



Building Bridges, Supporting Livelihoods



Myanmar School Milk Nutrition Programme Review

Academic Year 2012/13

Smallholder Dairy Development Programme in Bangladesh, Myanmar and Thailand

Asian milk for health and prosperity

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UN OPERATIONAL RATES OF EXCHANGE
(April 2013)

Myanmar: USD 1.0 = MMK 882

ABBREVIATIONS AND ACRONYMS

ADN	Asia Dairy Network
APHCA	Animal Production and Health Commission for Asia and the Pacific
AWPB	Annual work plan and budget
ASEAN	Association of South East Asia Nations
BPS	Basic Primary School
CFC	Common Fund for Commodities
DTC	Dairy Training Centre
FAO	Food and Agriculture Organization of the United Nations
FAOMM	FAO Representation in Myanmar
GAP	Good Agricultural Practice
GMPF	Grameen Motsho and Pashusampad Foundation (Bengali language) or Grameen Fisheries and Livestock Foundation (in English)
GHP	Good Hygienic Practice
GMP	Good Manufacturing Practice
GOM	Government of Myanmar
JLTA	Japanese Livestock Technology Association
LBVD	Livestock and Veterinary Department (Myanmar)
MLF	Myanmar Livestock Federation
MMEP	Milk Marketing Enhancement Programme
MOE	Ministry of Education
MOH	Ministry of Health
MOLF	Ministry of Livestock and Fisheries (Myanmar)
MPEP	Milk Production Enhancement Programme
MPO	Milk Producers' Organisation
MTR	Mid-term Review
M&E	Monitoring and Evaluation
NDTF	National Dairy Task Force
NPC	National Project Coordinator
PEA	Project Executing Agency
PMU	Project Management Unit
PSU	Project Support Unit
PY	Project Year
RAP	Regional Office for Asia and the Pacific (FAO)
RDC	Regional Dairy Centre
RDTF	Regional Dairy Task Force
RPC	Regional Project Coordinator
SDDP	Smallholder Dairy Development Programme
SMNP	School Milk Nutrition Programme
SMNS	School Milk Nutrition Scheme
TOT	Training of Trainers
TCP	Technical Cooperation Programme (FAO)
USD	United States Dollar

Myanmar
SDDP Intervention milksheds



Mandalay Division; Nay Pyi Taw Council; Yangon Division

Myanmar Pilot School Milk Nutrition Programme (2012)



EXECUTIVE SUMMARY

*The Smallholder Dairy Development Programme (SDDP) in Bangladesh, Myanmar and Thailand seeks to achieve its overall development objective of improving the bargaining power and sustainable livelihood of smallholder milk producers by focussing on a complete **cow to consumer** development approach. In partnership with the Myanmar Livestock Federation and Government, the SDDP pilot School Milk Nutrition Programme started in Mandalay and Yangon during the 2012/13 academic year. Two thousand primary school children were targeted. The SDDP Schemes use local milk and are the first in the country. Over 5,000 children participated in 25 Schemes financed by private sector sponsors, including individual philanthropists, milk processors and other business concerns, far exceeding the target. These impressive results build to over 19,000 children when, towards the end of the school year, a further Scheme funded by an international milk packaging company through the Ministry of Livestock and Fisheries using long life milk imported from Thailand was successfully piloted in Nay Pyi Taw. The Myanmar Livestock Federation has set up a Foundation Trust to channel funding to the Programme.*

As part of the on-going SDDP Mid-Term Evaluation process the SDDP commissioned a review of the School Milk Nutrition Programme in Myanmar. The review found compelling evidence of good progress in the key benchmark areas of: (i) strong community participation and ownership; (ii) committed public-private funding partnerships; and (iii) robust institutional and implementation arrangements, including setting up the School Milk Foundation Trust by the Myanmar Livestock Federation. At the mid-point, the SDDP is on track to deliver its school milk outputs and objectives in Myanmar, but more time is needed before it is ready to be scaled across the entire country. Proposals are made to consolidate these gains ensuring the Programme reaches full sustainability. The proposals include:

- *identifying opportunities for scaling;*
- *an SDDP School Milk Nutrition Programme proposal for the 2013/14 academic year, including resource mobilisation;*
- *enhanced dairy technology transfer and training;*
- *setting key performance indicators and documenting best practice guidelines;*
- *enhancing planning and coordination;*
- *next steps for the SDDP School Milk Nutrition Programme in Myanmar, including a strategic action plan proposal (contained in an addendum to this report).*

*The early successes have already attracted new partners and funding to the Programme, including a soft loan to the MLF School Milk Foundation Trust Fund from the Mandalay Regional Government amounting to MMK 100 million (USD113,000) to scale the SDDP interventions for the coming 2013/14 academic year. By this time there would be enough evidence-based experience to justify further scaling; and to include the linking of smallholder dairy development to school feeding programmes in the dairy policy and strategic investment plan due to be scoped by the Ministry of Livestock and Fisheries towards the end of 2013. By then Myanmar will be on the way to realising its commitment to the Chiang Mai Declaration: **a glass of Asian milk every day for every Asian child.***

*The Myanmar Livestock Federation and Myanmar Dairy Association received the World Food Day Award for 2012 for the School Milk Nutrition Programme. Readers wishing to find out more about the SDDP and the pilot Programme are directed to appendix D of this report and **facebook** pages at:*

www.facebook.com/pages/School-Milk-and-Dairy-Development-in-Myanmar/283194048458284

1. INTRODUCTION

1.1 SDDP background

1. The Smallholder Dairy Development Programme in Bangladesh, Myanmar and Thailand commenced in February 2011 with launch meetings in Bangkok and Chiang Mai, Thailand. These were followed by high-level launches in Bangladesh and Myanmar. The programme comprises three regional dairy development interventions, hereinafter jointly referred to as the SDDP, implemented together in the three countries. The SDDP is the first intervention under the Strategy and Investment Plan for Smallholder Dairy Development in Asia – *a glass of Asian milk for every Asia child* - developed by APHCA member countries in 2008, supported by CFC (Common Fund for Commodities) and FAO¹. The three projects are:

- *Smallholder Dairy Development in Bangladesh, Myanmar and Thailand: Improving the Bargaining Power and Sustainable Livelihoods through the Enhancement of Productivity and Market Access in Dairy (MTF/RAS/CFC/259)* – the core CFC funded project.
- *Enhancing Milk Consumption and Livelihoods through School Milk Programmes Linked to Smallholder Dairy Operations (TCP/RAS/3309D)* – the supporting FAO funded TCP project.
- A third supporting intervention *Asia Dairy Network - the way forward* – is funded by APHCA (Animal Production and Health Commission for the Asia-Pacific Region).

2. While the standard blueprints for CFC and FAO projects are slightly different, the overarching aims of the three SDDP projects are designed to reinforce each other as indicated in the expected outputs matrix summarised in appendix C and the SDDP implementation framework in table 1 below. The four-year core CFC project, and hence the SDDP, has three overlapping implementation phases, also as indicated in table 1. The two-year FAO TCP project is scheduled for completion at the end of 2013; the Asia Dairy Network (ADN) continues throughout.

3. The FAO Regional Office for Asia-Pacific (RAP) is the SDDP project executing agency (PEA); the Japan Livestock Technology Association (JLTA) is the Supervisory Body (SB).

