegetables-AB	Increased adoption of IPM; Sorting and grading produce; Receiving buy back guarantee for agri-business	No	Yes	Yes	**PARTIAL**: 50% of farmers adopting IPM guidelines. Majority of produce still sold unsorted and graded (at non-IPM price).	No	Yes	Yes	1,222	2nd
Dairy - GMP	Adoption of better manufacturing practices by processors	Yes	Yes	No	**PARTIAL**: Majority of farmers adopting most GMP steps, fewer farmers adopting all GMP steps.	Yes	Yes	No	6,216	1st
Dairy - FS	Increased farmers' awareness and adoption of forage farming	No[108]	Yes	No	**YES**: Increased adoption of forage farming	No	Yes	No	16,625	2nd

[104] This table draws on evidence from the Household Survey Reports and Annexes C.3, D.3, E.3 and F.3
[105] SM&A – seed market and aggregation; CPI – promotion of CPI through low-cost demos; AB – agribusiness; GMP – enhanced quality of raw milk; FS – access to forage seed; PD – product diversification; VB – village hybrid pig breeding; AI – improved breeding through (frozen and fresh semen) artificial insemination; T&M – trade and marketing; DM – disease management; IPS – integrated pit storage.
[106] Practice changes observed during intervention lifetime, these changes may or may not have been sustained, as discussed later.
[107] 'Partial' indicates that not all anticipated changes to practice in the core of the market were achieved. In the case of the SM&A intervention, grading and sorting was not successfully introduced. Further information on changes to practice in the core of the market for these interventions can be found in Annexes C.3, D.3, E.3 and F.3.
[108] No increased productivity but focus on reducing costs

Dairy - PD	New production practices among local processors. Adoption of GMP steps by producers	Yes	Yes	Yes (for processor)	**YES**: Adoption of production practices and of GMP by producers and processors.	Yes	Yes	Yes (for processor)	12,780	2nd
Pigs - VB	Supply and adoption of pure breed pig stock; Producers sell into formal markets	Yes	Yes	No	**PARTIAL**: Adoption of pure breed pig stock, but producers continuing to sell to local butchers in informal markets	Yes	Yes	No	22,766	1st
Pigs - AI	Using frozen and fresh semen AI services	Yes	Yes	No	**PARTIAL**: Commercial breeders using AI service (but geographically limited); Village level pig breeders largely not using AI	Yes	Yes	No	2,330	2nd
Pigs – T&M	Producers adopting better pig husbandry practice; Improved slaughtering capacity and practice and new voluntary production quality standards for local processors	Yes	Yes	No	**PARTIAL**: Producers adopting better husbandry practices and processors adopting new production processes and increased capacity. Voluntary production standards not yet adopted	Yes	Yes	No	533	2nd
Ginger - DM	Adoption of Disease Management products	Yes	Yes	No	**PARTIAL**: Increased adoption of Trichoderma and improved productivity. However, market for ginger collapsed.	Yes	No	No	12,592	1st
Ginger - IPS	Adoption of pit storage	Yes	Yes	Yes	**NO**: Ginger market collapsed, reducing interest in storage solutions	No	No	No	N/A	1st

Effectiveness in reaching producers: As highlighted in Table 14, all the evaluated interventions met their targets for the numbers of producers they were expected to reach[109]. There is a significant variation, however, in the numbers of producers reached by the evaluated interventions.[110] Overall (although there are a few exceptions), interventions in the first phase of implementation reached more producers than second-phase interventions. This is directly related to the models of private sector participation discussed in Section 4.3.3 below. In the first phase, interventions were typically geographically broad and reached a large number of producers (the seed market and aggregation intervention in the vegetable sector is typical of this approach). In the second phase, interventions were typically geographically narrower and reached fewer producers, but established deeper connections between market actors, increasing the likelihood of sustainability (the agribusiness intervention in the vegetable sector is typical of this approach). There are some exceptions to this pattern: the second-phase intervention in the vegetable sector to promote CPI use through low-cost demonstration combined both approaches in parallel: a broad-based strategy involving a large number of agrovets demonstrating CPI to producers and a deeper value chain strategy involving one seed wholesaler working with a smaller number of cooperatives.

Effectiveness in driving practice changes in the core of the market: As highlighted in Table 14, the majority of the evaluated interventions resulted in some form of anticipated practice change in the core market.[111] t the same time, the majority of the interventions failed to achieve these changes to the expected breadth and depth. A number of examples are worth highlighting:

- *Village hybrid pig breeding (pig sector):* This intervention sought to encourage producers to introduce hybrid pig breeds and to introduce practice changes related to pig-rearing and care with the expectation that they would increase productivity and increase profitability by selling into the formal market. However, the available evidence suggests that not all producers introduced hybrid varieties, few introduced recommended improvements to pig pens and most continue to slaughter and sell meat locally in the informal sector.[112]
- *Improved breeding stock (pig sector):* This intervention sought to introduce artificial insemination (AI) services into the support market to improve the breeding stock and to reduce costs for producers, but take-up in the core market is limited to-date.[113]
- *Seed market and aggregation (vegetable sector):* These interventions sought to introduce changes in both input and output markets. While they were partly successful in introducing changes in the use and types of inputs, as well as production planning, they were less successful in introducing grading and sorting among producers.[114]
- *Agribusiness (vegetable sector):* This intervention sought to introduce an integrated pest management (IPM) scheme into the core market, but an estimated half of the producers targeted had not participated at the time of writing.[115]

[109] This is based on programme results reporting.
[110] This section discusses the outreach of the evaluated interventions in terms of the numbers of producers reached during the lifetime of the intervention; Section 4.3.3 discusses the prospects for the future scale of the interventions.
[111] Only one intervention, Integrated Pit Storage in the ginger sector, did not produce a noticeable core market change, which was largely attributable to the collapse of the ginger market following the imposition of an import ban for Nepal ginger by India.
[112] Evidence from Module B is supported by evidence from Module A: Household Survey Report (Annex D.1) and QuIP (Annex D.2).
[113] Annex D.3.
[114] Annex F.3.
[115] Annex F.3.

- *Enhanced quality of raw milk (dairy sector):* This intervention sought to encourage producers to implement 12 GMP steps to improve the quality of raw milk, but a significant majority of producers changed practice to follow only 10 steps rather than all 12.[116]
- *Integrated pit storage (IPS) (ginger sector):* This intervention sought to encourage the uptake of storage by traders and producers but few implemented the technique.[117]

Box 3: Evidence of core market change in the tourism sector

The evaluation finds that practice change in the core of the market in the tourism sector has been generally low. The evaluation looked at two interventions in the sector, the development of the Good Himalayan Trails (GHT) brand and the development of new Trail Standards. In the case of the GHT brand, recognition among tour operators is low (only 15 out of 2,367 tour operators are listed as GHT specialists to date). In the case of Trail Standards, the impact on the core of the market also appears limited; only four trails have been audited to date and it is not clear if this has resulted in changes to practice and improved standards along the trails.

Effectiveness in improving business-level performance: Most interventions (but not all) attempted to improve productivity in the core of the market. Of those that did, most were successful, with some notable examples. In the dairy and pig sectors, producers who applied new information related to production practices improved productivity in spite of the increased costs. Dairy farmers in the e*nhanced quality of raw milk* intervention reported a decrease in milk loss of 5.5 litres – eighteen 18 times that of the comparison group. This change was more effective for producers with five cows (or more) than for SHF.[118] Pig farmers *in the village hybrid pig breeding intervention* reported a nearly 25% increase in the weight of their pigs, over a 10% shorter fattening time.[119]

While the evaluation was not able to collect quantitative data for all interventions, qualitative evidence drawn from interviews with Samarth partners and associated stakeholders (cooperatives etc.) and producers suggests that productivity in the core of the market increased in the promotion of CPI through low-cost demonstrations intervention in the vegetable/CPI sector (particularly where the programme worked with a seed wholesaler to increase seed germination rates),[120] the product diversification intervention in the dairy sector[121] and the AI and trade and marketing interventions in the pig sectors.[122]

4.3.2 Was the programme effective in introducing changes in the support market (supporting functions and rules)? (EQ5)

The programme was successful in working with partners to introduce a range of changes in the support market, focusing especially on supply-side services.

Those interventions which were more successful in driving practice changes in the core and support markets were in the second phase of implementation, worked on both supply and demand-side challenges and engaged actively with government to tackle enabling environment constraints.

[116] Evidence from Module B is supported by evidence from Module A: Household Survey Report (Annex C.1) and QuIP (Annex C.2).
[117] Evidence from Module B is supported by evidence from Module A: Household Survey (Annex E.1) and QuIP (Annex E.2).
[118] Annex C.1
[119] Annex D.1
[120] Annex F.3
[121] Annex C.3
[122] Annex D.3

Table 25 summarises evidence from across the evaluated interventions with regard to various dimensions of support market engagement by Samarth partners. It covers the most common support market changes to practice introduced by Samarth partners, the breath of private sector participation and the degree of public sector participation. This synthesis of evidence reveals that changes to support market practice can be grouped into two categories: changes that focused on input markets and changes that focused on output markets. With regard to input market-focused changes, Samarth interventions typically worked with partners to increase poor producers' access to information, new production techniques or agricultural inputs, or a combination of all three. With regard to output market-focused changes, Samarth interventions typically worked with partners to increase market access and/or to enhance the quality of production. These changes to practice and ways of working are discussed further in this section.

Table 15: Summary of major changes introduced in the support market by Samarth partners[123]

Sector		Vegetable			Dairy			Pig			Ginger	
Intervention[124]		SM&A	CPI	AB	GMP	FS	PD	VB	AI	T&M	DM	IPS
Changes focused on input markets	Access to information	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Access to new techniques	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Access to inputs	Yes	Yes	Yes	Partial[125]	Partial[126]	Partial[127]	Yes	Yes	Yes	Yes	No
Changes focused on output markets	Improved access to market	Yes	No	Yes	No[128]	Yes	Yes	No	No	Yes	No	No
	Quality production	Partial[129]	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
Scale/breadth of private sector participation		L	L[130]	S	M	M	S	L	M	S	L	L
Public sector participation		S	L	L	S	S	S	S	L	L	S	S
Phase of implementation		1st	2nd	2nd	1st	2nd	2nd	1st	2nd	2nd	1st	1st

Changes to practice in the support market

The programme supported the introduction of a series of changes to programme partners' practice which focused on supporting functions. While these vary across the interventions evaluated, there are some common patterns. As Table 15 illustrates, in all sectors Samarth partners introduced changes that focused heavily on input markets. In the vegetable sector, for instance, all of the interventions studied involved private or public sector partners of the programme providing

[123] The information in this table is drawn from the evaluation team's Household Survey Reports and the Sector Reviews annexed to this report: Annexes C.3, D.3, E.3 and F.3. During the synthesis stage, the evaluation team rated evidence of the scale of private sector participation according to a simple three-point scale (small/medium/large).
[124] SM&A – seed market and aggregation; CPI – promotion of CPI through low-cost demos; AB – agribusiness; GMP – enhanced quality of raw milk; FS – access to forage seed; PD – product diversification; VB – village hybrid pig breeding; AI – improved breeding through (frozen and fresh semen) artificial insemination; T&M – trade and marketing; DM – disease management; IPS – integrated pit storage.
[125] Some inputs in the form of milk cans were provided.
[126] Partners provided some inputs (seeds etc.) to farmers on a trial basis.
[127] The intervention provided local processors with access to new production technologies and farmers with some new inputs (milk cans etc.)
[128] Attempts were made to improve market access by signing agreements with milk producers but these agreements were not sustained, as a result of quality issues (see Section 5).
[129] The intervention aimed to introduce some quality-focused practice changes – namely, post-harvest sorting and grading – but evidence suggests take-up was partial (and was not sustained).
[130] The CPI intervention piloted two different models to promote CPI use, one involving agrovets, which involved many agrovets with public sector participation. This evidence presented here is relevant to this intervention. The pilot also worked with a single seed wholesaler to promote CPI through a different model, which was involved far fewer participants but provided improved access to market and has been more sustainable (see Section 4.3.4).

producers with a combination of access to new techniques, access to information and access to inputs.[131] The dairy[132] and pig[133] sectors also focused heavily on input markets (although in two of the interventions studied Samarth partners did not work directly with producers themselves but partnered with other organisations in the supply chain that did). The ginger sector[134] differed slightly from the other sectors in that (of the interventions selected for evaluation) one focused solely on changes relevant to input markets (with partners providing access to a combination of new techniques, information and inputs to producers) and one focused on pit storage, which is relevant to both input and output markets.

Samarth interventions tended to focus less on changes relevant to output markets and, where they did, they focused mainly on issues of production quality rather than market access. Two dairy interventions focused on issues of quality while only one attempted substantive change with regard to market access, while in the pig sector, three interventions focused on issues of quality in the production process but only one focused on market access. The vegetable sector is slightly different in that two of the evaluated interventions focused on improving the quality of produce and simultaneously on improving access to market. The ginger sector is an outlier again in that the focus on changes relevant to the output market (in the evaluated interventions) was minimal, with the partial exception of pit storage, which is relevant to store the ginger crop for delayed sale into off-season markets.

Models of private sector participation

A central aspect of the M4P approach is for the programme to partner with market actors, which will then be able to learn from the pilot and adapt the model to their circumstances before widening the rollout.

