Draft-02: 24/02/2008

Improved Market Access and Smallholder Dairy Farmer Participation for Sustainable Dairy Development

APHCA/CFC/FAO project CFC/FIGMDP/16FT
Asia-Pacific Smallholder Dairy Strategy Workshop
Chiang Mai, Thailand, 25-29 February 2008

Session 1 Paper: Smallholder dairying in the Asia-Pacific region
Based on synthesis of nine country lessons learned studies from Bangladesh, China, India, Mongolia, Pakistan The Philippines, Sri Lanka, Thailand and Vietnam

Brian Dugdill, Dairy Development Specialist, FAO
Nancy Morgan, Livestock Policy Officer, FAO, Bangkok

Introduction (slides 1 to 4)

1. Dairying is practised by millions of dairy operators - smallholders and small traders – in many of the countries of the Asia-Pacific region, where milk and dairy products often fulfil important cultural and social functions as well as providing nutritional and economic benefits. Over the past two decades most countries in the region have been implementing economic reforms, leading to rapid growth and increasing urbanisation. The adoption of market liberalisation policies, in addition to heavy farm subsidies in the industrialised countries, has resulted in the domestic markets of some countries in the region becoming increasingly dependent on highly competitive, but increasingly volatile global dairy commodity markets.

2. Dairying represents one of the fastest returns for livestock keepers in the developing world. It provides regular returns to farmers, especially to women, enhances household nutrition and food security and creates off-farm employment – as many as one job for each 20 litres of milk processed and marketed[1]. The highest growth in demand for milk and dairy products has been, and continues to be, in the Asia-Pacific region where dairy consumption has doubled since 1980, contributing more than 60 percent of global consumption gains. Though consumption has grown 4 percent annually, gains have been uneven across the region. Local production has not kept pace with demand and imports continue to grow.

3. The price of internationally traded food staples increased significantly in 2007, i.e. since the project was formulated. Of all the staple foods, dairy prices grew the most with full cream milk powder and skimmed milk powder more than doubling to over USD 4,000 per metric tonne, or about 50 US cents per litre of liquid milk equivalent. It is clear is that consumer prices are also increasing; what is not so clear is how the dairy industries in the region, and smallholders in particular, are responding to the unprecedented opportunity of better milk prices. Innovative strategies and conducive policies will most certainly be needed to enhance the competitiveness and market access of smallholder milk producers to take advantage of the new market situation.

[1] Omore, A., Cheng'ole Mulindo, J., Fakhrul Islam, S.M., Nurah, G., Khan, M. I., Staal, S.J. and Dugdill, B.T. (2004). Employment generation through small-scale dairy marketing and processing. Experiences from Kenya, Bangladesh and Ghana. A joint study by the ILRI and the FAO. FAO Animal Production and Health Paper No. 158. Romeo, 60pp, ISBN 92-5-104980-7. ISSN 0254-6019. TC/M/Y4860/E. http://www.fao.org/catalog/bullettin/07_04.htm

The Project (slides 5 to 6)

4. There are successful models where smallholder milk producers have gained sustainable access to markets, and some not-so-successful models. Given the current opportunities for dairying in Asia, the Animal Production and Health Commission for Asia (APHCA) asked FAO to develop a dairy development strategy for the Asia-Pacific region to lift the involvement of smallholder dairy farmers. The Common Fund for Commodities (CFC) agreed to fund a fast track project to develop the strategy. FAO is also providing funding from its regular programme budget.

5. The project started in June 2007 and will be completed in March 2008. The expected project results include: (i) a regional smallholder dairy development strategy for the Asia-Pacific Region (Asia DDS) and (ii) individual action plans for APHCA member countries, which promote the efficient and profitable involvement of smallholder milk producers in national dairy industries. More detailed information about the project and the workshop may be found in Opening Session 1 paper: The Project, the Context and the Workshop and the background APHCA Brief on Smallholder Dairy Development.

6. The project team has adopted a three-phased approach to implement the project:

(1) **Phase 1 (July-September 2007):** Nine rapid country lessons learned studies (LLS) in Bangladesh, China, India, Mongolia, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam

(2) **Phase 2 (October-February 2007):** Based on the outcome of the rapid studies, three in-depth value chain analysis studies in India, the Philippines and Vietnam.

(3) **Phase 3 (February-March 2008):** A regional workshop to outline the strategy and country action plans, immediately followed by detailed finalisation of the strategy and the action plans.