Table 1: SDDP implementation framework (2012/13)

Quarter	Year 1 (2011-12)				Year 2 (2012-13)				Year 3 (2013-14)				Year 4 (2014-15)			
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1
Phasing:																
Inception																
Main implementation																
Exit																
Timeframes:																
Core - MTF/RAS/CFC/259																
Supporting - TCP/RAS/3309 (D)																
Supporting - Asia Dairy Network																

1.2 Review purpose

4. The SDDP is at the mid-point. As part of mandatory CFC and FAO M&E an internal Mid-Term Review (MTR) is being conducted by the Regional Dairy Task Force, including CFC, FAO and JLTA, at its third annual meeting in Chiang Mai from 23 to 26 April, 2013. The findings and

¹ Strategy and Investment Plan for Smallholder Dairy Development in Asia – *a glass of Asian milk every day for every Asian child*. CFC, APHCA, FAO, Bangkok 2008 (ISBN 978-92-5-106043-8)

recommendations of the MTR will inform SDDP implementation for the remaining period up to February 2015 and will be used to guide the SDDP Annual Workplan and Budget for project year 3 (APWB-PY3).

5. To inform the MTR and AWPB-PY3 processes, a review of the pilot school milk nutrition activities of the SDDP is being conducted. The review focuses on the FAO TCP school milk nutrition project and Myanmar where rapid progress has been made. The tasks to be undertaken for the review are set out below.

- (1) Review the consultative processes, current status and mechanisms of implementation of TCP/RAS/3309 (D) and MTF/RAS/259/CFC specially as it relates to school milk program pilots in Bangladesh, Myanmar and Thailand
- (2) Review the mechanisms and modalities of school milk pilots in Bangladesh and Myanmar and identify opportunities and mechanisms of scaling up the pilot initiatives
- (3) Visit Myanmar to interview stakeholders and collate, organize, manage, analyse all information related to school milk activities in Myanmar
- (4) Identify opportunities for scaling up and scaling out the on-going activities under smallholder dairy development project
- (5) Prepare a comprehensive report on school milk activities in Bangladesh and Myanmar identifying opportunities, challenges, constraints and way forward
- (6) Prepare and submit a strategy and action plan document (including a strategy and action plan for resource mobilization) for scaling up of school milk program in Myanmar taking into account government and other stakeholder perspectives and donor priorities.

6. During briefings by the SDDP FAO PEA regional team based at Bangkok it was decided to remove Bangladesh from the review. The review thus centres on Myanmar.

7. The review team travelled to all three SDDP milksheds in Myanmar: (i) Mandalay Division (including Pyin oo Lwin); (ii) Nay Phi Taw Council; and (iii) Yangon Division over the period 03 to 16 April taking the opportunity to interact with a representative cross section of SDDP and pilot School Milk Nutrition (SMN) Programme stakeholders. The original report contained the work done, finding and conclusions of the review team² in one consolidated report. The preliminary review findings were shared and discussed at the MTR meeting³ and the FAO Country Office in Myanmar (FAOMM) prior to departure. The review programme is summarised in appendix A.

8. Following submission of the first draft report to the PEA it was decided that as per the above TOR, two reports should be prepared. This revised report thus addresses TORs (1) to (5). An addendum document separate document deals with item (6) – the strategy and action plan for the 2013/14 academic year.

1.3 Acknowledgement

9. The review team benefited greatly from assistance provided in Myanmar by the Livestock Breeding and Veterinary Department (LBVD) of the Ministry of Livestock and Fisheries (MOLF), the Myanmar Livestock Federation (MLF) and FAOMM. Special appreciation is accorded to the teachers, children and parents, to milk producers and processors, and to all involved in the pilot SMN Programme - their collective enthusiasm and commitment to the individual Schemes is plain to see. Special thanks also to the FAO Regional Project Coordinator and RAP Lead Technical Officer who guided the mission. A partial list of people consulted is given in appendix B.

² Brian Dugdill, International Dairy Adviser/FAO Short-term Dairy Development Adviser
Khin Hlaing, National Consultant;

Yang Naing Soe, National Project Coordinator and Deputy Director LBVD, joined the team in Nay Pyi Taw.

³ See draft SDDP Mid Term Review Report, FAO, May 2013 and SDDP Myanmar School Milk Nutrition Programme Review. PowerPoint Presentation prepared for debriefing meetings with LBVD/MOLF, FAOMM and FAORAP. Brian Dugdill and Khin Hlaing (April 2013).

2. REVIEW

2.1 Methodology

10. The review team used a participatory, three-step evidence gathering approach comprising:

- (1) **Desk review:** of school milk literature and SDDP reports and documents prepared by the Regional and Myanmar teams, including the baseline survey (see appendix F for documents consulted).
- (2) **Field visits and key informant semi-structured interviews:** with a representative cross-section of school milk beneficiaries, partners and stakeholders, including:
 - participating schools, children, parents, teachers, school boards/welfare committees and local authorities;
 - central, regional and local officials representing: MOLF/LBVD, Ministry of Education (MOE) Education Department and Ministry of Health (MOH) Health Department and elected village administrations;
 - Myanmar Livestock Federation (MLF);
 - milk processors and the Myanmar Dairy Association (MDA);
 - SMN Programme public and private sector sponsors.
- (3) **Analysis and report writing:** including cross-validation of data and information.

11. The National Coordinator organised two well-attended high level review meetings at MDF/MDA headquarters in Yangon (on 03 April 2013) and in Mandalay (on 05 April 2013). The meeting agendas included, inter alia:

- Introductions and purpose of SMN Programme review
- Pilot SMN Programme progress and results to date
- Learnings and improvements for next academic year (2013/14)
- Scaling opportunities
- Outline plans for the 2013/14 academic year.

12. Thirty four participants attended, including heads and teachers from the pilot SMN Schemes, school milk-supplier donors and other sponsors, and government (see appendix B). A further 15 field review meetings with similar agendas were held with local school teachers, parents and children, village leaders and local staff from MOLF/LBVD, MOE and MOH and milk processors and sponsors. Though it was the long inter-school year vacation, some 300 children also enthusiastically participated. Sites visited and meetings included, inter alia:

(1) Yangon

- Yangon SMN Scheme stakeholder meeting
- MLF/MDA meeting with potential Nestle sponsor
- Walco Dairy

(2) Mandalay

- LBVD and MLF/MDA
- Mandalay school milk stakeholder meeting
- Smallholder dairy farms
- Seywa Buddhist Monastery Basic |Primary School (BPS)
- Amarapura-Ywathit BPS
- No.30 BPS
- Double Cow Dairy, Seywa
- Aye Aye Chan Dairy
- Unison Dairy

(3) Pyin oo Lwin

- Stakeholder meeting
- Nursery School
- State Middle School
- December Dairy and farm

(4) Nay Pyi Taw

- Thuzanakaryi Monastery School (Telefood School Garden project)
- No. 138 Aung Chan Tha BPS (Telefood School Garden project)
- Nay Pyi Taw Dairy Training Centres (President's Integrated Farm)
- Mya Seinn Yaung Dairy Cooperative (President's Integrated Farm)
- Tetra Pak sponsor for Nay Phi Taw SMN Scheme for 2013/14 school year

2.2 Why school milk in Myanmar?

13. Milk is one of the most nutritionally complete foods available. It is naturally a good provider of a whole range of nutrients essential to growth, development and maintenance of the human body and contains no artificial preservatives or colourings. Quite a small quantity provides a good proportion of the daily nutrient requirements for all age groups. Milk is nutrition-rich relative to its energy content and can especially make a major contribution to child nutrition and household food security. A daily 200 ml glass of milk provides a five year old with:

- 21 percent of protein requirements;
- 8 percent calories;
- vital micro-nutrients.