As part of its work to introduce changes to supporting functions, the programme forged partnerships with a range of private sector organisations. It's worth highlighting, however, that the breadth and depth of private sector engagement varies between interventions. While not a clear-cut distinction, the first phase of programme implementation is characterised by geographically broad interventions that feature the participation of an extensive number of private sector actors. For instance, in the vegetable sector, the first-phase seed market intervention partnered with seed wholesalers and a large number of local agrovets, who received financial and technical support to provide information and demonstrations to vegetable producers on the cultivation of hybrid vegetable seeds.[135] In the pig sector, the first-phase village hybrid breeding intervention partnered with commercial-scale pig breeders and a large number of pig market agents to provide access to, and information on, rearing hybrid piglets.[136] Only one intervention evaluated (the enhanced quality standard of raw milk intervention in the dairy sector) had limited private sector involvement, being implemented primarily in partnership with the national-level Central Dairy Cooperative Association and a group of local milk collection cooperatives.[137]

In contrast, the second phase of programme implementation is characterised by a series of interventions that feature the participation of a smaller number of market actors but more extensive forward and backward linkages across the value chain. For instance, in the product diversification intervention in the dairy sector, Samarth narrowed its partner focus and partnered with only two national-level private processors. These market actors significantly deepened their commitment by

[131] Annex F.3; see also Annexes F.1 and F.2 for the seed market and aggregation intervention.
[132] Annex C.3; see also Annexes C.1 and C.2 for the GMP intervention.
[133] Annex D.3; see also Annexes D.1 and D.2 for the village hybrid pig breeding intervention.
[134] Annex E.3; see also Annexes E.1 and E.2 for the disease management and IPS interventions.
[135] Annex F.3
[136] Annex D.3
[137] Annex C.3

investing in a local production facility and by reaching a commercial agreement for the supply of cheese, respectively.[138] This is similar to the trade and marketing intervention in the pig sector (where Samarth partnered with a national pork processor, which worked in turn with two local slaughterhouses)[139] and with the agribusiness intervention in the vegetable sector (where Samarth partnered with one Kathmandu-based vegetable wholesaler, which established purchase agreements with local cooperatives).[140]

Besides demonstrating a more strategic choice of partners and increased private sector commitments along the value chain, what is also distinctive about these second-phase interventions is that they worked in all of the supporting system change areas described above, focusing on both input and output markets. In the agribusiness intervention, for instance, the intervention provided access to new techniques, information and inputs to support the adoption of IPM in vegetable cultivation, while also working to increase market access specifically for (improved quality) graded and sorted produce.

Public sector engagement

The degree of public sector engagement varies between interventions and between the first and second phases of programme implementation. While again not a clear-cut distinction, the degree of engagement with the public sector increased in the second phase of implementation, typically as part of a programmatic effort to work with the public sector to tackle specific rules-focused constraints in the support market, leveraging public sector networks to enhance the scale of implementation, or as part of efforts to gain greater recognition for emergent sectors from the public sector. Evidence suggests that the enhanced focus on public sector engagement in the second phase of programme implementation reflects an effort to learn from perceived weaknesses in earlier intervention design and to adapt and improve intervention design. The effectiveness of this adaptation is discussed in this section and also below under sustainability and scale.

Box 4: Evidence of support market change in the tourism sector

The evaluation finds that the Nepal Tourism Board (NTB) has adopted new Trail Standards developed by Samarth. As a representative of NTB reported, *'With publishing of the guideline by the government, we now follow the guideline for improving and exploring new routes. Many people come to us and request to help them to improve the trails so it has been a basic and important tool'* (15 August 2018).

Tackling rules-focused constraints

A number of second-phase interventions engaged the public sector to tackle rules-focused constraints. In the pig sector, for instance, the trade and marketing intervention specifically aimed to tackle quality-related constraints in the pork supply chain (which had been identified during first-phase interventions) by engaging DLS and the Department of Food Technology and Quality Control to register pork processors and to develop a voluntary code of conduct for slaughterhouses. Again, this represents a more strategic, systems-focused approach to addressing quality issues and a strategy adaptation as more information on constraints became available.[141]

In the dairy sector, the second phase forage intervention engaged with the Nepal Agricultural Research Council (NARC) to register (at the time of the evaluation's research) six new seed varieties. This too represented a change of strategy, as a shortage of registered seed varieties in

[138] Annex C.3
[139] Annex D.3
[140] Annex F.3
[141] Annex D.3

Nepal had been recognised by an internal Samarth end-of-pilot review as a key weakness which had limited progress in the earlier first phase forage intervention[142]. Respondents in the sector recognise that increased capacity and collaboration between government and public sector and private sector forage research centres (FRCs) to test, multiply and register new seed varieties represents a key improvement in the sector's supporting system.[143]

Leveraging public sector resources

A number of second-phase interventions leveraged public sector resources to increase the scale of intervention reach. In the vegetable sector, for instance, the promotion of CPI through low-cost demonstrations actively engaged (and helped build the capacity of) the Plant Protection Department, which in turn upskilled private sector agrovets to offer demonstrations in the use of CPI products. This reflects a change of strategy from the earlier seed market intervention, which had engaged the private sector to build capacity at the producer level in the use of hybrid seed varieties but had not engaged the public sector at a national level. This represents an effort to take a more systemic approach to addressing weaknesses in the market's supporting functions (in this case, the supply of up-to-date information on the use of CPI) and to leverage the existing public sector system for capacity-building and information-sharing.[144]

Contribution to change and additionality of interventions in the core and support markets

As part of the research into Module B, the evaluation team sought to understand the degree of contribution of Samarth interventions to observed changes in the core and support markets. While Module B did not have a counterfactual against which to compare changes, the evaluation team sought to do this by following a contribution analysis-based process to determine if a) the interventions had been implemented as planned and b) if there were any other contributing factors to the changes made. In Module B, the evaluation team asked respondents (partners and linked producers, especially) to describe the changes they had made to practice and compared this to evidence collected as part of Module A (quantitative household data and QuIP) and secondary information (such as programme reporting. The team also asked respondents about their reasons for making changes to practice to determine whether they were related to Samarth or another factor (such as other government and donor programmes operating in the vicinity). This was a complex task given the time that has elapsed since the start of programme interventions, in many cases the lack of baseline information, and the number of other government and non-government programmes operating in some sectors.

Nevertheless, the evaluation team observes that the programme's contribution to change is generally high; programme partners in most sectors did indeed make changes to practice in the support market as a result of the programme's resources and, in turn, other market actors and producers linked to these partners typically made their own changes to practice as a result of these new activities and services in the support market.[145] There are exceptions, however. Multiple programme participants in the vegetable sector in particular, especially in the first-phase seed market and aggregation interventions, highlighted a number of other contributing programmes that had provided significant support to their businesses during the programme implementation period, even if they had not necessarily helped to make the specific changes to practice being promoted

[142] Oakley, R. et al. (April 2014). 'Assessing the prospects for sustainable results from Samarth-NMDP pilot interventions in the dairy sector'. End of Pilot Review.
[143] Annex D.3
[144] Annex F.3
[145] Annexes C.3, D.3, E.3 and F.3

by Samarth.[146] This evidence is supported by evidence collected through the QuIP study in the vegetable sector, in which respondents highlighted a wide range of other organisations as sources of support.[147] This evidence speaks to the 'crowded' nature of the vegetable sector: many market intermediaries and producers have received support from a wide range of government and non-government programmes in recent decades, the majority offering 'direct' support in the form of assets and finance. This partly explains the findings of the household quantitative survey in the vegetable sector, which finds that non-intervention producers have increased income more rapidly than intervention producers[148]

In the dairy sector too, one of the local-level producers working with a Samarth partner in the second-phase product diversification intervention credits other donors as having contributed to the growth of the business during the programme implementation period, although the change in practice adopted is solely credited to Samarth.[149]

While the programme's contribution to observed change is generally high, the degree of additionality of programme interventions varies more significantly. The evaluation team finds that additionality is highest where interventions worked with sector actors to produce new resources and/or where they facilitated the establishment of new associations to improve sector coordination and to advocate for increased recognition from donors and the public sector.

Table 16 highlights particular examples of new resources produced by interventions that have the potential to make a strategic contribution to improving the enabling environment in their sectors. All of these resources were produced in the second phase of the programme.

Table 16: Resources produced by interventions[150]

Sector	Example resources
Dairy	Updated good manufacturing practice guidelines for milk producers Manufacturing guidelines for milk processors
Vegetables	Updated guidelines on the use of CPI
Pigs	Public and private sector capacity for frozen and fresh semen AI Voluntary standards for slaughterhouse operation
Tourism	Trail standards New GHT brand

Not all of the resources interventions have produced have had the same degree of additionality. Additionality is higher where the resources produced are strategic and available to multiple public and private sector actors. Typically, these resources were produced in conjunction with public sector organisations, such as the updated GMP guidelines for producers in the dairy sector and the voluntary standards for slaughterhouse operation in the pig sector. Additionality is lower where the resources are available only to a small number of actors, such as the increased private sector capacity for frozen and fresh semen AI in the pig sector and the manufacturing guidelines for milk processors in the dairy sector, although these resources are still important in the context of 'thin' markets with relatively few actors.[151]

[146] For more information on other contributing factors cited by respondents in these interventions, see Annex F.3, Sector Review: Vegetables.
[147] Annex F.2
[148] Section 4.2 and Annex F.1
[149] For more information on other contributing factors cited by respondents in this intervention, see Annex C.3, Sector Review: Dairy.
[150] The information in this table is drawn from the Sector Reviews annexed to this report: Annexes C.3, D.3, E.3 and F.3.
[151] Annex D.3, Sector Review: Pigs

Additionality is also highest where Samarth intervened in sectors that have received more limited recognition from donors and the public sector in the past and adopted models that were significantly different from those being used by other market actors, in particular in the pig sector,[152] and the forage seed and product diversification interventions in the dairy sector.[153]

In pig sector and forage seed sub-sector, Samarth facilitated the establishment of new sector organisations that aim to improve coordination and to advocate for increased recognition. In the forage seed sub-sector, respondents recognised the newly established Seed Producers' Association as making a significant contribution to improved cooperation between market actors, including unifying independent forage initiatives in different districts:

> *'This is a remarkable achievement, there were organisations prior to that from the government such as District Grass Development Association but ineffective and inactive'* (KK Enterprise, Kavre, 9 December 2018).

For its part, respondents recognised the Pig Entrepreneurs Association of Nepal (PEAN) as playing an effective role in raising the profile of the sector in the eyes of the public and the government, through such activities as the annual Pork Festival and workshops with government,[154] although there are questions regarding the degree to which it represents all producers in the sector and its sustainability.[155]

Additionality was lowest in sectors that received significant support from other donors and government in parallel to Samarth's interventions and where Samarth introduced models that were similar to those being used by other development actors. As noted above, the vegetable sector is a primary example of this, although it is also true for the ginger sector. In terms of additionality, the vegetable sector seed market and aggregation interventions introduced models that were similar to models already being implemented by Samarth's IP (iDE). These interventions, and the second-phase intervention to promote the use of CPI by working with agrovets, also failed to take into account existing commercial models for demonstrating agricultural products in the vegetable sector, which further reduced Samarth's additionality from these interventions.[156] [157]

Opportunities to increase the additionality of Samarth's strategy in each sector by more clearly linking individual interventions were missed; as interviews with programme staff and monitoring data reveal, interconnection between interventions was low, partly as a result of pressure to increase total programme outreach by avoiding 'overlaps' in beneficiaries.[158]

4.3.3 Was the programme sustainable and did interventions reach scale (through systemic change)? (EQ7)

Table 17 presents a summary of evidence for intervention sustainability (ongoing implementation of changed business practices in the core and support markets) and scale (scale-up by intervention-supported market actors and expansion by others). These are discussed in turn in this

[152] FGD with pig sector KIIs, facilitated by the evaluation team (and organised with the support of the programme team), August 2017
[153] Annex C.3, Sector Review: Dairy
[154] Annex D.3
[155] Annex D.3
[156] The internal Samarth end of pilot review highlighted the low additionality of the seed market and aggregation interventions. The evaluation team confirmed this and identified a similar pattern in the second-phase CPI promotion intervention. Further information can be found in Annex F.3, Sector Review: Vegetables.
[157] Annex F.3
[158] See Section 4.4 for a fuller discussion of intervention relevance.

section. A more detailed presentation of the evidence collected by the evaluation team can be found in the Sector Reviews annexed to this report).

Table 17: Overview of sustainability and scale[159]

Sector/ Intervention[160]	Degree of sustainability	Evidence of sustainability	Intended scale-up strategy	Evidence of scale
Vegetable – SM&A	**Low**	Evidence that new relationships between agrovets, traders and local government have been sustained, as has advice provided to producers. However, the model introduced has not been sustained, especially the provision of inputs and field-level support through demos and efforts to introduce grading and sorting. Programme subsidies to agrovets and traders high and not sustainable. Continuing constraints in storage and transport and issues of trust between producers and market actors. Lack of market differentiation for higher quality.	**Adapt**: Supported AVs and wholesalers sustain and expand services to new areas **Expand**: Strategy not clear	**None**
Vegetable – CPI	**Low**	Provision of inputs, demonstrations of CPI and relationships between agrovets and Trichoderma producers not sustained; continuing challenges related to a lack of storage and collection facilities.	**Adapt:** Supported agrovets and importers sustain and expand services **Expand:** More AVs and importers promote CPI and low-cost demonstrations	**None**
Vegetable - AB	**Medium**	Established post-harvest processing centre and supply chain shortened raising profitability; Agri-business continues to provide inputs and advice and approx. 50% of producers continue to follow IMP guidelines. Continuing challenges of market differentiation and market access.	**Adapt**: Supported agri-business sustains and expands model to additional producers **Expand:** More agri-businesses adopt similar business models	**Limited:** Agri-business is expanding business to new cooperatives. Limited numbers of farmers adopting IMP limit scalability and expansion.
Dairy - GMP	**Medium**	DLS endorsed new GMP training guidelines and plans to continue using them. Producers and coops continue to follow the majority of GMP steps. However, future sustainability may be undermined by limited enforcement of existing quality standards and a lack of mechanisms to pay premium prices for higher quality; Negative change in income	**Adapt**: Supported processors sustain and expand model to implement GMP in their supply chains **Expand**: More processors build capacity of CC/Coops on GMP	**None**
Dairy - FS	**High**	Stronger ties between public sector and FRCs; Establishment of network and Forage Seed Association and continuing adoption of forage by dairy producers. However, challenges remain related to (un)willingness to pay for training and expectation of subsidised seeds and saplings.	**Adapt:** Supported seed producers expand model to produce, market and sell forage and sapling **Expand**: More seed producers produce, market and sell forage seed and sapling	**Limited:** Seed producers expanded customer base, but scale is significantly influenced by government priorities. No evidence of expansion.