7. This paper and PowerPoint presentation (attached as annex 1) aim to set the scene for the workshop and contain an overview of the nine studies prepared under the first phase of the project. The paper draws largely on the interim project report[2] submitted to APHCA members at the 31st annual session held at Yangon in Myanmar from 29 October to 01 November, 2007, when the project implementation approach was endorsed. The phase 2 Value Chain Analysis studies are covered in other workshop papers and presentations, where specific linkages in the smallholder dairy value chain will be analysed.

Country lessons learned studies (slides 7 to 9)

8. The aim of the studies was: *to identify models and factors that have influenced smallholder participation in dairy food chains – good and bad*. They were produced by experienced national experts with hands-on dairying experience from the public, private and NGO sectors. To foster understanding and analysis, generic terms such as: (i) smallholder milk producer, (ii) small dairy farmer, (iii) informal and formal dairy markets and (iv) dairy value chains are defined in each study. The nine study countries have respectively, 65 percent, 85 percent and 29 percent of the Asia-Pacific regions cows, milk production and imports. The study countries represent three broad categories of smallholder access to dairy markets as indicated below.

[2] CFC-FAO Asia Dairy Strategy Project (CFC/FIGMDP/16FT) Field Document 4: Smallholder Dairy Lessons Learned (from FAO case studies and other literature), October 2007.

(1) Good access: where smallholders milk producers have remunerative access to formal as well as informal milk markets (China, India, Thailand)

(2) Limited access: where smallholder milk producers generally lack remunerative market access to formal markets, but where informal markets flourish (Bangladesh, Mongolia, Pakistan)

(3) Marginal access: countries where smallholders contribute little or no milk to formal and informal markets (Philippines, Sri Lanka, Vietnam)

Smallholder milk producer inclusive models (slides 10 to 12)

9. The more successful initiatives and models (best practices) identified in the studies are listed below. Three are looked at and analysed in more detail under the value chain analyses. While the models are grouped under six broad headings, each country mentioned has, of course, adapted the model to suit it own local needs. A seventh model adds school milk to existing models.

(1) Cooperative dairying model:
- Bangladesh: Milk Vita 2-tier cooperative model (Bangladesh Milk Producers Cooperative Union Limited)
- India: world renowned Anand pattern 3-tier cooperative model and more recent cooperative company (guided by National Dairy Development Board)
- Sri Lanka: Milco (Government-owned)
- Thailand: various milk collecting and processing cooperatives

(2) Dairy zone model (public-private sector equity partnership):
- Philippines: National Dairy Authority

(3) Chinese dairy park models (collective/community dairy cow keeping):
- Nestle: Heilongjiang Province
- Dairy parks: Inner Mongolian Autonomous Region (Yili and Mengniu Dairy companies)
- Silver Bridge: producer associations
- New Hope Group: Sichuan Province

(4) Contract farming model (private sector-smallholder incentive):
- Pakistan: Halla model
- Pakistan: Haleeb Foods Limited
- Sri Lanka: Nestle (purchased National Milk Board marketing operations)
- Vietnam: Nestle Ha-Tay scheme

(5) Mongolia Dairy chain models (comprising six cow to consumer modules for liquid milk and cheese):
- (i) milk producer orgs, (ii) dairy service centres, (iii) milk collection units, (iv) milk cooling centres, (v) milk processing units and (vi) milk sales centres.

(6) Social/community dairying model:
- Bangladesh: Community Livestock and Dairy Development Project model (Grameen Bank/Grameen Fisheries and Livestock Foundation)
- Bangladesh: Grameen-Danone Foods social model

(7) School milk programme:
- Where local school milk programmes feature strongly in the above models (Mongolia, Philippines, Thailand)

11. Which models and interventions did not perform well?

(1) Centrally planned models and models where the Government intervened in milk pricing did not fair well in the longer term run (Pakistan, Vietnam)

(2) By and large government-owned dairies, especially large-scale ones where civil servants were deputed to run the business did not do well (Bangladesh, Pakistan, Vietnam). Exceptions to this are the newer business model of centrally–owned, but market-oriented dairy companies (China).

(3) Initially the private sector wanted to maximize profits and reduce risks by using cheap imported (subsidized) dairy commodities rather than setting up difficult to manage, local milk procurement systems. While the private sector is more nimble and less constrained by regulation, than for example, cooperative models. The private sector was not fully engaged soon enough by interventions targeting smallholder milk producers. Most of today's successfully models are private sector-based models.