14. Many health and stunting problems associated with child under-nutrition can be tackled through simple low-cost fortification of milk and dairy products tailored to local needs, e.g. iron (helps prevent anaemia); iodine (for proper thyroid function); extra Vitamin A (for the immune system), etc. In addition to its contribution to nutrient intake, increased milk consumption has also been linked to reducing the risk of numerous health problems such as osteoporosis, cancer, cardiovascular disease, type 2 diabetes and obesity. Consequently milk makes a significant contribution to the human diet through provision of macro-nutrients, vitamins and minerals. More information on the contribution of milk to the height of children is given in appendix D-4.

15. While precise information about the extent and severity of child malnutrition in Myanmar is not easy to obtain, it is reported that for children under five, 23 percent are underweight for age and 35 percent are short or stunted⁴. There is also limited information about primary school enrolment, but it is understood to be high. On the other hand there is a raft of anecdotal and empirical evidence that regular access to safe milk benefit primary school children (appendix F).

16. Milk consumption is low in Bangladesh and Myanmar at 18 kg and 16 kg per capita per year respectively, less than the average for East and South-East Asia (22 kg), and significantly less than developing countries as a whole (50 kg) and developed countries (208 kg). Until quite recently milk consumption was also very low in Thailand at just 3 kg. per capita. It was only when the Government took the decision in the 1980s to promote consumption through school milk schemes that consumption took off. Today, some 30 years later, consumption in Thailand that was much lower than the two other SDDP countries, has reached over 30 kg. as a new generation of consumers, the children of the school programme, is now accustomed to, and purchases processed milk and dairy products; and consumes cheese used in western-style pizza and burger fast food restaurants.

17. This is the SDDP rationale behind the longer term stimulation of milk consumption through piloting local SMN Schemes and, at the same time, stimulating local milk production and processing to provide affordable and safe milk and dairy products.

⁴ State of the World's Children, UNICEF 2012.

18. As indicated in appendix C, the SDDP has four components:
- Component 1: Milk production enhancement programme
 - Component 2: Milk marketing enhancement programme
 - Component 3: Capacity building and dissemination programme
 - Component 4: Project management and M&E

19. The FAO School Milk TCP project supports the milk marketing component of the SDDP. Its outcome, expected outputs, implementation strategy and targets are summarised in the box below.

Box
SDDP School Milk Nutrition Programme and Targets

FAO TCP/RAS/3307(D) Project Summary

Title: Enhancing nutrition and livelihoods through school milk programmes linked to smallholder dairy operations in Bangladesh, Myanmar and Thailand

Impact: Enhance consumption of dairy products for school children while assuring and increasing livelihoods of local dairy producers and interested local entrepreneurs.

Expected outcome: Governments applying strategies that foster smallholder dairy development through linking producers to local markets by means of the establishment of school milk programmes in rural areas.

Expected outputs:

1. Strengthened skills and capacity to develop, implement and monitor intervention strategies developed which are tailored to introduce or expand school milk programmes in targeted rural areas.
2. Enhanced support for smallholder dairy development at the national and local level through development/ amendment of school milk programme
3. Increased dairy production by smallholders in locations where school milk programmes are implemented.
4. Increased appreciation in targeted rural communities for locally produced dairy through organized and effective small and medium enterprises (SMEs).

Implementation Strategy and Methodology

- To achieve the above outcome, the project will cover three countries spanning diverse production, market and institutional environments.
- This will facilitate drawing lessons and strategies on how to effectively link the development of school milk programmes in different environments to smallholder dairy production.
- Approaches to the development of guidelines/"best practices" of effective and sustainable implementation of school milk programmes necessitates a process of analysis, review of regional experiences which provides guidance on the design of a targeted strategy taking into account local resources and specific conditions.
- The successful and fully documented implementation of targeted school milk programmes in rural areas will serve an input into 1) further development of local programmes, and 2) serve as input into the proposed FAO and Common Fund for Commodities' (CFC) initiative on smallholder dairy development in these countries.

CFC/FIG/MDP/19 Project

Supporting Component 2: Milk marketing enhancement programme

Activity 2.5: School milk

Introduce and/or upgrade school milk schemes, based on sound nutrition and healthy eating, in selected primary schools in each country using milk supplied by local smallholder milk producers and milk processing enterprises; one pilots scheme each in the Sirajganj and Pabna Districts of Bangladesh, the Mandalay and Yangon Divisions of Myanmar and the Chiang Mai and Lampoon Provinces of Thailand.

Stakeholders and Target Beneficiaries

- Primary school children targets: Bangladesh: 2,000; Myanmar: 2,000; Thailand: 2,000. Total = 6,000
- Smallholder dairy farming families: Bangladesh: 3,000; Myanmar: 1,500; Thailand: 500. Total = 5,000
- Policy makers, dairy industry associations, donors other development partners

2.3 Design and implementation

20. Supported by the FAO Region Project Coordinator and the Lead Technical Officer the Myanmar country team used an inclusive process to design, launch and implement the pilot SMNP. This included:

Step 1: SMN Programme Design:

- Bangladesh-Thailand SMN Programme study⁵
- Organisation and funding
- Stakeholder consultation
- Monitoring and evaluation

Step 2: SMN Programme Launch:

- Stakeholder participation, awareness and training
- High profile launch

Step 3: SMN Programme Implementation:

- Management
- Recording and reporting
- Review

21. Bangladesh and Thailand were selected for the lesson-learning study because a limited SMN Scheme had been implemented in Bangladesh about a decade ago. The scheme was based on imported, recombined UHT milk⁵ rather than local milk and was not sustained after the concerned international NGO and development agency pulled out. The SDDP thus commissioned a study to learn from the Bangladesh experience as well as from the renowned Thailand programme⁶. The comprehensive study identified a number of key factors important to the design and implementation of SMN Programmes; in effect the best practice steps summarised above.

22. The study findings were used to inform the scoping and implementation of the pilot SDDP SMN Programme in Myanmar. These are accorded prominence in the first two SDDP AWPBs – table 2. Feedback from the baseline survey⁷ informed the selection of local farmers and processors the SDDP would work with in the two milksheds of Mandalay and Yangon. This in turn determined the location of the pilot schools in the SMN Schemes in the two milksheds supported by local processors in Mandalay and Yangon.

Table 2: School Milk Scheme activities planned for PY1 & PY2 (Mar. 2011-Feb. 2013)

Component/Activity		Responsible	Status
2.	Milk marketing enhancement programme		
2.5	Launch/upgrade school milk schemes		
2.5.1	Design of pilot	FAO/PMU	Done
2.5.2	Implementation of pilot	PMU	Done
2.5.3	Expert training at Chiang Mai	PMU	Done
2.5.4	School milk day celebration	PMU	Done

23. Due to their central roles in promoting and sustaining livestock and dairying in Myanmar the Myanmar Livestock Federation and Myanmar Dairy Association took on the supervision of the SMN Programme supported by the LBVD and the SDDP team. MLF and MDA were actively involved in designing, planning and implementing the pilot SMN Programme, which started in August 2012, shortly after the start of the 2012/13 academic year.

⁵ Milk manufactured from butter oil and skimmed milk powder provided by the donor.