[159] The information in this table is drawn from the evaluation team's Household Survey Reports and the Sector Reviews annexed to this report: Annexes C.3, D.3, E.3 and F.3. During the synthesis stage, the evaluation team rated evidence for sustainability according to a simple three-point scale (low/medium/high) and for scale according to a simple two-point scale (none/limited) taking into account whether there is evidence for adaptation, expansion or crowding-in, or a future intention to do so on the part of market actors.
[160] SM&A: seed market and aggregation; CPI: CPI through low-cost demos; AB: agribusiness; GMP: quality of raw milk; FS: forage seed; PD: product diversification; VB: village hybrid pig breeding; AI: artificial insemination; T&M: trade and marketing; DM: disease management; IPS: integrated pit storage.

Sector/ Intervention [160]	Degree of sustainability	Evidence of sustainability	Intended scale-up strategy	Evidence of scale
Dairy - PD	**High**	Increased market access for local processors through sustainable relationship with national processors. Continued operation of new production facilities and continued provision of GMP advice to producers. However, further diversification of products stalled due to lack of technology.	**Adapt**: Supported processors sustain and expand model to produce and diversify dairy products **Expand**: More processors adopt similar business models	**Limited:** Supported processors are planning to expand and adapt the model, however there are significant financial constraints that might limit adaptation in the future. No evidence of expansion.
Pig - VB	**Low**	Subsidised access to improved breeds and other production services not sustained. Evidence that smallholder farmers are not sustaining pig production as a result of India's economic blockage, the 2015 Earthquake and rising input prices.	**Adapt:** Supported CPBFs sustain and expand business **Expand**: Additional CPBFs adopt business model	**None**
Pig - AI	**Medium**	Continued AI training and equipment provision; Government willing to re-import frozen semen stocks and evidence that commercial farmers are using fresh semen AI. However, access to formal markets remains a challenge for small-scale producers and the system is fragile (one of two AI providers is no longer providing the service).	**Adapt**: Supported AI service providers sustain and expand business **Expand**: New AI service providers provide AI services to breeder farmers	**Limited:** One of two AI service providers is sustaining and adapting AI service, one AI service provider is no longer providing service. No evidence of expansion.
Pig – T&M	**Medium**	Continuing relationships between local processors and producers, with new production practices being followed in one of two cases. Some evidence that new slaughtering practices have been sustained, although no clear evidence that voluntary codes of conduct continue to be applied and no evidence of continuing accreditation of production units by national-level processors.	**Adapt:** Supported slaughterhouses and processors sustain and expand business **Expand**: Additional slaughterhouses improve slaughtering capacity and standards, as well as disseminating information on good husbandry practice; Additional processors accredit processing units and purchase more quality pork	**Limited:** Limited incentives for market players limit scalability. Attempt to expand to new markets in Bhutan, but this channel has not yet been secured.
Ginger - DM	**Low**	Market for ginger collapsed after the end of intervention	**Adapt:** Supported Avs and importers sustain and expand services to new areas **Expand**: Additional AVs and importers offer inputs and services	**None**
Ginger - PS	**Low**	Collapse of ginger market resulted in interruption of relationships between farmers and local traders	**Adapt:** Supported traders and processors sustain and expand storage to new areas **Expand**: Sector bodies (NGPTA and NGRC) support adoption of practice among other market actors	**None**

Sustainability of changes to practice in the core and support markets (after intervention closure)

The sustainability of practice changes introduced into the core and support markets by first-phase interventions, and therefore linked outcomes and impacts, is low.

Table 17 presents an overview of evidence for intervention sustainability in terms of the ongoing implementation of changed business practices in the core and support markets after the closure of programme interventions. Broadly, the evidence suggests that prospects for sustainability are much higher for second-phase interventions than for first-phase interventions. This is particularly true for interventions in the second phase of implementation in which the commitment on the part of the private sector actor (i) was relatively high; and (ii) tackled supply- and demand-side constraints at the same time. A notable exception is the AI intervention in the pig sector, where the new fresh semen AI services launched are fragile and have been sustained by only one of two programme partners.[161]

On the other hand, sustainability is lower in first-phase interventions. There are many cases in which practice changes introduced into the core and support markets in first-phase interventions have not been sustained. For instance, in the seed market and aggregation intervention in the vegetable sector,[162] evidence suggests that changes to post-harvest practice, including grading and sorting, have not been sustained, while in the village hybrid pig breeding intervention in pigs,[163] changes to husbandry practice have also not continued. In the ginger sector, sustainability of changes in both interventions studied has also been low.[164]

The sustainability of core market business changes is not yet clear. While the evaluation found that core market business practice had changed in four interventions and partial change had occurred in six interventions (Table 17), the evaluation was not able to determine to what extent these practices had become embedded in SHF daily operations. Given the absence of market mechanisms to reward premium products, it is likely that business changes that incur increased costs will not be sustained, while those with little or no additional costs may continue to be practised.

It should be noted that the evaluation team's ability to assess sustainability was greater for first-phase interventions given the timing of the evaluation; research for the evaluation was typically conducted two to three years after the close of these interventions, which enabled the team to determine whether changes to practice in the core and support market, and any associated benefits to producers and market intermediaries, had been sustained. At the same time, the timing of the evaluation made the assessment of sustainability in second-phase interventions more premature, however the evaluation team nevertheless considered proxies for sustainability, such as information on sales performance and actors' willingness to continue practice changes, etc. The team also looked for emergent evidence of scale – for instance whether partners had (or were planning to) expand new models, or if there was evidence that other market actors were crowding in to replicate models (or planned to do so).

[161] Annex D.3
[162] Annex F.3
[163] Annex D.3
[164] Annex E.3

Box 5: Evidence of sustainability in the tourism sector

The evaluation finds that marketing activities in support of the new GHT brand have not been sustained. While the brand is a resource that could in theory be sustainable in the medium term absent any external shocks, its continued growth is not being sustained by marketing activities. NTB has hired a company to manage the GHT website but at the time of research no new content on the website, Instagram or Facebook pages had been added since January 2018. The sustainability of Trail Standards is also in question; responsibilities for trail management, auditing and upgrades are split among several agencies and are currently being devolved to municipal governments. At the time of research, this process was in progress, and it is not clear if municipal governments have the will, technical capacity and financial resources to adopt the new trail standards and communicate these to tour operators.

Scalability of changes to practice (as a result of broader systemic change)

There is no evidence that first phase interventions had reached scale following the intended scale-up strategies. However, there is some evidence that partners engaged in second-phase interventions have continued to adapt models and plan to expand the new services and models they offer to additional producers and producer groups, which points to higher scalability and sustainability.

Table 17 presents a summary of the available evidence for intervention scale in terms of scale-up by intervention-supported market actors and expansion by others. In making evaluative assessments of each intervention's success in reaching scale, we refer back to their theories of change and intended scale-up strategy and plot these against the AAER framework for systemic change (which defined systemic change according to adaption and expansion of new models and response by the market). In all cases, Samarth anticipated that interventions would reach scale through a combination of *adaptation* of new models by existing participants (who would continue to invest and expand services to new producers) and *expansion* by new players (who would crowd in and copy these new models). In most cases Samarth's scale up strategies are unconvincing; it is not clear how this scale-up process was expected to happen in practice and how the programme intended to support it. There appear to be a number of implicit assumptions around the ease to which new players in particular would be able to copy the new models introduced which is problematic given the relatively thin market context (which is discussed in more detail in Section 5).

In most cases, as highlighted in Table 17, the evaluation could find no evidence that first phase interventions had reached scale following the intended scale-up strategy. However, for several second phase interventions there appears to be limited prospects for scale-up in terms of continued investment and expansion by intervention-supported market actors (although not crowding in by other actors), although, again, it is quite early to tell at this stage and in some cases this assessment is based on the stated intentions by supported market actors rather than concrete actions. Nevertheless, there is evidence that partners in the agribusiness intervention in the vegetable sector,[165] the forage seed and product diversification interventions in the dairy sector[166] and the AI and trade and marketing interventions in the pig sector[167] have plans to expand and adapt the new services and models they offer to additional producers and producer groups, although at the time of research in most cases this had not yet happened.

[165] Annex F.3
[166] Annex C.3
[167] Annex D.3

Concluding comments

The programme introduced core and support market interventions changing business practices in both of its phases. Those introduced in the second programme phase tended to be focused on a narrower geographic area but with a deeper level of engagement with the partners and beneficiaries, in contrast with the interventions in the first programme phase. As a result, although the evaluation may be a little premature in terms of timing, the practices introduced in the second phase appear to be more embedded, at least in the support market, than those practices introduced in the first phase. It is unclear to what extent the core market changes will be sustained, as a result of an absence of economic drivers.

Most of the interventions in both core and support markets focused on input or demand-side markets. While private sector players were involved in almost all the interventions, the engagement of public sector players varied between interventions and between the two phases of the programme, with the public sector engagement in the second phase often focusing more on the regulatory or 'market rules' constraints.

Of the changes introduced into the core market, these generally resulted in increased productivity, with notable increases for SHF in the dairy sector who adopted these practices at scale.

4.4 Did the programme identify the correct causes of market failure? (EQ 4)

This section presents evidence against one of the EQs: Did the project correctly identify the underlying causes of market failure during planning? And how appropriate were the interventions to overcome these causes? In Table 18 below we present the key findings against this EQ and the strength of evidence for each of these. The strength of evidence is given a rating.[168]

This section examines the relevance and accuracy of the initial research conducted by the programme and the interventions designed as a result of this research. We also speak to the identification of the correct IPs in the support market to execute the interventions.

[168] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP), multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

Table 18: Key findings – EQ 4

EQ	4
Did the programme correctly identify the underlying causes of market failure during planning? How appropriate were the interventions to overcome these causes?	
Key findings	**RAG**[169]
The programme generally correctly identified demand- and supply-side market constraints that affect SHF productivity, market access and their resultant ability to generate income.	
The programme did not appear to prioritise constraints when developing and implementing interventions. Nor did the programme pair complementary demand- and supply-side constraints, undermining the potential additionality of interventions.	
In a small number of cases, the programme identified relevant market constraints but did not design appropriate interventions to overcome them (e.g. with regard to quality regulation in the dairy sector), or designed interventions around the wrong constraints (e.g. with regard to access to hybrid seeds in the vegetable sector).	

4.4.1 Identifying market constraints

For the most part, Samarth conducted high quality market research and correctly identified key market constraints in its target sectors.

M4P interventions should be designed to overcome specific market constraints. In each of the interventions selected for evaluation, with the exception of tourism (see Box 6), Samarth conducted extensive research including scoping studies[170] to identify potential market barriers constraints that negatively affected the productivity and profitability of poor farmers. The information and analysis within these studies was then translated into market strategies and sector guides[171] – in essence the blueprints for the design of programme interventions in each of the sectors.

Samarth identified a series of market constraints;[172] we have summarised these for the evaluated sectors in Table 19[173] and matched these with the interventions designed by the programme to overcome them (Table 20). We also separate them into supply- and demand-side constraints, to indicate whether these relate to making provision to farmers in the form of inputs and information or to providing services to farmers to improve their market access. Supply-side constraints tend to focus on the ability of value chain stakeholders to meet the (identified or unidentified) needs of farmers with products and services; demand-side constraints often revolve around the ability and opportunity of the market to access and make use of these products and services.

[169] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.
[170] E.g. Samarth. (19 October 2012). NMDP Dairy Sub-Sector: Analysis and Vision
[171] E.g. Samarth. (21 October 2015). Dairy Sector Guide and Samarth dairy sector strategies and business plans.
[172] For an explanation of how these constraints fit within the overall M4P model, see DFID. (February 2005). 'M4P: An introduction to the concept'. Discussion Paper prepared for ADB-DFID 'learning event', Manila.
[173] For more detailed information on the identified constraints and the matching programme interventions please see Annexes C, D, E and F for the evaluation overview within each sector.

In each of sectors, low farm-level[174] productivity[175] was identified as the significant constraint and cause of low incomes, and the initial programme research identified barriers both to the supply-side of the market for services and inputs, which could increase productivity, and to the demand-side of the market, which prevented or impaired SHF produce from reaching the market.

Limited access to inputs was a supply-side constraint identified in all four sectors, although it later emerged that this was not in fact a constraint in the vegetable sector,[176] with farmers reporting adequate access to high-value seeds. Similarly, in the ginger sector,[177] although access to herbicide was initially seen as a constraint, other associated constraints, including storage of chemicals and complexity of use, may have impeded uptake. Supply-side constraints common to all sectors relate to inadequate market access to information on market dynamics and productivity issues, as well as competition from cheaper and higher-quality imports, often from India.

An infrastructure-related restriction impacted on issues related to these supply-side constraints was last mile distribution of both information and inputs, which the programme identified as a constraint in all four evaluated sectors. In these cases, the input or service may be available in other, more densely populated, areas but unavailable in more rural, often poorer, areas. Reasons for this may be a combination of factors, including a lack of demand (often as a result of a lack of information) and a lack of commercially viable supply because of the infrastructure constraints.

Following from this lack of information, a lack of skills or an ability to apply this information was a supply-side constraint common to all four sectors. Knowledge of Good Agricultural Practice (GAP) or Good Manufacturing Practice (GMP) was identified as lack of information and skills in vegetables, ginger and dairy.

Demand-side market constraints that emerged included a lack of processing facilities or skills (dairy, ginger, vegetables and pigs) and a lack of storage facilities (dairy, ginger and vegetables). A demand constraint mentioned specifically in ginger and vegetables, but also a recognised constraint in the dairy sector, is inadequate smallholder access to markets as a result of lack of aggregation and transport services. This latter constraint is largely because of Nepal's geography and limited road transport and infrastructure.

> *'The main issue here in Nepalese context is that farmer number is very low and is scattered [sic]. They are living in typical geographical remote areas. The transaction cost in business is very high. So, the aggregation principle is very important in Nepalese context in every kind of business in agriculture'* (NGO staff member, 14 August 2018).

In addition to factors affecting productivity, access to markets was identified as a demand-side constraint in three markets: dairy, vegetables and ginger. This limitation echoed the supply-side constraint of last mile distribution, but in this instance the limitation was often the constraining first mile distribution as a result of infrastructural weaknesses.

A common demand-side constraint identified by the programme in the case of dairy and pork was low domestic consumption patterns for these products, although sources during the course of the evaluation reported steadily increasing demand for these products.[178] In the case of the pork

[174] For consistency, we use the term 'farm level' but at times this refers to household level, reflecting the lack of barriers between SHF enterprises and their households.
[175] DFID NMDP Business Case
[176] Annex F.3
[177] Annex E.3
[178] Annexes C.3 and D.3

sector, there appears to be conflicting evidence as to whether an extensive market existed prior to the Samarth intervention.[179]

Box 6: Identifying market constraints in the tourism sector

There is limited evidence that the programme conducted research and analysis into the causes of market failure/system underperformance of tourism branding. Additionality in this intervention was also undermined by the fact that the GHT brand (plural) was developed to replace an existing similar brand (which has continued in parallel to the programme). The programme does not present evidence of the nature and causes of underperformance of the existing system. In practice, the 'rebranding' exercise resulted in the creation of a duplicate brand rather than the replacement of one with another, possibly causing brand confusion among potential clients.

There is limited evidence that the programme conducted research into the causes of underperformance of standards for trails and no evidence to support the logic that certification will lead to improved perception of quality: trail building was subject to direct intervention by the programme, but programme documents do not make clear the extent of underperformance of this function, or the diagnostic relationship between any underperformance in trail management and the absence of standards. Without information on the nature of trail management underperformance and evidence linking this to standards, it is difficult to predict whether, and to what extent, trail quality will improve as a result of the presence of standards.

Similarly, there is no evidence presented to support the logic that certification will lead to improved perception of quality, as we have no evidence on the level of perception of quality existing prior to any certification, nor the reasons underlying perception of low quality.

[179] Annex D.3

Table 19: Summary of demand- and supply-side constraints in the evaluated sectors

Sector	Dairy	Ginger	Pigs	Vegetables
Demand-side constraints	Low level of household demand (below Asian average) Anticipated demand growth of 10% per annum supply growth of 4% Changing urban consumption patterns Request from the formal sector for more regulation in the informal sector	Lack of domestic post-harvest processing facilities Lack of skills for processing Lack of grading system for quality control Severe competition for cheaper Indian imports Lack of suitable aggregation services Lack of access to export markets	Lack of retail standards Lack of slaughter facilities	Access to markets Lack of suitable aggregation services Lack of post-harvest storage facilities
Supply-side constraints	Low level of SHF participation in the sector Low input/low output economy Lack of GMP knowledge	Access to information Access to inputs	Inadequate inputs into food and care Inefficient breeds Inadequate extension services	Access to quality seed Access to information Access to inputs

Table 20 : Sector constraints and matched Samarth interventions

Dairy	Identified constraints	Potential/implemented Interventions
Demand-side constraints	Low level of household demand (below Asian average)	
	Anticipated demand growth of 10% per annum supply growth of 4%	
	Changing urban consumption patterns	**Product development**
	Request from formal sector for more regulation in informal sector	
Supply-side constraints	Low level of SHF participation in sector (more than 5 times the level of active participation)	
	Low input/low output economy	**Forage**
	Lack of GMP knowledge	**Quality of raw milk/GMP training**
Ginger	**Identified constraints**	**Planned/implemented interventions**
Demand-side constraints	Lack of grading system for quality control	
	Severe competition for cheaper Indian imports	
	Lack of suitable aggregation services	**Low-cost storage**
	Lack of access to export markets	Trade and marketing, strengthening Nepal Ginger Producers and Traders Association

Dairy	Identified constraints	Potential/implemented Interventions
	Informal taxation during cross-district trade and export	
	Lack of domestic post-harvest processing facilities	**Post-harvest handling and processing,** packaging
	Lack of skills for processing	
Supply-side constraints	Access to information	
	Access to inputs	**Disease management**
Pigs	**Identified constraints**	**Planned/implemented interventions**
Demand-side constraints	Lack of retail standards	Public–private dialogue, trade and marketing
	Lack of slaughter facilities	Small and **micro slaughterhouse**, live pig market
Supply-side constraints	Inadequate inputs into food and care	
	Inefficient breeds	**Village hybrid pig seed stock, parent and grandparent pig seed stock** Improved pig breeding
	Inadequate extension services	Improved information and advice on pig husbandry
		Creating business enabling environment, **strengthening PEAN**
Vegetable s	**Identified constraints**	**Planned/implemented interventions**
Demand-side constraints	Access to markets	
	Lack of suitable aggregation services	**Aggregation**, sub-trader model, agribusiness
	Post-harvest handling and processing	Post-harvest loss
Supply-side constraints	Access to quality seed	**Seeds market**: marketing and promotion
	Access to information	**CPI 3:** CPI use information
	Access to inputs	CPI 1: marketing and promotion CPI 2: local production of bio-fungicide

4.4.2 Prioritising identified constraints

The programme did not prioritise constraints for implementation.

While the programme clearly conducted a lot of research, it is not clear from programme documentation whether and how the programme prioritised the constraints it identified. Nor is it clear how the designed interventions were prioritised for implementation, and, if this was done, what process and selection criteria were used for developing these prioritisations. It is also not clear how the programme identified and targeted IPs. While some of the identified partners showed interest in actively participating in implementing solutions, they severely lacked capacity to match their ambition. Other private sector partners had sufficient capacity but appeared less interested in partnering with the programme.

The programme had limited success in identifying suitable partners within the public sector. Given the considerable changes in the public sector as a result of the federalisation process towards the middle and end of implementation, it became increasingly difficult for the programme to identify the correct departments and retain institutional linkages and connections with public sector players.

4.4.3 Linking demand- and supply-side constraints

For the most part, the programme did not link supply and demand side constraints.

In designing its interventions, while the programme generally identified both supply- and demand-side constraints of market systems, it did not distinguish between these, as in Table 19 above. The importance of this is seen in the additionality of combining 'demand-side pull' and 'supply-side push' interventions, allowing the programme to work in both 'demand-pull' and 'supply-push' situations, facilitating involvement of stakeholders at multiple levels of the supply chain. It is in these instances that the programme failed to identify a lack of integration between different stakeholders in market systems. This speaks directly to one of the programme's main objectives: change business practices with an aim to improve income of poor farmers in Nepal.[180]

The programme did not appear to consider the possibility or strength of additionality in designing its interventions, or to integrate interventions holistically with a view to the longer, comprehensive value chain, with a few exceptions. As a result, while the interventions may have been relevant, their implementation in isolation meant that constraints in adjoining links of the value chain limited their success. In some sectors, there were multiple constraints where change to a single constraint resulted in a limited impact. Market systems, by their nature, are interlinked, and in some market systems changes in multiple areas may have resulted in magnified benefits. For example, changes in regulations and pricing regarding non-fat milk content may not result in improved SHF business practices but would affect SHF profitability, amplifying the benefits accruing to the SHF as a result of their changed GMP. Samarth did not appear to consider the value of additionality in these sectors, resulting in improved SHF business practice that was not financially rewarded as a result of regulatory constraints. This illustrates that there is value in an M4P programme looking at both demand-pull and supply-push constraints and trying to address these more comprehensively. Similar scenarios are apparent in the ginger (standards for ginger processing) and pork (standards for pork at retail level) market systems.

[180] Samarth logframe

This oversight of connecting interventions means there is an absence of holistic programme thinking to reflect on the whole of programme interventions achieving more than the sum of the individual interventions. In the context of a fragmented market system, this is a significant failing in overcoming interlocking constraints and delivering systemic change (see Section 5).

Box 7: Additionality in the tourism sector

Additionality in the tourism interventions is low given that the previous GHT brand (singular) did in fact contain some of the features (specifically: multiple trails) that the newer brand attempted to introduce. Furthermore, the original GHT (singular) website clearly markets the overall trail network, albeit under the name of the flagship long distance trail. It has 45 trails listed in Nepal with a 'find a trek' function and plentiful criteria for searching treks. (Based on a web archive search it seems the 'find a trek' function existed with 44 Nepali trails back in 2013. See https://web.archive.org/web/20130324070414/http://www.greathimalayatrail.com/findTrek.php.)

If this format of the GHT (singular) website represents how it has always been, the critique of that pre-existing GHT brand that underpinned the new branding intervention may be called into question, as may the buy-in of various stakeholders to the newer GHT (plural).

4.4.4 Designing interventions to address identified constraints

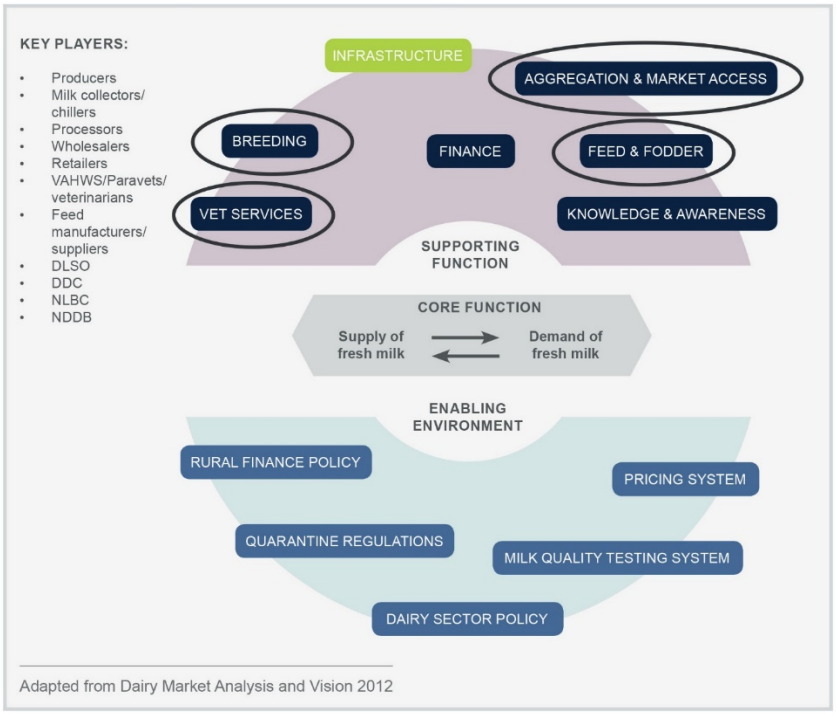
The programme usually designed interventions to address identified constraints, but there were gaps in addressing the 'right' constraints in some cases.

While usually thorough in the research it conducted to identify market constraints (if not in the prioritisation of these constraints) and successful in designing appropriate interventions to address a large number of them, the programme on occasion failed to design interventions to address the 'right' market constraints. There is some evidence, however, that it learned from these mistakes and adapted its strategy. Our evaluation identified a number of weaknesses in the design of the interventions. In the case of vegetables, the identified constraint of access to high quality vegetable seeds proved incorrect, with farmers reporting sufficient access to high quality seeds early during implementation. This was acknowledged by the programme and was later dropped as an intervention.

However, in the case of dairy, while the constraint of milk quality was correctly identified, and an intervention was designed to overcome this constraint, the programme failed to identify the link between this and the lack of incentives to produce high quality milk products as a result of inadequate milk quality standards. Regarding this dairy related-constraint, the programme continued to promote GMP training without taking cognisance of the regulatory constraint affecting their beneficiary farmers producing higher quality milk (see Figure 7). This may have negatively affected their targeted beneficiaries' household income by driving up costs (albeit marginal), without an associated increase in income.[181]

[181] See Section 4.2 for more discussion on this point.

Figure 7: Constraints in the dairy industry



The programme did, however, demonstrate some adaptability in responding to challenges to the relevance of its interventions.

- In response to identifying the vegetable seed-related constraint, the programme stopped this intervention and designed and implemented a crop protection intervention.
- In dairy, the programme learned from relevance shortcomings and, following the end of pilot review,[182] designed and implemented an intervention to register forage seeds, leading to increased incomes for forage seed farmers and increased access to forage for dairy farmers.[183]
- The storage constraints in ginger appeared to have very low uptake, calling into question the relevance of ginger pit storage in the eyes of the SHF. The programme abandoned the ginger pit storage initiative at the end of the programme's first phase.

4.4.5 Identifying enabling environment constraints

Samarth identified constraints in the enabling environment, but a key failing was that it generally failed to design and implement interventions to overcome these.

An M4P approach identifies not only constraints within the core and support market but also those within the enabling environment, which include informal rules and agreements as well as formal, legislated relations.

Samarth identified enabling environment constraints in dairy (including milk standards and pricing, as well as access to forage), pigs (lack of regulations around slaughterhouse standards and retail standards) and ginger (lack of post-production processing standards). In the vegetable sector, the programme made use of existing enabling guidelines to promote the use of IPM.

[182] Oakley, R. et al. (2014). Dairy End of Pilot Review.
[183] Annex C.3, Sector Review: Dairy

For the most part, however, the programme failed to implement interventions that addressed these constraints, or to design interventions addressing regulatory constraints, which would have directly affected its business practice interventions in the core and support markets.

4.4.6 Working with implementation partners

In the second phase of implementation, Samarth worked well with implementation partners and improved their working with public sector stakeholders.

An M4P programme does not deliver its own interventions and needs to identify the correct organisations and stakeholders with which to partner to implement its strategies to overcome the identified constraints. Part of this identification process is ensuring the correct partners have both the capacity and the correct incentive to implement the proposed solutions.[184] Working with the correct partners is the first step towards ensuring adaptability and ongoing implementation of the strategies to achieve scale. Further, working with and partnering with sector bodies, with private sector representatives and with regulatory authorities in the targeted sectors, is an important component of M4P interventions, ensuring the programme does not displace or crowd out existing players, to the detriment of the intervention's future sustainability and scale. For this reason, it is important to determine the extent to which Samarth identified and if possible worked with these stakeholders in the evaluated sectors.

Working with regulatory authorities, Samarth's level of working with and involving relevant regulatory stakeholders varied between the sectors. As identified, a lack of quality control standards or process standardisation (regulatory issue) was apparent as a constraint in the dairy, ginger and pork sectors. An influential, strong, sector-wide private sector body could address these demand-side constraints, or they could have been addressed by regulatory authorities, or by both government and private sector bodies working in cooperation. The programme did not pursue any of the advocacy-linked, demand-side constraints, although in the pork sector the government did introduce legislation guiding the operations of micro slaughterhouses. The programme also sought to build the capacity of private sector representation of the pork sector and its engagement with regulatory authorities through the establishment of PEAN.