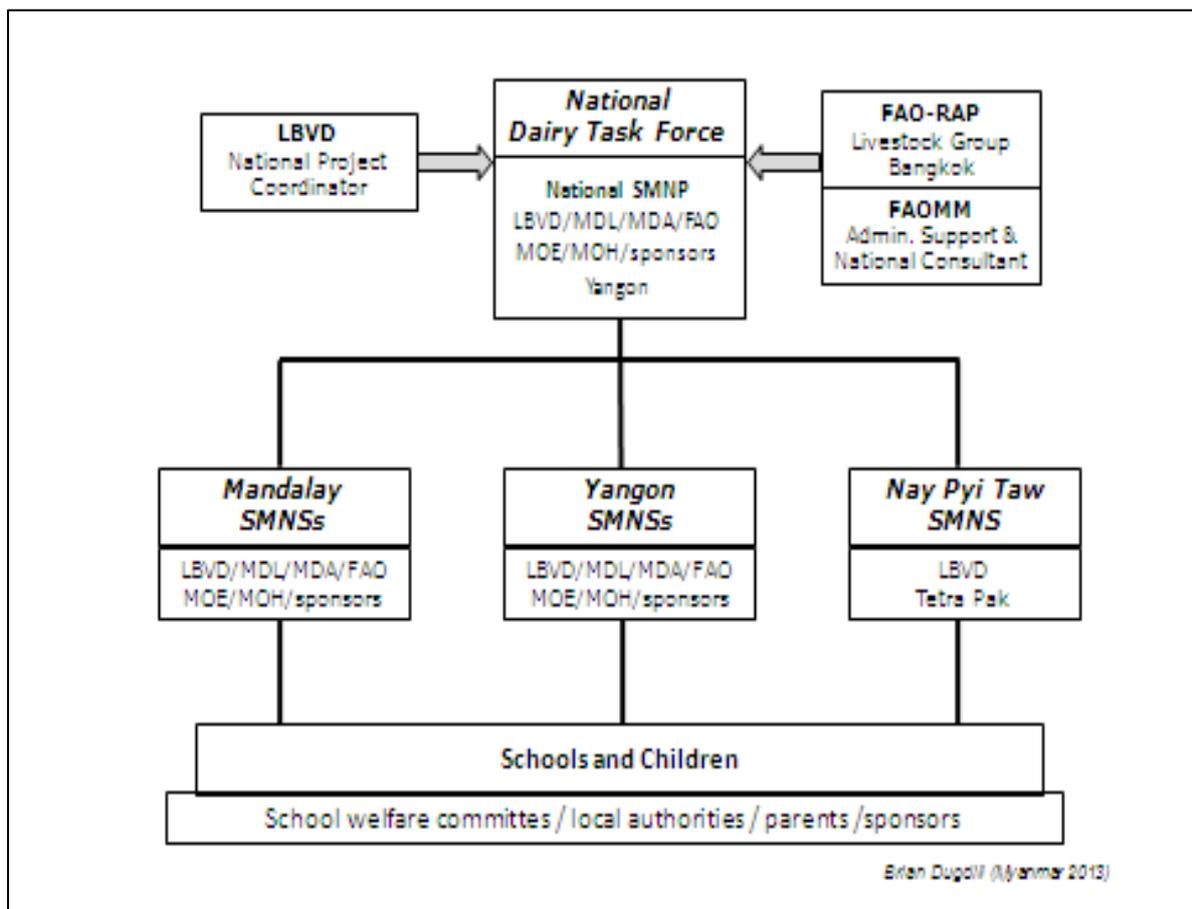
⁶ Linking school milk with smallholder dairy development: Thai experience and design considerations for a pilot project in Bangladesh. SDDP, Mohammad Jabbar and Vinod Ahuja, (November 2011).

⁷ SDDP Myanmar Baseline Survey (2012).

24. At the request of the Government, and with the agreement of CFC, the Nay Pyi Taw milkshed was added to the SDDP during the inception phase in 2011. Recognising the rapid progress in piloting the Programme, an additional Scheme was piloted in 2013 in Nay Pyi Taw for the last few weeks of the school year. This scheme was organised and managed by LBVD in partnership with the Tetra Laval dairy equipment and packaging supply company. This company is contracted to build a large UHT milk processing facility in Nay Pyi Taw that is expected to be commissioned in late 2013. For the new milk processing company the scheme will introduce consumers to long life milk in cartons and facilitate the launch of these products on to the Myanmar market. It is not known if the plant will start up on fresh local milk or milk made from imported commodities.

25. The pilot phase of the Programme in Myanmar adopted the organisational structure shown in figure 1. At school level school boards/welfare committees comprising teachers, parents, local village leaders and education officials managed the schemes supported by local LBVD and MOH officials. In Mandalay and Yangon regions the MLF/MDA led the campaigns supported by LBVD, MOE and MOH staff. The SDDP National Dairy Task Force and MLF/MDA oversaw the entire SMN Programme. The launch of the programme was supported at the highest level with the President and Minister of Livestock and Fisheries leading widely publicised launch events. The SDDP Regional and Myanmar teams provided the necessary start up support including awareness training and advocacy materials for each Scheme (see appendix D).

Fig. 1: Pilot Myanmar School Programme organisational framework



26. As planned in the SDDP AWPBs for PY1 and PY2, SMN Programme activities focussed on mobilising the SDDP, including awareness and launch meetings. While a more detailed account of progress is given in the above-mentioned SDDP Project Progress Report, key pilot school milk nutrition programme milestones in Myanmar are summarised in table 3 below.

Table 3: Myanmar SMN Programme highlights (2012/13 school year)

Year	Month	Event
2011	Feb-Nov	SDDP and SMNP mobilisation and planning of participating SMNSs
	Aug-Nov	Thailand-Bangladesh SMNP study
2012	Jan-May	May: SDDP PEA team use Bgd-Tha study to inform design and implementation mechanisms of pilot SMNP/SMNSs
	Jul	Mandalay SMNS started (13 schools/1,888 children)
	Aug	Yangon SMNS started (15 school/3,441 children)
	Sep	First time World Milk Day celebrated in Mya; successful high level, widely publicised & multi-stakeholder involvement (30,000 children)
2013	Jan	Tetra Pak/LBVD pilot scheme launched (14,000 children)
	Feb	Study tour to Thailand
	Apr	SMNP review mission
	Apr	Mandalay Regional Gov. announces MMR100m SMNS loan
	Apr	Nestle plans SMNS with MLF/MDA
	Apr	2 FAO Telefood project school to join NPT SMNS
	Apr	LBVD and Tetra Pak announce expansion of pilot SMNS for 2013/14 school year (45,000 children)

27. A more detailed breakdown of the schools, numbers of students and the sponsors is provided for the Mandalay and Yangon schemes in table 4 and 5 below.

Table 4: Mandalay milkshed schools and sponsors (2012/13 school year)

Sr. No.	Township	Basic Primary School (BPS)	No. of Students	Sponsors	Value MMK*
1.	Chanayethasan	No. 30 BPS	200	UNISON Dairy	1,200,000
2.	Patheingyi	No. 62 BPS	227	SHWE OH & MLF	1,362,000
3.		Thayetkai BPS	179	AYE AYE CHAN Dairy	1,074,000
4.	Pyin Oo Lwin	Htonebo BPS	106	DECEMBER Dairy	876,000
5.		Konebaw BPS	40		
6.	Amarapura	Ywathit BPS	110	Dr. Myint U/U Myint Wai	660,000
7.	Tada-U	Sonkone BPS	150	MDIL Dairy	900,000
8.	Sintkai	Seywa Buddhist BPS	76	Double Cow	846,000
9.		Myoma BPS	65		
10.	Kyauk Se	Hmaingpan BPS	274	Mya Bu Yin Dairy	1,644,000
11.	Meikhtila	Htamonkan BPS	162	MLF, Mandalay	972,000
12.	Pyin Oo Lwin	Nursery School	69	MLF, PyinOoLwin	276,000
13.		State Middle School	230		920,000
	Sub Total	13	1,888	10	10,730,000
	Mandalay Region	Foundation Funds			5,000,000
	Total				15,730,000 18,080 US \$

* Milk valued at MMK 120 per 200 ml sachet.

Table 5: Yangon milkshed schools and sponsors (2012/13 school year)

Sr. No.	Township	Basic Primary School (BPS)	No. of Students	Sponsors	Value MMK*
1.	Mingalardon	No. 3 BPS	295	Ah Man Dairy	1,475,000
2.		No. 8 BPS	345	WALCO/Dr. Mya Han	3,450,000
3.		No. 15 BPS	180	Shwe Pazon Dairy	900,000
4.		No. 16 BPS	530	Silvery Pearl Dairy	2,650,000
5.		No. 18 BPS	105	Essential me Co., Ltd.	525,000
6.		No. 25 BPS	110	Friesland Campina Foremost	3,200,000
7.		No. 37 BPS	235		
8.		Monastery Education	655		
9.	Hlegu	Yemon (South) BPS	51	Funhwa Dairy	515,000
10.		Kyaungsu BPS	52		
11.		Nyaunghnapin Zone 3	90	Green Land Dairy	450,000
12.	Teikkyi	Teikkyikone BPS	104	U Saw Hla Win	520,000
13.		Bamar gonhnyintan BPS	83	Dr. Kyaw San Aung	415,000
14.	Shwepyitha	No. 20 BPS	146	Super Cow Dairy	730,000
15.	N. Okkalarpa	Monastery Education	360	Double Cow	1,800,000
	Sub Total	15	3,341	11	16,630,000
	Yangon Region	Foundation fund			8,100,000
	Total				24,730,000 28425 US \$

* Milk valued at MMK 220 per 200 ml sachet.

28. In total over 5,000 children from 28 schools participated in the pilot programme, far exceeding the SDDP 2,000 target. Twenty one sponsors including milk processors, other companies and individuals contributed MMK 40.5 million (USD 45,400) to the Programme. Some 184,000 litres of locally produced pasteurise milk was delivered by the Programme, representing a significant income boost for processors and, in turn smallholder milk producers. These impressive results increase to over 19,000 children when the Nay Pyi Taw children are included (table 6).

Table 6: Myanmar SMN Programme summary (2012/13 school year)

Scheme	Region	Days/ Wk	Milk	No Schools	No of Children	Value (MMK million)*
MDL/SDDP	Mandalay	1-2	Local	13	1,888	15.73
MDL/SDDP	Yangon	1-2	Local	12	3,441	24.73
Sub-total				25	5,329	40.46
Target					2,000	
Achieved					266%	
LBVD/TP	Nay Pyi Taw	5	Import	30	14,000	14.0
Total				55	19,329	54.46
						USD64,000

* Milk valued at MMK 220 per 200 ml sachet.

2.4 Main findings and learnings

29. The key findings and learnings of the review include:

- The pilots in Mandalay and Yangon were the first School Milk Schemes in Myanmar, thus the SDDP baseline survey was not able to collect data on child physical or nutritional status. Hence the review centred largely on anecdotal feedback as far as nutrition is concerned.
- The pilot activities were implemented according to plan and well-exceeded target (tables 3 to 6). The SMN Programme pilot is making relatively small seed funding go a long way and has mobilised significant extra resources.
- A common-sense, participatory process for the SMN Programme tailored to each Scheme is used to design the implementation mechanisms. The SDDP regional and Myanmar teams used inventive approaches to test a number of sustainable delivery models. As indicated in tables 5 and 6 these may be sponsored and funded by: (i) milk processors; (ii) private companies; (iii) philanthropic individuals, usually with links to the local community; (iv) dairy industry input and services providers; and more recently (v) regional governments.
- LBVD and MLF are satisfied that the SMN Programme supports:
 - the twin pillars of national food security policy, namely: (i) poverty alleviation; and (ii) rural development;
 - the current livestock strategy and plans that aim to promote: (i) smallholder farming; and (ii) commercial farming systems; (iii) integrated farming, including nutrient recycling
 - the fostering of enhanced food security, safety and nutrition.
- LBVD, MLF and dairy processors recognise the SMN Programme as a driver of milk consumption in the future as well as vital for immediate nutrition. They believe more experience is needed before the programme should be replicated across the country.
- The focus is rightly on primary school students for optimum effect, as there is limited pre-schooling. For children milk needs to be wholesome and safe. The SDDP cow-consumer (and child) dairy value chain package approach demonstrates modern milk processing and quality control technologies and equipment for sustainability. The involved milk processors also want access to modern equipment and technologies and processes to increase capacity and efficiency. The technical skills and knowhow gaps are legion. Many processing dairies are start-ups with owners and staff eagerly awaiting demonstration equipment and training from the SDDP. (The FAO International Dairy Technologist is due on mission to support these activities in May). Processors will repay 75 percent of the value of the equipment received to the MLF Foundation Trust Fund (see below).
- The importance of advocacy: the pilot SMN Programme ran an effective advocacy and promotion campaign that has received much media attention. This included many high profile regional and school launches and a World School Milk Day event in September 2012 in which over 30,000 children participated. The MLF/MDA received the Myanmar World Food Day award in 2012 for the Programme (see fig. 2).

Fig. 2: World Food Day Award for the SMNP



- The SMN Programme organisation and management structure is working well at school, regional and national level (fig. 1). MLF and LBVD now need to place the Programme on a regular business footing by consolidating all the Schemes in one Programme with a medium-term strategic plan and annual business plan.
- The fact that the SDDP National Consultant is also Secretary General of the MLF and MDA greatly facilitated Programme implementation.
- The MLF has already taken steps along this path by establishing its School Milk Foundation Trust to receive and manage sponsorship funding. The Trust will also receive funds from reimbursements from processors receiving dairy value chain demonstration equipment and supplies from the SDDP such as hygienic milk cans, milk coolers, batch pasteurisers fillers etc.
- The SDDP team has thus been most resourceful in promoting and linking school milk nutrition to smallholder dairy development as evidenced by:
 - keen commitment of key stakeholders (at the highest public and private sector levels);
 - forging strong linkages between processors and smallholder milk producers;
 - Scheme ownership by school welfare committees, teaching staff, and parents and children.

30. The review team met many teachers and parents from the schools involved in the pilot Schemes. Their perceptions about the value of the Schemes are summarised below:

- The schemes are already making a difference.
- Children are happy and more active.
- Attendance and physical condition (weight/height) improved; both are recorded by teaching staff.
- Under-nourished children especially respond well.
- Milk is good for learning.
- Need more promotional and learning materials.
- Want 5 days a week, not just one,
- Understand about milk quality and safety.

2.5 Conclusion

31. These early successes have already attracted new partners and funding to the Programme, including:

- An expanded LBVB-Tetra Laval scheme using imported milk;
- The Mandalay Regional Government has provided a School Milk Loan of MMK 100 million loan (USD 113,000) to the MLF School Milk Foundation Trust Fund to expand the SDDP pilot for the 2013/14 academic year;
- A proposed MLF-Nestle scheme using locally produced Myanmar milk;
- Other actors, processors and sponsors, are also understood to be considering school milk feeding interventions.

32. Once more experience is gained from the expanded 2013/14 academic year Programme proposed in the next section, there should be enough evidence-based knowledge to justify including linking smallholder dairy development to school feeding programmes in the dairy policy and strategic investment plan due to be scoped by the Ministry of Livestock and Fisheries towards the end of 2013. By then Myanmar will be on the way to realising its commitment to the Chiang Mai Declaration: **a glass of Asian milk every day for every Asian child.**

3. RECOMMENDATIONS – OPPORTUNITIES FOR SCALING

33. Based on the review findings a number of opportunities related to scaling the pilot SMN Programme are identified. The following recommendations build these opportunities to expand the Programme to gain further experience over the coming 2013/14 academic year when the plans of new actors are better understood.