Working with government agencies proved a difficult process, with officials often unfamiliar with private sector market dynamics and unaware of the M4P approach. In one notable area of success, a lack of access to quality forage seed was identified as a constraint in the dairy sector and, as a result of the cooperation between the programme, the private sector and the regulatory authorities, the registration of a forage seed variety was fast-tracked, using a public–private partnership model that had not been used before by the public sector partner: 'Prior to [Samarth] only nine varieties of forage seeds were registered and released, during [Samarth], two new varieties of forage seeds were registered while six varieties were released.'[185]

> *'First thing is that these government agencies, it's really difficult to make them understand about the approach itself. We also tried to work with the government agencies in the district level, and some of the government agencies adopted our approach as well, but, in many cases, these government agencies, they simply expect for everything in terms of money, in terms of informing them about everything, and the process is very bureaucratic, it takes a lot of time to take approval'* (KII, Samarth personnel, 16 March 2018).

[184] The Springfield Centre. (2015). *The operational guide for the Making Markets Work for the Poor (M4P) approach*. 2nd edition funded by SDC & DFID
[185] Samarth Project Completion Report 2018

The programme worked with both private sector companies and government agencies in developing and implementing training interventions for dairy cooperatives, working with NDDB in updating the quality assurance improving the GMP curriculum and its related training and in rolling out training to cooperatives.

Similarly, in the vegetable sector, the programme worked with private sector players to make use of, and promote, the government-mandated IPM best practice handbook.

Box 8: Working with tourism partners

NTB recognises that the GHT brand is not insufficiently targeted or 'attuned' to different markets, particularly the Chinese and Indian markets, where the focus is less on high altitude trekking. A trek function that in theory would enable trekkers to find shorter, easier treks does not appear to function effectively. This is possibly as a result of omitting NTB from the GHT re-design process.

4.4.7 Concluding comments

The programme generally correctly identified market constraints that impeded producers' access to markets but there were some gaps and the programme sometimes failed to target the 'right' constraints, especially in the enabling environment.

Some of the interventions were more successful than others in working with socially excluded groups. The programme subsequently developed interventions to overcome these identified constraints, although it appeared to have no mechanism for prioritising these, or identifying which constraints had an impact on the others. This meant that some interventions operated in isolation, limiting their impact.

As the programme progressed, other, possibly more pertinent, constraints or those more relevant to overcoming market development barriers were identified (such as storage in the vegetable market chain). The programme did not always appear to regularly engage with and develop interventions to speak to these, showing limited adaptability or limited opportunity to implement an intervention. In a few cases, it simply closed interventions, while in a limited number of cases it pivoted, refining the intervention to make it more pertinent.

The programme sought, to a certain extent, to work with regulatory authorities across all of its interventions, with varying degrees of success. However, to a large extent, the programme struggled to identify appropriate private and public sector stakeholders that displayed appropriate levels of both capacity and willingness with which to partner to implement design solutions.

4.5 Did the programme and its interventions deliver value for money? (EQ 8)

In Table 21 we present the key findings against the EQ and the strength of evidence for each of these findings. The strength of evidence is given a rating.

A programme's efficiency is determined by assessing the cost programme implementation in relation to its quantifiable outputs.[186] A number of factors – both internal to the programme and in

[186] Chianca, C. (March 2008). 'The OECD/DAC criteria for international development evaluations: An Assessment and ideas for improvement', *Journal of Multidisciplinary Evaluation* 5(9)

the external environment – affect programme efficiency. While a VfM[187] assessment often forms the bulk of an efficiency component of the evaluation, the values arrived at must be interpreted within the context of both the internal and the external environment.

Table 21: Key findings – EQ 8

EQ	8
To what extent do interventions and the programme deliver VfM?	
Key findings	**RAG[188]**
The four external events mentioned in the introduction to this report had a severe impact on the programme's efficiency.	
Internally, the programme was run efficiently with sufficient resources to make and implement decisions, although human resources were at times constrained	
The efficiency in terms of project spend increased over time and in line with other programmes of a similar nature.[189]	
The cost per beneficiary reached is generally lower than for other M4P programmes.	
The costs of reaching socially vulnerable groups, especially women in these groups, are higher than the average beneficiary cost.	

This section addresses the efficiency of the Samarth programme in its implementation to meet its objectives of increasing incomes for programme producers and their households.

Before offering a conclusion at the end of this section:

- We examine the internal operations of the programme to determine whether sufficient resources were allocated for the anticipated tasks.
- We examine the external environment in which the programme was operational, focusing on events and processes that affected programme efficiency.

Internal programme operations

The programme changed its internal structures substantially from its inception, mostly as a result of the programme redesign two years in: 'Initially, the team was very small, and we were backed up by the [implementing partners].'[190] In the initial design, most of the staff were hired by the IP, each of which made its own decisions regarding implementation within its sector. Samarth retained a small management oversight function. The programme redesign resulted in substantial increase in Samarth staff as the contracts of IPs were not renewed. Some of the staff from the IPs were offered sector specialist positions within the Samarth team, thus retaining some institutional and programme memory. While the change may have been led to more effective implementation over

[187] A VfM analysis is included as Annex G. This report was generated at the end of project implementation before ex-post income evaluation figures were available. There are therefore some discrepancies between the reported NAIC figures in this report and the VfM report.
[188] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.
[189] See VfM report in Annex G.
[190] KII, Samarth personnel 16 March 2018.

the longer term, the immediate effect was disorienting and resulted in a loss of institutional momentum.

> *'Initially, we were working through the IPs… but, suddenly, the structure changed and everything was brought to the programme itself, and we had all the control, and the interventions that we had to design was also made strict to the approach [sic]'* (KII, Samarth personnel, 16 March 2018).

Samarth team members described the institutional hierarchy within the redesigned Samarth programme as 'flat', in that, while individuals had different responsibilities, there was generally an open-door policy regarding any issue. This arrangement was appreciated by team members, and respondents reported actively contributing ideas and thoughts in strategic planning sessions even in areas that were not their speciality:

> *'[The] environment that was set up for challenging each other's theories and stuff like that was quite nice actually* (KII Samarth, personnel, 15 March 2018).

The evaluation team experienced this inclusive process of involving all team members in being exposed to meetings and organisational processes during the course of conducting the evaluation. Given that M4P was a new development methodology in Nepal, there was limited understanding of the approach in the initial stages. Some of the technical staff reported being trained through in-house workshops by senior, international programme staff.

In the course of the redesign, while the retention of technical staff from some of the implementing partners tended to preserve some institutional memory and allow for smoother implementation within sectors, almost all of the respondents spoke of the negative impact of numerous changes at project management level. The project appointed five project managers over a six-year period. While each individual was seen as a good manager and brought with them their own areas of specialisation, they needed to be brought up to speed regarding the programme, the challenges and the issues pertinent to implementation. And each brought with them their own understanding of the project, and how to work towards achieving the final programme goal, resulting in changes in the way decisions were made, or processes implemented, effectively slowing implementation.

All respondents said the programme provided adequate financial and physical resources (offices, transport, IT equipment, etc.) but a few said that, while they had technical expertise in some areas, they were often asked to provide support in areas where they had no experience. This, in their opinion, could have been improved through technical mentoring. They felt that adequate human resources were not always available to provide suitable design and support to the programme.

External environment factors

M4P programmes are known to take a number of years to reach a substantial level of return. The years spent in implementation often simply lay the foundations for this growth in later years. However, the time spent is core to these foundations. In the case of Samarth, this foundational work was interrupted by two sets of events – the redesign of the programme after two years, effectively forcing the organisations to restart the programme; and the earthquake and Indian trade embargo after four years, removing approximately twelve months of operational progress.

> *'Our programme stopped, I think, for almost one year because of [the earthquake]'* (KII, Samarth personnel, 15 March 2018).

Samarth was the first development programme in Nepal to follow an M4P approach. In addition, the approach it adopted for implementation was unique. Instead of starting from a foundational

approach of developing relationships with sectoral stakeholders in Nepal, the programme opted to work with NGOs and donor-driven implementers that had already established these relationships, had substantial technical expertise and were well known within the sectors.

The initial innovative approach was possibly meant to enable a running start, thus overcoming the longer lead times often needed in M4P programmes. Although bold in its design, it was not successful. IPs, in many cases long-established international NGOs, proved slow to adapt their own direct delivery approach, undermining the M4P methodology. After an initial two-year period, Samarth terminated the contracts with most of the IPs and hired in-house expertise to continue implementation. This decision had at least two consequences. The first was that initial traction gained in the first two years was mostly lost, forcing the programme to start again, and exacerbating the issue related to the M4P programme's long lead time to achieve scale. The was that the reputation of the programme was somewhat sullied, and it took a while for trust in Samarth to be reinstated (KII, ASP personnel). This is again an essential step in M4P programmes, where institutional (and ultimately commercial) relationships underpin intervention success.

Following the 2015 earthquake, DFID requested that some programme funds be redirected to assist the humanitarian and reconstruction efforts. In response, the programme developed the Agricultural Response Programme (ARP) focusing on the construction of seed and livestock storage sheds in the 14 earthquake-affected districts. In implementing the ARP, the programme attempted to follow an M4P approach,[191] but the impetus and focus of this intervention was to replace lost infrastructure as efficiently as possible to allow markets to recover, rather than to identify and remove barriers to support market or SHF or poor household market participation. Samarth sought to implement M4P principles through trade facilitation but, in the interests of time, critical delivery in the face of the emergency, also appeared to deliver directly to the community.

> *'Therefore, Samarth-NMDP supported the CSSFs [community groups] to develop and implement business plans, which included … potential coordination and collaboration avenues with government agencies, market actors (traders, exporters, importers) as well as cooperative unions.'*[192]

Shortly before the earthquake, DFID requested that the programme look to tourism as a possible sector intervention, in spite of this sector not being identified in the business plan as an area for intervention[193] after being initially scoped and rejected in the inception phase.[194] Following the earthquake, the programme was specifically requested to look to the reconstruction of infrastructure destroyed in the earthquake to improve access in the Manaslu conservation area in Gorkha. The intervention resulted in two cantilever bridges allowing isolated villages access to markets and other resources. Again, while this intervention will have assisted market-deprived villagers to access markets, the process was top-down-driven rather than market-facilitated.

> *'Many sectors have not had sufficient time to show truly systemic or large-scale results.'*[195]

As a result of these financial redeployments. Samarth changed from a £25m, five-year programme to a £15m, six-year programme. While a one-year no-cost extension was granted to try and accommodate programme changes as a result of the earthquake, the real cost to the programme

[191] It is not clear from programme documentation but the programme was most likely following a Markets in Crisis approach, using and engaging with present market dynamics to avoid longer-term market distortion. See Levine, S. (2017). 'Markets in crises: some implications for humanitarian action'.
[192] Samarth Project Completion Report 2018.
[193] DFID NMDP Business Case.
[194] KII, ASI personnel.
[195] Samarth. (2018). Close Out Report.

of the redesign, the earthquake, the redeployment of resources and the Indian trade blockade are seen in the ex-post efficiency figures.[196]

Further, the trade blockade adversely affected the programme's ability to implement interventions, and to support interventions, already in operation.

> *'Our private-sector players were more focused on something else rather than having to work with us at that time, so that delayed the entire project'* (KII, Samarth personnel, 15 March 2018).

Efficiency of specific sectors

Given data availability issues, it is not possible to calculate the cost of specific interventions, within sectors. The programme tracked and reported on IP-related costs and expenditures per intervention but did not include programme overheads and operational costs in this calculation.

Using the programme-provided costs of the sector interventions we have calculated the cost to reach each beneficiary in the four evaluated interventions (see Table 22). Dairy and vegetables proved the most efficient in terms of reach, with the latter being marginally more efficient. Pigs were a third less efficient and ginger was more than double the cost of the least expensive sector. Given the almost equitable access to women across all of the sectors, the cost of reaching women generally was on a par with the general cost. However, the cost of reaching socially vulnerable groups proved expensive, in some cases doubling the cost of the programme and in the case of dairy making the intervention five times more expensive. The cost of reaching women in these groups doubled the cost of the intervention again.

Table 22: Cost per beneficiary (£)

Indicator	Dairy	Ginger	Pigs	Vegetables
Spend to date (Managed Fund only)	834,645	641,120	926,045	576,999
Cost per beneficiary	20.00	51.00	33.00	18.00
Cost per Janjati	103.11	108.26	36.33	65.09
Cost per Madhesi	123.98		2,736.54	90.61
Cost per woman	20.21	50.88	32.84	18.03
Cost per Janjati woman	226.61	191.95	56.06	129.41
Cost per Madhesi woman	272.49		4,223.05	180.14

While the programme claimed that the programme cost resulted in a positive income change in four of these sectors (the exception is the ginger sector, where the programme reported that ginger cost 1.3 times more than the benefit), the ex-post evaluation figures reveal a different picture. The NAIC calculations reported in Section 4.2 show that none of the sector interventions except dairy resulted in a positive **attributable** household income change.

Concluding comments

In conclusion, when the programme realised that its original implementation strategy was not effectively implementing M4P principles, it changed its strategy to more closely follow the prescribed methodology. The team dynamics of the programme were good, with an inclusive and empowering decision-making structure, although the team leadership changed regularly, leading to some strategic drag in terms of programme guidance. A capable and enthusiastic implementation team that was able to brief new team leaders regarding their specific interventions and that built

[196] The figures reflected in this section are calculated based on the £15m expenditure.

trustworthy relationships with private and public sector partners to some extent countered this drag. More could have been done to support these technical personnel in understanding and applying M4P principles, and in developing the expertise in other sectors.

The cost of the programme's reach is generally lower than in other M4P programmes.[197] However, according to the evaluation's NAIC calculations, the efforts of the programme have resulted in no significant **attributable** household income increase, with the exception of dairy. Contributory factors affecting this lack of achievement include factors beyond the control of the programme (the earthquake and subsequent redeployment of resources, and the trade embargo) as well as the lost programme time as a result of the programme redesign, two years in.

Cost per beneficiary in terms of outreach varies considerably between interventions. Dairy and vegetables were the most cost-efficient, at £20 and £18 per beneficiary, respectively, while ginger was the most expensive market sector, costing £51 per beneficiary reached. The cost per beneficiary over the whole programme was estimated to be £61 per beneficiary reached. This places the programme in the mid range of other M4P programmes against which we compared the programme expenditure to benchmark VfM.[198]

However, when programme results are compared against attributable income generated by beneficiaries, Samarth ranks poorly. The only sector that can boast a positive attributable income change as a result of the programme intervention is the dairy sector, recording an approximate NPR 65,000 higher income per beneficiary than the comparison group. It is not possible to translate this figure into an return on investment comparison as a result of the programme not attributing overhead programmatic costs to different interventions.