3.1 Proposed SMN Programme for the 2013/14 academic year

34. During the field work in Myanmar the review team assisted the MLF/MDA to shape its SMN Programme for the 2013/14 school year. In total it is expected 16,000 primary school children – a 3-fold increase over 2012/13 - will benefit in the coming school year. Almost 170,000 litres of milk, mainly from smallholder farming families, will be involved representing a further significant income boost for processors and, in turn smallholder milk producers. These targets increase to over 70,000 children and 1.4 million litres of milk when the LBVD-Tetra Laval and proposed MLF-Nestle schemes are included. A detailed Programme reflecting these targets should be prepared for consideration by the Myanmar SDDP Dairy Task Force.

Action: LBVD, MLF/MDA, FAO review team.

3.2 Resource mobilisation and advocacy

35. New partners-sponsors for the 2013/14 school year are listed above. It is understood other investors are planning dairy plants and may be willing to sponsor SMN Schemes. LBVD, MLF/MDA and FAO should ensure all stakeholders are represented, at least as observers, on the Dairy Task Force when SMN Programme matters are tabled at meetings. School milk advocacy, education and promotion activities should involve all actors and focus on domestic milk and dairy products produced in Myanmar.

Action: FAO SDDP team.

3.3 Technology transfer and training

36. The SDDP pilot SMN Programme has made rapid progress; but it has been going for less than one academic year. More experience is required before it can be scaled across the country. To build on the good start and maintain momentum the SDDP should accelerate activities related to technology transfer and training, including the installation of the much delayed modern milk processing demonstration equipment at the processors involved in the SMN schemes in the coming 2013/14 academic year. This will also require enhanced and targeted technical assistance for these processors.

Action: FAO SDDP team.

3.4 Best practise guidelines

37. To facilitate SMN Programme organisation and management the Myanmar team should develop a set of best practice guidelines and standard operating procedures (SOPs) for setting up, advocating and running SMN Schemes. The SOPs should be Scheme, i.e. partner and school, specific.

Action: FAO SDDP team.

3.5 Key performance indicators

38. The SDDP National Dairy Task Force at MLF/MDA should continue to work closely with the MOE and MOH; and should consider framing, say three basic and easily measurable child school milk nutrition key performance indicators, for example: (i) weight and height; (ii) attendance; and (iii) general well-being.

Action: FAO SDDP team.

3.6 Other interventions

39. It is understood GOM has requested support from New Zealand to develop the dairy sub-sector and that a team will visit Myanmar in May 2013 to scope a potential dairy intervention

tentatively budgeted at USD 6 million. The SDDP Myanmar team should explore the possibility of partnering with this intervention to scale the SMN Programme.

Action: FAO SDDP team.

3.7 FAO School Garden Telefood projects

40. Upon request from the FAO ADG for Asia-Pacific the review team visited two schools in the Nay Pyi Taw milkshed involved in the recently started Telefood School Garden projects to scope the possibility of adding SMN Schemes. The schools are: (i) Thuzanakaryi Monastery School for orphans from Shan State; and (ii) No. 138 Aung Chan Tha BPS. Following the visits and discussions with the concerned monks, teachers, parents and local LBVD, MOE and MOH officials, it was arranged that both schools would participate for the academic year starting July 2013 (see appendix E).

Action: FAO SDDP team.

3.8 Enhanced coordination and management

41. MLF and LBVD should consider consolidating the various SMN Schemes into one overall Programme with a 3-year rolling strategic plan and more detailed annual business plans. The annual business plan should contain, inter alia: (i) Programme vision and mission; (ii) nutritional, advocacy and educational strategy and targets; (iii) results-based management and coordination; (iv) reporting and M&E; (v) budget including sources of funding and cash flow. Each individual Scheme should have a standard contract and plan setting out partner responsibilities including, inter alia, organisation and management, targets, reporting and financing. These Schemes should be consolidated at the regional level and summarised in the overarching national SMN Programme business plan.

Action: LBVD, MLF/MDA, FAO SDDP team.

3.9 Mainstreaming the SMN Programme into national plans

42. By the end of the 2013/14 school year, sufficient experience/evidence should be available to justify including the linking of smallholder dairy development to school feeding and nutrition programmes in the dairy policy and strategic investment plan to be scoped by the Ministry of Livestock and Fisheries later in 2013.

Action: LBVD, MLF/MDA.

3.10 Next steps for the SDDP – strategic action plan

43. The proposed strategy for the SMN Programme in Myanmar for the 2013/14 academic year starting July should seek to build on the foregoing opportunities resulting from the strong pilot start. It should focus on activities and resources, including technical assistance, for: (i) the remaining FAO TCP project period up to December 2013, i.e. an exit strategy for the project; and (ii) the remaining SDDP project period up to February 2015. A proposed strategic action plan is described in more detail in the addendum to this document and includes, inter alia, the following five elements⁸: [update when plan completed]

- (1) Continued implementation with enhanced coordination
- (2) A guide business plan for the 2013/14 school year
- (3) Documentation of best practise guidelines/SOPs based on experience to date
- (4) Enhanced advocacy and promotion, including promoting domestic milk produced by Myanmar farmers over imported milk.
- (5) A review of the programme in early 2014 aimed at producing a detailed 3-year strategic business for school years 2014/15 to 2016/17 and a detailed SMN Programme for the 2014/15 school year.

Action: FAO review team.

⁸ SDDP Myanmar School Milk Nutrition Programme Addendum Document: Proposed Strategy and Action Plan for Academic Year 2013/14 (May 2013).

APPENDICES

- A. Review programme
- B. Stakeholders consulted
- C. SDDP Aims and expected outputs matrix
- D. Selected advocacy and dissemination materials
 - D-1. Myanmar School Milk Nutrition Programme is on Facebook-selected photos
 - D-2. Myanmar Photo and poster from SDDP Splash (December 2012)
 - D-3. Myanmar school milk programme from CFC Newsletter 1 (April 2013)
 - D-4. Milk contribution to the height of children

Appendix A

Review Programme

Date	Place	Activity
April 02-05	Yangon	Travel Bangkok-Yangon Briefings: FAOR, FAOAR, NC & MLF/DDA School milk stakeholder meeting Nestle partner meeting
April 05-07	Mandalay Pyin oo Lwin	Briefings: LBVD & MLF/MDA School visits: (i) (ii) (iii) Processor visits School milk stakeholder meeting
07-11	Nay Pyi Taw	LBVD meetings: DG, DDG, DD (planning), NPC LBVD/President's Demo Dairy Farm & NPT DTC Telefood project visits & stakeholder meetings: (i) Aung Chan Tha School ; (ii) Thuzanakaryi Monastery Orphan School Tetra Pak partner meeting
12-17	Yangon	Meeting with LIFT/UNOPS Report writing & preparation for RDTF meeting in Chiang Mai Debriefing: FAOR, FAOAR, NC Travel Yangon-Bangkok

Appendix B

Stakeholders Consulted

B-1. Yangon SMN Scheme stakeholder meeting, MLF Office (03 April, 2013)

	Name	Designation/Organisation
1.	U Win Sein	Vice Chairman, Myanmar Livestock Federation(MLF)
2.	Dr. Khin Hlaing	National Consultant, SDDP
3.	Dr. Myo Thant	Myanmar C P Livestock
4.	Dr. Moe Myint	MLF, Yangon Region
5.	U Tin Win	Silvery Pearl Dairy
6.	U Kyaw Soe Lin	Double Cow
7.	Daw Nyo Nyo Win	Taw Tike Buddhist Monastery School
8.	Daw Philip	Assistant Teacher, Buddhist Monastery School
9.	Daw Yin Yin Khaing	Head Mistress, No. 8 Basic Primary School, Mingalardon
10.	Daw Aye Myaing	Head Mistress, No. 25 BPS, Mingalardon Township
11.	Daw Yi Yi Thein	Head Mistress, No. 18 BPS, Mingalardon Township
12.	U Saw Hla	Farmer, Teikkyi Township (milk contributor)
13.	U Kyaw Zaw Tun	Super Cow Dairy
14.	Daw Than Than Maw	WALCO Dairy
15.	Daw July Moe	WALCO Dairy
16.	Dr. Nweni Toe Toe Zin	Sein Wut Hmon Feed Company
17.	U Tin Htay Oo	Director, PEP Milk Powder Company
18.	Dr. Than Hla	Executive Advisor, MLF
19.	Brian Dugdill	Dairy Adviser, SDDP, FAO

B-2: Mandalay SMN Scheme meeting, LBVD and MLF Office (06April, 2013)

	Name	Designation/Organisation
1.	Dr. Myint Oo	Secretary, Regional Livestock Association, Mandalay
2.	Dr. Moe Si Thu	Myanmar C P Livestock
3.	Dr. San Tun Oo	J. Secretary, Regional Livestock Association, Mandalay
4.	Dr. Aung Kyi Oo	District Veterinary Officer, LBVD
5.	U Khin Maung Soe	Aye Aye Chan Dairy
6.	Dr. Aung Nyan Min	Directorate of Health
7.	U Maung Maung Lwin	UNISON Dairy
8.	Mr. Brian Dugdill	International Dairy Advisor
9.	U Tin Win	Shwe Oh Dairy
10.	U Soe Thein	Myanmar Dairy Industries Limited (MDIL) Dairy
11.	U Yan Kwe Kyun	Happy Cow Dairy
12.	Dr. Kyaw Lwin	Secretary, MLF Patheingyi Township
13.	Dr. Thi Ha Lwin	Dy: Township Veterinary Officer (Dy TVO)
14.	Dr. Khin Hlaing	National Consultant, SDDP
15.	U Ne Win	Assistant Director, Directorate of Education
16.	Dr. Aung Khaing Than	Vice Chairman, MLF, Mandalay
17.	Brian Dugdill	Dairy Adviser, SDDP, FAO

B-3: Aung Chan Tha Village No. 138 Basic Primary School, Zabu Thiri Township, Nay Pyi Taw Council (Telefood School Garden Project)

	Name	Designation/Organisation
1.	U Thet Naing	Principle, No. 138 Basic Primary School (BPS)
2.	Daw Yi Yi San	Staff Officer, Department of Agriculture (DoA), Zabt Thiri Township
3.	U Than Zaw	School Welfare Committee member, No. 138 BPS
4.	U Kyaw Kyaw	School Welfare Committee member, No. 138 BPS
5.	U Tin Win	School Welfare Committee member, No. 138 BPS
6.	U Soe Lwin	School Welfare Committee member, No. 138 BPS
7.	U Kyaw Myint	School Welfare Committee member, No. 138 BPS
8.	U Bo Aye	School Welfare Committee member, No. 138 BPS
9.	Daw Thin Thin Myat	Deputy Staff Officer, DoA
10.	Daw Akary Win	Deputy Assistant Staff Officer, DoA
11.	Daw May Soe Oo	Deputy Assistant Staff Officer, DoA
12.	Dr. Khin Hlaing	National Consultant, SDDP
13.	Dr. Thi ha Lwin	Deputy Township Veterinary Officer
14.	U Ko Ko	National Consultant, Horticulture Project
15.	Mr. Brian Dugdill	Dairy Adviser, FAO, SDDP

B-4: Other stakeholders

No	Name	Designation / Organization
1.	Dr. Myint Than	Director General, LBVD, MOLF, Nay Pyi Taw
2.	Mr. Aung Gye	Deputy Director General, LBVD, MOLF, Nay Pyi Taw
3.	Dr. Yan Niang Soe	National Project Coordinator and Deputy Director LBVD, Nay Pyi Taw
4.	Dr. Ye Tun Win	Assistant Deputy Director, Planning, LBVD, MOLF, Nay Pyi Taw
5.	Dr. Win Myint	Deputy Director, Shan Region, LBVD, MOLF, Shan State
6.	Dr. Tit Ha Lwin	LBVD, Mandalay
7.	Ms. Bui Thi Lan	FAO Representative in Myanmar
8.	Mr. Aung Swe	Assistant FAOR, Myanmar
9.	Mr. Saw Alexander	Admin. Officer, FAO Myanmar
10.		UNOPS LIFT Programme
11.	Mr. Bjorn Willie	Development Director, Asia, Tetra Laval
12.	Mr. Hiroyuki Konuma	Assistant Director-General, FAO RAP
13.	Mr. Teruhide Fujita	Advisor, Japan Livestock Technology Association
14.	Mr. Francesco Gibbi	Common Funds for Commodities (CFC)
15.	Mr. Vinod Ahuja	Livestock Policy Officer, FAO RAP
16.	Mr. Vishnu Songkitti	APHCA Liaison Officer, FAO RAP
17.	Mr. Thanawat Tiensin	Regional Programme Coordinator, FAO RAP

Appendix C

SDDP Aims and Expected Output Matrix

Project	MTF/RAS/CFC/259	TCP/RAS/3309 (D)	Asia Dairy Network (ADN)
Aims	<p><u>Overall development objective</u> The overall development objective of the project is to improve the bargaining power and sustainable livelihoods of smallholder milk producers in Asia through the enhancement of productivity and market access and in so-doing:</p> <ul style="list-style-type: none"> • move milk and dairy products safely and affordably to urban consumers; • improve household food security, nutrition and healthy eating; • reduce the incidence of rural poverty and sustainably increase family incomes; • enhance development opportunities for women and youth; • build national and regional capacity through the introduction of modern technologies and knowhow; • safeguard the environment by promoting integrated farming and optimal use of local resources. 	<p><u>Outcome</u> Governments applying strategies that foster smallholder dairy development through linking producers to local markets by means of the establishment of school milk programmes in rural areas</p>	<p><u>Mission</u></p> <ul style="list-style-type: none"> • Facilitate an increase in productivity, quality and profitability, in an environmentally sustainable manner, at all points along the dairy value chain in Asia. • Facilitate the collection and dissemination of high quality information and knowledge relevant to dairy development in Asia. • Enhance the recognition of the contribution of small holder dairy farming to household food security and overall socio-economic wellbeing in Asia, and the importance of the contribution of women. • Enhance the global visibility of the Asian dairy sector.
<u>Expected outputs</u>	<ul style="list-style-type: none"> • A 20% sustainable improvement in milk productivity and the substitution of dairy imports with improved locally produced milk and dairy products. • Improved market access for 5,000 smallholder milk producers in 6 pilot milk-shed areas; • Improved milk quality in terms of hygiene, fat content, bacteria and TB negative animals; • 1,000 subsistence smallholders graduated to commercial smallholder milk producers. • Introduction of new technologies for milk processing in order to: (i) reduce post-harvest milk losses up to 50 percent; (ii) improve shelf-life of processed milk and dairy products; (iii) 75 percent of processed milk and dairy products meet local standards and regulations. • Establishment of Asian Dairy Network to represent the interests of the smallholder dairy sector in Asia along the entire cow-to-consumer dairy food chain • Up-grading of Chiang Mai DTC to a Regional Dairy Centre and strengthening capacity building in the three target countries 	<ul style="list-style-type: none"> • Strengthened skills and capacity to develop, implement and monitor intervention strategies which are tailored to introduce or expand school milk programmes in targeted rural areas. • Enhanced support for smallholder dairy development at the national and local level. • Increased dairy production by smallholders in locations where school milk programmes are implemented. • Increased appreciation in targeted rural communities for locally produced dairy through organized and effective SMEs that can manufacture and package a range of semi value-added locally acceptable dairy products using village level relevant technologies in an environmentally friendly way. 	<ul style="list-style-type: none"> • A web platform should be established for the ADN in the short term (12 – 18 months), which gives public access to information on the dairy sector in all member countries. • In the long term ADN would organize a biennial conference with the aim to reach the entire dairy value chain. Additionally this activity will allow for continuous monitoring and evaluation of the network. • The ADN should be a key repository for knowledge, in particular practical knowledge that can be used by small holder dairy farmers. Additional information collected by the ADN can also be used as background information when national dairy policies are being developed (i.e. a “passive” contribution to national policy development by ADN). • The ADN may facilitate capacity building at a local level by sponsoring farmer workshops at district or village level by sponsoring farmer workshops at district or village level

Appendix D

Myanmar School Milk Programme Selected Advocacy and Dissemination Materials

D-1. School Milk and Dairy Development in Myanmar is on Facebook.