4.6 Was the programme successful in harmonising the M4P approach with other programmes in a coordinated way? (EQ 9)

This section addresses EQ 9 and speaks to the extent to which the programme coordinated its approach with other donor led initiatives. The key findings are presented below in Table 23.

Table 23: Key findings – EQ 9

EQ	9
To what extent has the programme been successful in harmonising the M4P approach with other programmes in a coordinated way?	
Key findings	**RAG[199]**
In its initial stages the programme was not able to liaise with other Nepal-based M4P programmes, as Samarth itself was a trail blazer.	N/A
Ensuring that other programme might learn from the M4P approach and the Samarth experience, the programme established MDFN, which continues to run even after the closure of the programme.	M/A

[197] See VfM report in Annex G.
[198] Ibid.
[199] Dark Green: We have the highest level of confidence in these findings with evidence gathered from across numerous interventions, from multiple evaluation activities and from a wide range of data sources (e.g. combining evidence from multiple interventions and data sources in Module A (quantitative and QuIP) and multiple interventions and data sources in Module B (qualitative and secondary data)) and there is a high level of consistency across these multiple sources of evidence. Light Green: We have confidence in these findings with evidence gathered from across numerous data sources, but not as many as those contributing to Dark Green findings (e.g. combining evidence from across multiple interventions and data sources in Module B but not from other modules) and there is also a high level of consistency across these multiple sources of evidence. Amber: Findings are valid because there is a reasonable level of consistency from a range of evaluation sources but sources are often limited owing to data availability or budgetary and other

Given its status as the first M4P programme in Nepal, the programme has had limited opportunity to harmonise its approach with other programmes. Samarth was the first operational M4P programme in Nepal. This unique status impeded its ability to harmonise its approach with other programmes. While opportunities were taken up to learn from other M4P implementations (such as Katalyst in Bangladesh), the unique operating environment in Nepal meant that many more common approaches needed to be adapted and tweaked for successful implementation.

As a programme legacy, Samarth formed MDFN, which continues to operate even since the programme itself closed. This forum, which promotes M4P thinking, acted as a contact point for a number of donor programmes interested in applying market development thinking in Nepal. Samarth hosted it during the programme tenure, but since the programme closure it is now hosted by the Swiss Agency for Development Cooperation (SDC) and continues to act as a setting for exchange of ideas and M4P promotion.

constraints. Yellow: We have some confidence in these findings but as a result of limitations of data availability we were often not able to triangulate these findings as rigorously as we would have liked. Grey: Not applicable.

5 Is the M4P approach suitable to Nepal?

5.1 Introduction

Samarth was the first M4P programme implemented in Nepal. Simply by adopting this approach within the Nepali economic context, the programme was experimental. One of the evaluation questions that we set out to answer[200] is whether this approach is suitable in Nepal and what might be done to make it more applicable.

To answer this question, it is important to understand the mechanics and nuances of the M4P approach. While consecutive steps of a M4P approach are described above in section 2.2, we will first outline briefly the key components of the M4P approach and then, drawing on the successes, failures and challenges of Samarth (and illustrating with specific programme examples where appropriate), discuss whether this approach can work in Nepal.

In Table 24 we outline our key findings in relation to this evaluation question.

Table 24: Key findings – EQ 3

EQ	3
Given the country's political economic history, is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context?	
Key findings[201]	
Drawing on the experience of Samarth, we find that the M4P approach is suitable in Nepal for two key reasons: 1. Evidence from both phases of programme implementation suggests that producers are willing to adopt new production practices in order to realise increased revenue. 2. The programme was most successful when it adopted a more M4P approach in the second phase, especially where it brokered strategic partnerships, tackled constraints on both sides of the demand and supply equation (in particular harnessing demand-pull to drive changes) and tackled challenges in the enabling environment. However, the programme launched these types of intervention late and their implementation was further delayed by external shocks. As a result, the programme did not have sufficient time to build on these second phase successes.	
However, a series of context-specific characteristics make the application of an M4P approach in Nepal challenging. These include: 1. The 'thin' nature of support markets which makes the brokering of strategic partnerships difficult. 2. A lack of appropriate quality frameworks and enforcement of existing standards. 3. A political economy of direct government and non-government subsidies and active government engagement in production and exchange. 4. Fragmented value chains making it difficult for poor producers to enter formal markets.	

[200] Evaluation Question 3: Is the M4P approach suitable to Nepal? How could the M4P approach be adapted to better fit Nepal's context? The section answers the first sub question of EQ3. The recommendations section of this report answers the second sub question.

[201] Unlike the other EQs these key findings do not present a RAG rating as they are largely based on the interpretation of the findings in Section 4 and as such a rating of strength of evidence is not applicable.

5.2 Recap: what is the M4P approach?

The M4P or market systems approach is a means to achieve inclusive, sustainable economic growth, avoiding a process of direct delivery.[202] The approach seeks to "prime the pump" of market systems that may have broken, by leveraging the interests of public and private sector partners, and using market dynamics. The approach changes economic behaviour of stakeholders throughout the sector value chain and results in sustained change that is emulated through adjusting and copying the model, resulting in growth and expansion of the process, far beyond the original targeted audiences.

The six steps identified in section 2.2 to implement an M4P approach are performed within a specific framework, which identifies the core and support markets as well as the enabling environment. These three components make up the M4P "doughnut". An M4P intervention might target either a single component of the doughnut or any combination of the components, but at all times the final objective is to leave behind an improved, sustainable, market system that benefits players who were previously excluded.

5.3 The experience of Samarth suggests that the M4P approach can work in Nepal because…

5.3.1 Poor producers are willing to change practice

The ultimate goal of M4P programmes is to encourage poor producers in the core of the market to make changes to practice and to improve their revenue and income as a result. The experience of Samarth suggests that producers are willing to change practice in order to realise improvements in their revenue and, where the conditions allow, to sustain these changes. Both first and second phase interventions were successful in encouraging producers to change their practices. However, first phase interventions in particular were unable to sustain these changes and largely failed to translate these changes to practice into improvements in income: of the four first phase interventions for which the evaluation team collected quantitative survey data, only one recorded a positive average change in income for participating producers above similar non-intervention producers.

5.3.2 Where the programme adopted a more M4P design (and abandoned direct delivery) it created more sustainable change

The programme was most successful when it adopted a more thorough-going M4P approach in the second phase of programme implementation, especially where it brokered strategic partnerships, tackled constraints on both sides of the demand and supply equation (in particular harnessing demand-pull to drive changes) and addressed challenges in the enabling environment.
In the second phase of programme implementation, Samarth took a more strategic approach, often working with partners to further develop or scale-up existing, nascent models, rather than offering large but short-lived financial subsidies to conduct activities that were not a fundamental part of their business model (as in the case of agrovets conducting farm-level demonstrations in the vegetable sector).

In the dairy, vegetable and pig sectors, the second phase of the programme made a more deliberate and strategic choice of partner in the support market, typically selecting national-level

[202] Direct delivery would involve a donor directly subcontracting an entity to provide goods or services to poor beneficiaries, for free or at heavily subsidised prices.

processors which the programme helped to link to regional players. The focus of these interventions is different, shifting down the value chain to focus on the relationship between processors and/or aggregators at different levels, with the programme encouraging these players to invest their own resources to deepen these relationships.

As Sections 4.3.2 and 4.3.3 highlight, early indications suggest that the sustainability of the support market changes introduced by these second phase interventions is stronger than the first phase counterparts. Box 9 provides a more detailed example from the dairy sector.

Box 9: Example of more sustainable change in the second phase of implementation in the dairy sector[203]

An extract of the evidence map for this intervention is included, focusing on local processors

In the diary sector, the programme pivoted in the second phase to identify a strategic partner (Nepal Dairy) and link this partner to a regional processor of cheese (Sherpa Dairy). Underpinned by a commercial supply agreement, both organisations have deepened their relationship and continued to invest their own resources to increase the quality, volume and regularity of locally processed cheese supplied to the national processor. This, in turn, provides a continuing incentive on the part of the local processors to work with producers to improve the regularity and quality of milk supply.

A key feature of more strategic second phase interventions such as the dairy example described in Box 9 is that they addressed constraints on both sides of the demand and supply equation, forged strategic partnerships between market actors to open new markets for local producers, and harnessed the resulting demand 'pull' to drive sustainable changes in the core and support markets.

In addition, the programme was more effective where actively identified and addressed constraints in the enabling environment. Samarth took these initiatives in the second phase of implementation as part of its pivot to a more M4P design. Examples can be found in the pig, dairy and (to a lesser extent) vegetable sectors (the programme does not appear to have engaged with government as actively in the ginger sector). A number of examples are worth highlighting in particular:

[203] Refer to Annex C.3 for a full description of the evidence collected for this intervention.

- **Pig sector:** Samarth worked actively with government to facilitate the import of frozen semen as part of an initiative to improve breeding stock, beginning in the first phase of implementation. In the second phase, Samarth worked with government to build capacity and license private actors to offer fresh semen AI services, as well as to develop a voluntary code of conduct for slaughterhouses. Both of these interventions were more effective than earlier interventions in extending new services to producers in the core of the market. Samarth's work with government in the pig sector is significant, given that it had not received substantial attention in the past.[204]
- **Dairy sector:** Samarth worked with the government to register new forage seed varieties in the second phase of programme implementation and to build the capacity of public and private research centres to test and multiply this seed. A shortage of Nepal-registered seed varieties was identified in the first phase of implementation as a constraint to agrovets' access to forage seed, which undermined the effectiveness of first-phase interventions in the sector. In the second phase, Samarth's work with government led to a strategic shift in the enabling environment, improving the effectiveness of the later intervention in the sector.[205]

Together, these factors (willingness of producers in the core of the market to change practice and the relative success of more thorough-going M4P intervention designs in the second phase) suggest that the M4P programmes can work in Nepal and can produce sustainable change through a market systems approach. The programme launched these types of intervention late in its intervention cycle, however, and their implementation was further delayed by external shocks (the 2015 earthquake and the economic blockade by India in particular) and Samarth therefore did not have sufficient time to build on these second phase successes.

5.4 However, there are significant challenges in implementing the M4P approach related to key features of the context of Nepal…

At the same time, however, M4P programmes must be cognisant of their operating environment and aware of a series of context-specific characteristics which make the application of an M4P approach in Nepal challenging. These include:

a) The 'thin' nature of support markets which makes the brokering of strategic partnerships difficult
b) A lack of appropriate quality frameworks and enforcement of existing standards
c) A political economy of direct government and non-government subsidies and active government engagement in production and exchange
d) Fragmented value chains making it difficult for poor producers to enter formal markets.

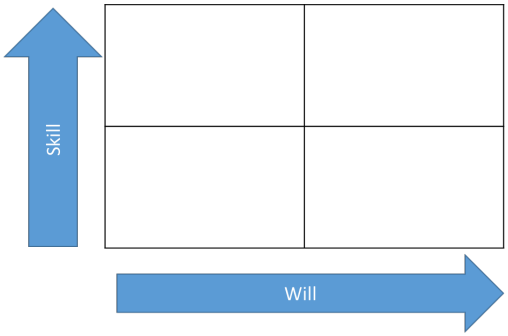
5.4.1 The 'thin' nature of support markets which makes the brokering of strategic partnerships difficult

An M4P programme relies heavily on both the capacity and willingness (see Box 10) of the actors (private sector, government and non-government). Thin markets, representing an absence of partners who are either capable and/or willing, are challenging environments for M4P programmes because of the dearth of appropriate players.

[204] Annex D.3
[205] Annex C.3.

Box 10: Will and skill matrix

The 'will-skill' framework can be used to identify types of M4P implementing partners and the level and intensity of support these will need in order to alter their behaviour and to implement interventions.



Source: Adapted from The Springfield Centre (2015)

Nepal has thin markets in many sectors, limiting the scope and depth of potential stakeholders with which M4P programmes can engage. While M4P programmes may pilot interventions in smaller areas, they seek to partner with stakeholders which have the potential to roll out a successful model over a larger geographic area, or in multiple subsections of a sector, achieving scale and sustainability. In Nepal, the experience of Samarth demonstrates that willing partners do exist, but they are typically few in number and often lack either the skill and/or the reach that an M4P programme would prefer.

In addition, the Nepali market place is rich in donor programmes and many private sector players are well versed in the "rules" of this environment, mainly focussed on direct delivery. Samarth's first phase of delivery, largely adopting key aspects of this approach including direct subsidies, worked with many stakeholders who had geographical reach but were largely unwilling to invest their own resources in new models and lacked necessary skills. When the M4P methodology was more rigorously applied in the second phase of implementation, the programme identified a series of strategic partners who had greater will and skill, but these partners became rarer and the interventions they implemented became 'narrower' in terms of their geographic reach and the number of poor producers they worked with. In addition, a risk associated with work in such thin market contexts is entrenching and deepening the commercial advantage of a small number of market actors, particularly where these same actors have received support from multiple donors.[206]

In such situations, M4P programmes may need to cast a broader net to identify strategic market actors and be willing to progressively build their will and skill over time. Where such opportunities are limited, M4P programmes may also need to look for opportunities to collaborate with other programmes and to offer time and resources to meet shared objectives.

5.4.2 Lack of appropriate quality frameworks and enforcement of existing standards

Quality standards (and the lack of appropriate national frameworks and enforcement) remain a key persistent constraint in the enabling environment and frequently emerge as a factor undermining intervention effectiveness in both the first and second phases of programme implementation. Even where interventions explicitly sought to tackle quality-related issues (and to introduce practices to upgrade the quality of production, such as improved manufacturing processes), the lack of quality standards, or their enforcement, undermined these efforts. Examples of such interventions can be found in three of the four sectors, particularly in the first phase of programme implementation.

[206] Samarth identified this in its end of pilot review of its vegetable interventions Samarth. (June 2014). 'Assessing the prospects for sustainable results from Samarth-NMDP pilot interventions in the vegetable sector'. End of Pilot Review.