<https://www.facebook.com/pages/School-Milk-and-Dairy-Development-in-Myanmar/283194048458284>

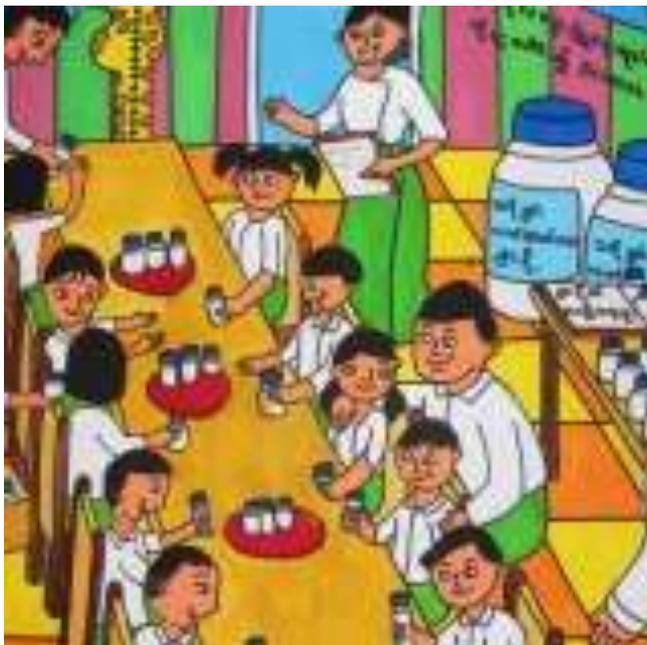
School Milk and Dairy Development in Myanmar is on Facebook.

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Highlights from World Milk day and World School Milk day Celebrations

Myanmar



World School Milk Day Celebrations in Myanmar

Myanmar School Milk Programme:
Supporting local dairy development and nourishing schoolchildren

Taking a break to enjoy milk supplied by the School Milk Programme



Starting in the summer of 2012, primary school children in Myanmar's Mandalay and Yangon regions began receiving free deliveries of milk from local smallholder dairy producers. A total of 23 schools received approximately 200 ml of milk per child of pasteurized or sterilized milk once a week as part of the pilot School Milk Programme.

Free, safe milk for Asia's children

The Myanmar School Milk Programme is one element of a much larger four-year project focused on small holder dairy development in Bangladesh, Myanmar and Thailand. The project is being implemented by the FAO Regional Office for Asia and the Pacific (RAP) with the support of relevant national governments and agricultural agencies. A significant portion of the funding is being provided by the Common Fund for Commodities (CFC) in the form of a grant.

The project combines the benefits of improved child nutrition and income generation for smallholder milk producers in Bangladesh, Myanmar and Thailand. Improving the production and marketing of quality dairy products covers a variety of activities along the value chain, from milk collection and processing to pricing and payment of farmers.

As part of the project, the increased supply of safely pasteurized or sterilized milk is also directly benefitting children in Bangladesh, Myanmar and Thailand under pilot school milk nutrition schemes.

This project combines the benefits of improved child nutrition and income generation for smallholder milk producers in Bangladesh, Myanmar and Thailand.

School milk for primary schools in Mandalay and Yangon

The school milk programme started in the Mandalay Region on 16 July 2012. At 11 participating Basic Primary Schools (BPS), a total of 1589 students received milk once a week. In the Yangon Region, the School Milk Programme was introduced on 21 August 2012, providing milk to 12 schools and a total of 2341 students. The schools in both regions received weekly deliveries of milk until the end of the semester in February 2013.

Based on anecdotal evidence, the free milk programme is positively impacting the participating schools. The headmistress from No. 8 BPS (Yangon) said that the most noticeable effect was the decline in absence rates during the rainy season. She believes that the weekly donations of school milk may be improving the students' health.



The free milk is distributed once a week, often accompanied by a boiled egg



Celebrating school milk

In September 2012, students from the participating schools in the Yangon region took part in an essay and poster contest in celebration of the 13th annual World School Milk Day (an initiative of the FAO). Additional activities also took place in Mandalay and Nay Pyi Taw. In recognition of the achievements related to this project, the Myanmar Dairy Association was presented with the School Milk Programme Activities Award during the World Food Day commemoration in Nay Pyi Taw in October 2012.

The pilot School Milk Programme in Myanmar has been considered a great success by all involved. Part of the process of completing the project includes the development of plans to scale up the pilot to cover other regions of Myanmar in the coming year.



Poster created to celebrate World School Milk Day

D-4. Milk contribution to the height of children (Note from Mr Vinod Ahuja, SDDP LTO, FAO, August 2012)

Milk has been an important source of protein, fat, and calcium. Research suggests that milk consumption may benefit many children. Janet Rich-Edwards and colleagues (2007) summarized several benefits cow's milk consumption. It stated that the children who consume milk products have reduced risk of protein malnutrition, fewer dental cavities, increased mineral content in their bones and fewer bone fractures, and reduce risk of developing rickets. A randomized, controlled study gave Chinese school girls 330 ml of cow's milk per day. After two years, these girls enjoyed small but statistically significant increases in bone mineral content and bone density compared with girls in a control group (Du et al 2004). There is also evidence that milk consumption--by increasing calcium intake--protects people from a variety of dangerous medical conditions including hypertension, colon cancer, breast cancer, ovarian cancer, kidney stones, insulin resistance syndrome, obesity, and lead poisoning (Nicklas 2003). Milk consumption appears to promote growth, too. In the Chinese study mentioned above, the milk-supplemented girls were taller than controls. Several other studies have documented a correlation between cow's milk consumption and height in children (Hoppe et al 2006). This is true in developing countries—where adding milk to the diet helps eliminate nutritional deficiencies. But it's also true in places where basic nutrition is already pretty good. For instance, a U.S. study found that preschool children who were in the top 25% for milk consumption were about a centimetre taller than their peers (Wiley 2009). Another U.S. study found that milk consumption was linked with taller teenagers, even after controlling for age, sex, household income, and ethnicity (Wiley 2005). In one study, researchers gave urban Mongolian school children supplements of whole milk and tracked their serum levels of GH and IGF-I. After a month of milk drinking, the kids experienced marked increases in GH and IGF-I levels (Rich-Edwards 2007). Similar results have been reported in China (Zhu et al 2005) and Britain (Cadogan et al 1997). In addition to better bones and taller kids, milk may also be associated with smarter kids. For example, when 7- and 8-year-old kids from rural Vietnam were given milk supplements, they scored better on short term memory tests than did kids in a control group (Lien do et al 2009). This might reflect an overall improvement in nutrition. But there is also the possibility that milk enhances intelligence via growth factors. According to this idea, growth factors in milk boost brain development as well as linear body growth.

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