The challenge for M4P programmes is that a lack of formal quality standards and limited enforcement negates efforts to increase returns for producers through product differentiation from improved quality and value addition. In Nepal, where producers across many sectors are reporting increasing costs (see Section 4 of this report), this results in farm income being squeezed over time and, partly as a consequence of these challenges, general labour patterns are changing, off-farm income is becoming increasingly important and producers are choosing in some cases to leave the sector altogether. This is particularly the case in the pig sector. M4P programmes can be relevant in this context, but interventions which tackle costs and offer the lowest barriers to entry are likely to be the most effective, especially for poor and vulnerable groups.

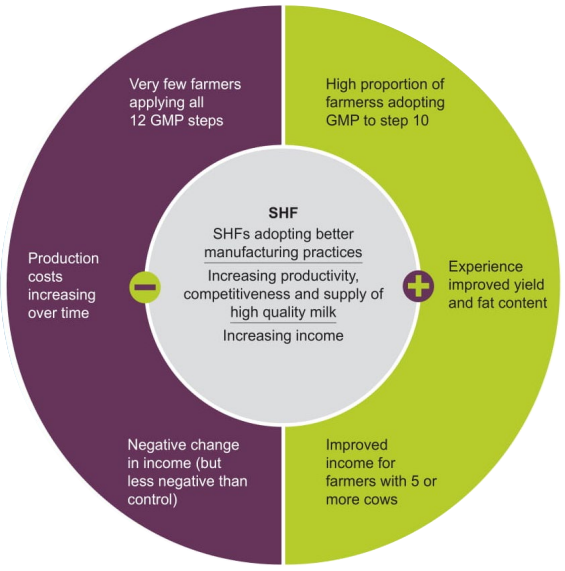
At the same time, evidence suggests that those interventions (in the second phase) which tackled demand and supply-side constraints simultaneously and provide demand-led incentives (a demand 'pull') to change practice and upgrade quality can be effective in driving practice changes in the core of the market – and provide benefits to producers even in the absence of sector-wide quality standards. An illustrative example from the dairy sector is provided in Box 11. While this provides additional evidence that an M4P approach can work in Nepal, these private sector-led initiatives were to a large extent working against the grain of a challenging enabling environment and would likely have been more effective if the enabling environment was more supportive.

Box 11: Example of the consequences of a lack of appropriate quality frameworks and enforcement in the dairy sector[207]

In the first phase of implementation, the raw milk supply chain intervention was successful in increasing productivity and in encouraging producers to introduce most, but not all, practice changes to improve the quality of raw milk (see Dairy Sector Household Survey Report annexed to this report for more information). However, evidence suggests that producers' adherence to recommended practice changes began to erode since the end of the intervention, as discussed further in the following (sustainability) section. A key issue is the lack of a supportive enabling environment. While the intervention correctly identified the poor quality of raw milk as a constraint to market access and attempted to tackle this by introducing input market-related practice changes, it did not tackle weak sector quality standards and poor enforcement (although Samarth did initially identify these constraints in its Sector Vision).

In the absence of an improved national framework for milk quality standards offering higher prices for improved milk quality, as well as better enforcement of existing standards based on fat and solid non-fat (SNF) content, producers do not have a strong financial incentive to continue practice changes (for which they incur a limited financial cost and time penalty). Indeed, intervention producers have experienced eroding incomes over time, although this appears to be a sector-wide problem and the position of intervention producers is not deteriorating as rapidly as non-intervention producers. Early on in implementation, one milk processor did initially express a willingness to offer higher prices for improved quality milk, which held the potential to boost producers' profit margins and income, but this practice was not sustained largely as a result of a lack of sector-wide quality standards, fragmentation in the milk supply chain and a lack of engagement on the part of the producer to engage in upgrading production quality. The producer sources milk from multiple small independent cooperatives, including those that began implementing quality improvements and those that did not, and thus could not guarantee the quality of supply and rescinded the offer of higher prices.

Enhanced quality standard of raw milk evidence map, focusing on smallholder farmers



The second phase dairy product diversification intervention (illustrated in Box 9) was able to overcome some of these challenges by forging strategic partnerships between market actors and generating a direct demand-driven financial incentive to correct issues of quality in milk supply and local processing, tied to guarantees of improved market access. This incentivised the local processor to work with producers to adopt improved practices to increase the quality of raw milk supply, with the local processor offering a modest improvement in milk price per litre to attract producers to supply regularly (although this is not recognised by national quality frameworks).

[207] Refer to Annex C.3 for a full description of the evidence collected for this intervention.

5.4.3 A political economy of subsidies and active government engagement in production and exchange

The Nepal development landscape is 'crowded' with a history of governmental and non-governmental institutions providing direct subsidy to support and core market actors. In the first phase of the programme, the programme mostly partnered with national and international NGOs to design and implement a series of pilot interventions. The programme made this decision to work through implementing partners partly as a means to launch pilot interventions quickly: by working through organisations with established networks it was thought the programme would shorten the time needed to reach a large number of smallholder producers. The programme thought that this strategy would circumvent the long lead times often associated with M4P programmes. However, as a consequence, in the first phase of implementation Samarth largely piloted intervention designs which incorporated key elements of the prevailing development landscape. These interventions were not particularly M4P in design and, crucially, continued to offer significant short term financial and non-financial subsidies to intervention participants. As Section 4 of this report highlights, these interventions typically had low sustainability. An illustrative example can be found in the vegetable sector in the first phase seed market and aggregation intervention which provided significant subsidies to partner agrovets and traders as illustrated in Box 12.

Box 12: Example limited sustainability as a result of significant subsidies provided in the vegetable sector[208]

Access to seed market and aggregation evidence map, focusing on agrovets and traders

The first phase seed market and aggregation intervention provided significant subsidy to agrovets and traders to establish the intervention model. Crucially, as an internal end of pilot review highlighted, a significant proportion of this subsidy was hidden. The intervention paid for 'market coordinators' to work directly with partner firms to implement the model, but this time was not counted as part of the financial contribution of Samarth. Worse, these coordinators took on core activities in partner firms, negatively impacting on the possible sustainability of the interventions. This is supported by the findings from the evaluation team's survey of market actors, which found that, while collection centres were still largely operating, these partner firms have not retained these market coordinators. Demonstrations (a key element in the model to support practice changes and address informational constraints in the input market) have also not been sustained.

In addition to a political economy of direct subsidy provided to market actors, in several sectors the government plays an active role not only in regulation but also in production and exchange. This

[208] Refer to Annex F.3 for a full description of the evidence collected for this intervention.

active role has had a bearing on a number of Samarth interventions across several sectors. In the forage sector, the government's role as a large buyer of forage seed appears to have supported the growth of emergent private sector seed multipliers, at least in the short term. At the same time, however, these multipliers compete with state producers and forage is typically provided by government (and other donors) at subsidised rates, which reduces farmers' willingness to pay for forage and associated services such as training. In the longer term, therefore, the government's role is likely to have a bearing on the sustainability and scale of the nascent private sector and may make it less likely for a vibrant and resilient private sector to emerge. In addition, as the government moves towards greater decentralisation as a result of its federalisation process, its centralised role in production and exchange is likely to falter, impeding any advances made during the Samarth programme, unless the private sector can step in to absorb this role.

Although Samarth tried to engage strategically with public sector actors to tackle enabling environment constraints in the second phase of implementation, these engagements were few in number. Samarth interventions encountered a number of regulatory legacy constraints which they were unable to overcome and this undermined intervention effectiveness, for instance with regard to a lack of appropriate quality standards and enforcement in several sectors and the presence of semi-official price controls (such as in the vegetable sector) which limits market differentiation and prevents wholesalers and producers from achieving higher returns from investments in processes of value-added process.

Faced with such challenges, M4P programmes should be acutely aware of their operating environment and should be realistic about where they are able to intervene within programme timeframes to make improvements in the enabling environment. Suitable entry points may include support to sector bodies to build their capacity to advocate for change (which Samarth tried for instance in the pig and forage sectors) and collaboration with existing initiatives, although both approaches will take time to bear fruit.

5.4.4 Fragmented value chains make it difficult for poor producers to enter formal markets

Producers face challenges in market access as a result of fragmented value chains. This is linked to, and often exacerbated by, the absence of quality standards, which provide barriers to access to more quality-sensitive, formal markets and a disincentive for poor producers to invest in improvement to production quality. In a number of first phase interventions in particular, the programme assumed that poor producers would access new, formal markets after making changes to their practices, but this did not happen. This is particularly true in the pig sector, but this observation is also relevant in the dairy, vegetable and ginger sectors. In later interventions, in taking a more thorough-going M4P approach and brokering strategic partnerships, the programme was more effective in improving supply chain coordination and opening opportunities for producers to access formal markets. The programme designed interventions to do this in the pig, dairy and vegetable sectors and attempted to do this in the ginger sector (although this intervention was not fully implemented before the close of the programme). An illustrative example is provided in Box 13 in the pig sector.

Box 13: Example of challenges encountered by pig producers in accessing formal markets, which reduces their incentives to change practices[209]

The first-phase village hybrid pig breeding intervention aimed to increase the quality of the breeding population and to encourage new husbandry practices on the part of smallholder producers. While the intervention was successful in encouraging the increased take-up of hybrid pigs, it was less successful in promoting other (costly) practice changes, including improvements to pig shelters. This is partly explained by challenges in market access on the part of smallholder producers. While the changes in practice did produce benefits for smallholder pig breeders and fatteners (in terms of increased weight and reduced fattening time; see the evaluation team's Pig Sector Household Survey Report annexed to this report for further information), they were not able to realise increased market access and increased demand for higher quality animals by selling into the formal value chain (as the intervention assumed would happen). Instead, most smallholder producers reported that they continued to follow traditional practices to sell pigs for local slaughter by informal butchers. The informal value chain exists largely in parallel to the formal value chain into which commercial pig breeders supply animals.

Given this experience, the later trade and marketing intervention in the pig sector aimed more explicitly to address issues of supply chain integration, market access and production quality. It worked to link a national-level processor to two local slaughterhouses to open access to a more quality-sensitive urban market. It also worked with the local slaughterhouses to increase their capacity and with DLS to develop a voluntary code of conduct to improve practices among slaughterhouses.

5.5 Concluding comments: is the M4P approach appropriate to Nepal?

In seeking to understand whether the M4P approach is appropriate to the context of Nepal, we have synthesised our findings from across the evaluated interventions to understand in detail the contextual factors which have supported or hindered the implementation of M4P interventions.

We reached the conclusion that the M4P approach can work in Nepal for two principal reasons:

1. Evidence from both phases of programme implementation suggests that producers are willing to adopt new production practices in order to realise increased revenue.
2. The programme was most successful when it adopted a more M4P approach in the second phase of programme implementation, especially where it brokered strategic partnerships, tackled constraints on both sides of the demand and supply equation (in particular harnessing demand-pull to drive changes) and tackled challenges in the enabling environment. The programme could have developed these interventions further but launched them late in the programme cycle and implementation was further delayed by external shocks.

At the same time, a series of context-specific support market and enabling environment challenges make the application of an M4P approach in Nepal difficult. M4P programmes need to be aware of these and adapt in order to be successful.

The 'thin' nature of support markets in Nepal provide few opportunities for strategic partnerships: in such situations, M4P programmes may need to cast a broader net to identify

[209] Refer to Annex D.3 for a full description of the evidence collected for this intervention.

strategic market actors and be willing to progressively build their will and skill over time. Where such opportunities are limited, M4P programmes may also need to look for opportunities to collaborate with other programmes and to offer time and resources to meet shared objectives.

A lack of appropriate quality frameworks and enforcement of existing standards: which negates efforts to increase returns for producers through product differentiation as a result of improved quality and value addition. Samarth's experience highlights that demand-led incentives (a demand 'pull') for improved product quality can be effective in driving practice changes and can offer benefits to producers even in the absence of sector-wide quality standards. However, such initiatives are working against the grain of a challenging enabling environment and would be more effective if the enabling environment is more supportive.

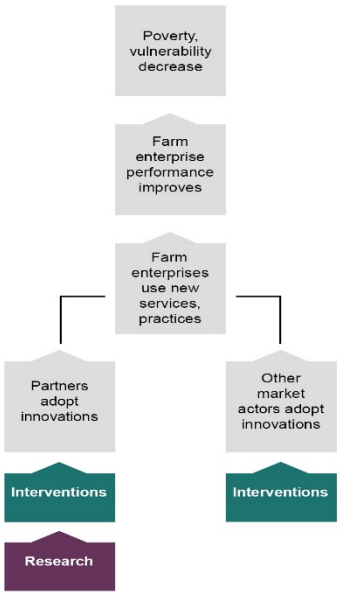
The political economy of direct government and non-government subsidies and active engagement in production and exchange: in Nepal this poses challenges in terms of reduced willingness on the part of private actors to invest in new practices and to pay for services. In the short term, government engagement in production and exchange can be harnessed to support nascent private sector actors, but in the longer-term competition from state actors and legacy policies such as price controls may make the emergence of a vibrant private sector less likely. Faced with such challenges, M4P programmes should be acutely aware of their operating environment and should be realistic about where they are able to intervene within programme timeframes to make improvements in the enabling environment. Suitable entry points may include support to sector bodies to build their capacity to advocate for change (which Samarth tried for instance in the pig and forage sectors) and collaboration with existing initiatives, although both approaches will take time to bear fruit.

Fragmented value chains make it difficult for poor producers to enter formal markets in Nepal: M4P programmes should not assume that poor producers will access new, formal markets after making changes to their practices. This highlights the importance of brokering strategic partnerships in order to improve supply chain coordination.

6 Conclusions: Reflections on the programme theory of change

This section returns to the programme TOC. We review the TOC in its totality to determine, in light of the proceeding evaluation findings and discussion, to what extent the programme theory and the assumptions on which it is based held true. We examine each link in the TOC in turn, starting with the programme's research into the underlying causes of market failure and the design of programme interventions.

Figure 8: Reassessing the programme TOC



Research: The TOC begins with research conducted by the programme; it assumes that the programme is successful in identifying the underlying causes of market failure and is then able to design appropriate interventions to overcome them. The evaluation finds that, for the most part, these assumptions held true; the programme conducted extensive and high-quality research into market constraints and, with only a few exceptions, was successful in identifying relevant constraints and designing appropriate interventions to deal with them (which also targeted the intended beneficiary groups). However, it did not prioritise these constraints or link demand- and supply-side constraints, and usually attempted to tackle constraints in isolation through separate interventions that were not linked. The programme missed opportunities to increase additionality and potentially to increase effectiveness by doing so (EQ 4).

Identification of partner market actors: The theory then assumes that the programme is able to identify support market actors with which to partner, who are willing to change practice to address the identified market constraints. The evaluation finds that this assumption also held true; the programme was able to identify suitable market actors, who introduced changes into the support market relevant to both input and output markets, although rarely at the same time (EQ 5). However, selection was severely affected by the limited range of potential partners, and this may have had an impact on programme effectiveness as well as possibly entrenching the competitive advantage of the selected IPs. Progress in introducing support market changes in the second phase of the programme was significantly delayed by external factors.

Intervention design: The models of private sector participation and the type of market actor varied over time, however. The first phase of programme implementation involved interventions that included a large number of market actors, although private sector participation was somewhat 'superficial' and was often motivated by heavy subsidy on the part of the programme. The second phase of the programme was characterised by interventions that involved fewer private sector actors, but the choice of partner was more 'strategic' and was built around deeper private sector commitment. The level of public sector engagement was also greater in the second phase of the programme than the first. The evaluation finds that the assumption that other market actors will adopt innovations introduced by programme partners (systemic change) did not hold true, although there is some nascent evidence that programme partners have continued to adapt the models they introduced and have plans to expand (EQ 5).

Use of new services and practices by farm enterprises: The theory then assumes that poor male and female farmers will change practice and will recognise the financial incentives (either decreased costs or increased income) to change their business practices and will adopt the improved services and inputs offered by programme partners. This will, in turn, lead to increases in productivity and sales (core market changes). The evaluation finds that this assumption did not always hold true; while farmers in many interventions did change practice and experienced improved productivity as a result, not all changes to practice were made, and those changes to practice that were made were not always sustained (EQs 5 & 8).

A number of underlying factors are found to be significant in explaining these patterns of outcomes. The evaluation finds that interventions that harnessed a clear demand-side 'pull' were those most effective in promoting support and core market changes to practice and show the greatest signs of sustaining them. Typically, these interventions were in the second phase of implementation. By contrast, interventions that failed to harness demand-side pull were less effective and, particularly those that offered significant subsidy in the first phase of implementation and operated in a 'donor-rich' environment, less sustainable. Nevertheless, a lack of quality standards undermined effectiveness in all cases and, while the programme identified product quality as an important constraint in several sectors, it did not work with public sector partners to improve the enabling environment in this area.

Farm enterprise performance: Finally, the theory states that changes to practice by farmers (and resulting productivity improvements) will translate into increased income. The evaluation finds that this assumption for the most part did not hold true (EQ 1). Only in the dairy sector did increased income from the economic activity supported by the programme translate into a net income gain for programme participants; and only in dairy do we see evidence of increased economic resilience: intervention dairy farmers appear to have recovered from external shocks more quickly than non-intervention farmers, but there is no evidence of this in other sectors (EQ 2). In the vegetable sector, farmers also experienced increased income but not as much as non-intervention farmers, suggesting that external factors were more influential in this sector than programme interventions. In the pig and ginger sectors, both intervention and non-intervention farmers experienced a reduction in income during the lifetime of the programme.

The evaluation finds that a number of factors are significant in explaining the disappointing impact of the programme on incomes. Alongside external factors (especially the 2015 earthquake and the Indian economic blockade), the most important factors are increased input costs, fragmented value chains and lack of quality standards. These factors interacted to erode farmers' margins (which in some cases was an unintended consequence of the programme) while at the same time preventing farmers from off-setting these costs by increasing market access (particularly into formal, urban markets) and earning greater returns from investments in value addition.

7 Lessons learned and recommendations

The lessons learned and associated recommendations from the evaluation are grouped in this section by theme. Footnote references link these lessons back to the appropriate findings and discussion sections. We suggest the relevant audience for each recommendation, including donors, M4P programme implementers and the wider M4P community. Some recommendations may also be appropriate for public sector agencies responsible for developing agriculture, but, given the fluidity of the current public sector structure in Nepal, these specific agencies are not specifically identified. Recommendations are prioritised on a three-point scale, with those marked '1' seen as the most important.

Lesson 1: Key challenges exist in the enabling environment in Nepal

Key constraints exist in the enabling environment in Nepal including a lack of appropriate quality frameworks and enforcement and legacy policies such as price controls, which place a significant constraint on efforts to increase profitability through value addition.[210] This is especially significant in a context in which input costs are increasing, squeezing income and contributing to changing labour patterns, including encouraging producers to leave more capital-intensive sectors (such as pigs)[211]. Farmers who can achieve increased scale (such as dairy farmers with five or more animals) can more easily offset any increased costs related to improved productivity and increase their incomes.[212]

Experience from Samarth suggests effectiveness can be enhanced by harnessing the active role of the government in regulation, but care should be taken to select the right partners with a sufficient combination of 'will and skill', which may be difficult. In this context, strategies for exit and sustainability need to be carefully considered, particularly where they involve handing over new initiatives to government agencies to manage and sustain, as this is not likely to be feasible where financial resources are limited and these institutions do not have the right combination of 'will and skill'. Programmes need to be acutely aware of limitations of the enabling environment and the likely impact on planned interventions. Critical reflection on these issues may result in a reprioritisation or interventions or a reallocation of resources, focussing on those interventions most favourable to M4P at that time.

The recent move towards federalisation within Nepal may present an opportunity for M4P practitioners to build the capacity of local public sector stakeholders to understand the private sector mind-set and the public sector's role and mandate in supporting private sector growth. At the same time, where the central government plays an active role in production and regulation, there is a danger that pre-existing efforts to work with central government to address enabling environment constraints will be undermined as part of this process.

Recommendation	Audience	Priority
1. Public sector stakeholders should be engaged as soon as possible by M4P programmes and, where necessary, be mentored to act within their mandated areas of responsibility and exposed to capacity-building regarding private sector-led economic growth.	Donors; Programme implementers; public sector	1

[210] Section 5.4.2
[211] Section 4.2.2
[212] Section 4.3.

2. Programmes should identify suitable entry points in the enabling environment to address key challenges, be realistic about what change can be accomplished in programme timeframes and actively collaborate with existing donor and public-sector initiatives.	Programme implementers; donors	2
3. Programmes should carefully examine the enabling environment of planned interventions and prioritise interventions accordingly.	Programme implementers; wider M4P community	1

Lesson 2: Operating in "thin", donor-rich environments (such as Nepal) is challenging

The private sector in Nepal is "thin" in a number of categories – capacity, opportunity and additional skill – making the identification of strategic partners difficult. [213] Further, the players in this thin market are used to working in a donor rich environment, creating expectations such as the offer of direct delivery and subsidised service[214]. This makes implementation of M4P in Nepal a challenge.

In its initial phase of implementation, Samarth operated with established IPs to quickly reach to beneficiary farmers offering significant financial support to private sector actors. This approach aimed to quickly increase the programme's reach but it proved ineffective as a result of differences in thinking regarding M4P implementation.[215] Heavy subsidy, with limited reciprocal commitment from private sector partners, undermines sustainability. While the programme reviewed and changed its implementation strategy in its second phase, this resulted in a serious delay to the programme gaining traction in its numerous interventions.

Recommendation	Audience	Priority
4. Donors and implementers should recognise the challenges faced in thin markets and donor rich environments regarding scale and sustainability and set targets and timeframes accordingly.	Donors; implementers; and wider M4P community	2
5. Implementers may need cast a broader net to identify strategic partners in the public and private sectors and be willing to build their understanding and skill over time. Where opportunities are limited, programmes may need to explore opportunities to collaborate with other programmes. At the same time, donors should be prepared to recognise shared contributions to results.	Donors; and implementers	2

Lesson 3: Harnessing demand-side market 'pull' is a key driver of intervention effectiveness

Interventions that harness demand-side pull, and tackle both input and output market-focused constraints simultaneously, are frequently more effective in encouraging sustainable practice

[213] Section 4.5.2
[214] Section 5.4.3
[215] See Section 4.5.1

changes[216] and offer producers opportunities to increase revenue (and potentially profitability), even in the face of enabling environment constraints[217].

Recommendation	Audience	Priority
6. Prioritise market systems where there is a clear demand-pull as well as supply-push to overcome a constraint. These appear have a greater chance of sustainability.	Programme designers and implementers; IPs	1

Lesson 4: Smallholder producers are more likely to adopt and sustain practice changes with low barriers to entry and may switch farming activities during programme implementation

Interventions with relatively low barriers to entry are more readily adopted and are more likely to be sustained. Changes in the support market that are implemented sustainably are more likely to embed behaviour changes among poor producers, resulting in ongoing improvements in productivity and (potentially) increased incomes. Those interventions with higher barriers to entry, or where the return on investment may take longer to be realised (such as livestock and seasonal crops), appear to take longer to embed behaviour changes.[218]

Recommendation	Audience	Priority
7. Programme implementers should design interventions with low barriers to entry, which may increase SHF participation.	Programme implementers; IPs	1

Lesson 5: Fragmented market systems result in additional challenges and require coordinated solutions to address them

Fragmented market systems, where there is no clear flow of input, product or market information, impose additional constraints for producers, including market access constraints for smallholder or informal producers. This reduces intervention effectiveness.[219] This is especially true where disparate interventions do not tackle identified constraints in a coordinated fashion. Programme implementers should not assume that poor producers will be able to access formal markets as a result of making recommended changes to practice[220].

Recommendation	Audience	Priority
8. Programme implementers should view fragmented market systems with caution when designing interventions, recognising that stand alone, isolated interventions are less likely to achieve SHF market integration.	Programme designers	2
9. Programme implementers should design interventions with a holistic view of market systems, and prioritise interventions that forge strategic partnerships between market actors to enhance supply chain coordination.	Programme designers and implementers	1

[216] Sections 4.3.2 & 4.3.3
[217] Section 5.3.2
[218] Section 4.3
[219] Section 4.4.3
[220] Section 5.4.4

Lesson 6: The development of a Gender Equity and Social Inclusion Strategy is not sufficient to ensure women's inclusion and empowerment

Samarth had an ambitious target of ensuring that 50% of its beneficiaries were women; a target it mostly exceeded. However, reaching marginalised individuals and ensuring that they benefit to the same extent as other target beneficiaries are different. Women farmers benefitted less in terms of increased incomes than their male counterparts, and it might have been beyond Samarth's scope to ensure equitable growth, the issue was never raised[221]. It is not sufficient for programmes to include gender or marginalised groups within their targets and not develop specific interventions or intervention components geared to meet these groups' needs. Inclusion, rather than simply reach, of marginalised groups requires a specific strategy but also specific action points and activities.

Recommendation	Audience	Priority
10. Link gender and social inclusion strategies to implementation objectives with practical guidelines.	Programme designers and implementers	2
11. Identify barriers which might affect marginalised peoples' participation, to ensure that implementation is correctly targeting these groups.	Programme designers and implementers	2

Lesson 7: Nepal's geography results in particular implementation challenges

Nepal is beset with poor infrastructure and its geography in the mid-hills prevents easy transport and communication between villages. For M4P interventions to achieve scale, stakeholders need to be able to observe the results of interventions before deciding whether to reject them, adopt them or make changes to them for their own specific purposes. Geographical and infrastructural constraints prevented SHF being able to observe changes in their neighbours' farming practice, restricting the opportunity to copy the intervention, affecting IPs' prospects to achieve scale.[222]

Recommendation	Audience	Priority
12. M4P programmes should take cognisance of both informal and formal communication channels utilised by SHF, which may impact on copying and therefore greater reach.	Programme implementers; IPs; wider M4P community	2
13. Interventions that are dependent on copying to achieve scale must take these restrictions into consideration and plan accordingly.	Programme implementers; IPs	3

[221] Section 4.2.2
[222] Sections 4.4.1 & 4.4.3

Lesson 8: Programmes should develop a more detailed theories of change which takes into account contextual and external factors, as well as programme assumptions.

Instead of developing a TOC specific to the Nepali context, Samarth opted to use a generic M4P TOC. While a generic TOC may be used as a foundational starting point, programmes need to be aware of their specific context, and importantly, record this context for ongoing institutional and broader learning. The context of Nepal changed significantly during the programme lifespan. Using a TOC as a reflective and planning tool, might have been a useful exercise for the programme, to learn early lessons.

Recommendation	Audience	Priority
14. Develop a context specific TOC, taking contextual and external factors into account, and regularly use this as a reflective tool.	Donors, Programme designers, wider M4P community	1

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Annex A Terms of Reference

https://tinyurl.com/y3z73ofb

Annex B Inception Report

https://tinyurl.com/y6hmghcn

Annex C Dairy

C.1 Household quantitative reports

https://tinyurl.com/y5qsxht8

C.2 QuIP

https://tinyurl.com/y2rfntyg

C.3 Dairy sector review

https://tinyurl.com/y5ncomv4

Annex D Pigs

D.1 Household quantitative reports

https://tinyurl.com/y2p9lsbh

D.2 QuIP

https://tinyurl.com/y58395e5

D.3 Pig sector review

https://tinyurl.com/y5cczp3e

Annex E Ginger

E.1 Household quantitative reports

https://tinyurl.com/yycypkmw

E.2 QuIP

https://tinyurl.com/y6asfmgg

E.3 Ginger sector review

https://tinyurl.com/y24t4qwo

Annex F Vegetables

F.1 Household quantitative reports

https://tinyurl.com/yxfofn9r

F.2 QuIP

https://tinyurl.com/y2glgtl8

F.3 Vegetables sector review

https://tinyurl.com/y4uszgxp

Annex G VfM

https://tinyurl.com/y4qk6xk5

Annex H Evaluation Framework

https://tinyurl.com/y4me87ce

Annex I Tourism Sector Evaluation

https://tinyurl.com/y638w4l7

Annex J Use and Influence Plan

https://tinyurl.com/yy6apq58

Annex K List of Interviewees for Module B

https://tinyurl.com/y2wtasok

Annex L Sector-specific Evaluation Questions for Module B

https://tinyurl.com/y32aq2qc

Annex M Evaluation Methodology

https://tinyurl.com/yydml6bf