Key lessons (slides 13 to 18)

12. To facilitate comparative analysis of the lessons drawn from the studies that are inclusive and exclusive of smallholder milk producers, five influencing factors were used, namely: (i) economic (ii) institutional (iii) role of Government (iv) socio-cultural-environment and (v) technical. For the purposes of this paper and PowerPoint presentation, the key lessons are grouped according to whether they are mainly influenced by: (i) the private sector or (ii) the public sector. Of course, some lessons embrace public and private sector experiences as well as those from the NGO sector.

13. Three lessons related to the public sector:

(1) Governments: have to be careful about interventions in the sector, especially pricing policies (Sri Lanka, Thailand, Sri Lanka) and dairy cow loan schemes (Bangladesh, Mongolia, Vietnam)

(2) Government investment: in large state-run processing does not work (Pakistan, Philippines) and it is recognized that smallholder dairy development needs to be target based on selected criteria (Bangladesh, India, Mongolia, Philippines, Vietnam)

(3) Graduation: from subsistence to commercial smallholder and/or larger-scale milk production level occurs when the right policies and strategies are adopted (Bangladesh, India, Philippines, Thailand)

14. Three lessons related to the private sector:

(1) The private sector was not engaged soon enough: creative and carefully thought out linkages by smallholders/smallholder groups with the private sector (including technical assistance, financial support) can enable smallholders to move up the marketing chain (Vietnam, Bangladesh, Mongolia, Philippines, Pakistan).

(2) Milk quality and attractive product branding/presentation: are pre-requisites for persuading modern urban consumers to switch from imports to milk produced by local smallholders (China, India, Mongolia, Philippines)

(3) Value addition: to enhance returns to dairying, selected smallholders close both formal and informal markets should go into high value added ready-to-drink indigenous and niche products (China, Mongolia, Philippines)

15. Three key lessons applying across the dairy sector as a whole, including NGOs and international donors:

(1) Support services: Smallholders need an accessible and affordable complete package of support services (animal health, AI/breeding etc) to produce milk competitively (Bangladesh, India, Mongolia). Not surprisingly, in those countries new to wanting to increase milk production, the key constraints are lack of; (i) feed and fodder, (ii) dairy breeding stock and (iii) training (Sri Lanka, Vietnam Bangladesh) Technical know-how and skills delivered through vocational and outreach training are equally important (India, Mongolia). Industry institutions (Dairy Boards, Authorities, Associations) and smallholder dairy groups (associations, cooperatives etc) can have a pivotal role in supporting dairy development (India, Mongolia, Philippines).

(2) Pro-poor or social smallholder dairying: The well-known but still important socio-economic-cultural-environment benefits of smallholder dairying are: (i) improved household nutrition and food security, (ii) higher incomes, (iii) more jobs, as part of mixed and integrated farming systems to spread risks and sustain the environment (all countries). Pro-poor social programmes, including school milk programmes, need to be carefully targeted and are usually only sustainable if linked to remunerative markets (Bangladesh, Mongolia).

(3) The myth of lactose intolerance: Urban populations in countries traditionally seen as non-milk drinkers and/or lactose intolerant are increasing consumption of ready-to-drink processed and cultured milks (Philippines, Thailand, Vietnam). School nutrition programmes have helped to develop the milk drinking habit while promoting future demand (Bangladesh, Philippines, Thailand); but they the have sometimes been based on imported milk, which does not benefit the local dairy sector (Bangladesh)[3].

16. These lessons may be further consolidated into five overarching factors as follows:

(1) Smallholder dairying: is straightforward in concept but complex in execution.

(2) Smallholder milk producers: must be competitive in order to access markets, i.e. produce top quality milk at affordable prices. In achieving this status most subsistence smallholder milk producers have progressed to become small commercial dairy farmers.

(3) A "Strategy of including smallholders: requires a deliberate and creative development vehicle that would be sensitive to the impact of policies, programmes and activities to smallholders" (Sally Bulatao, the Philippines)

(4) Smallholder dairy action plans: the impact of appropriate policies, programmes and activities on smallholders depends on the local context and, most importantly, the people involved

(5) The private sector: must be fully engaged in participating in the development of:
- the regional smallholder dairy strategy
- national actions plans[4]

[3] The subject of school nutrition schemes based on local milk or imported milk is covered in Session 2 paper: Selected smallholder dairying experiences from Bangladesh and Mongolia

4 **Strategy (n):** plan, scheme, policy, approach, tactic, line of attack, stratagem
Policy (n): rule, strategy, plan, guiding principle, course of action, guidelines, procedure
Plan (n): diagram, map, chart, sketch, graph, arrangement, preparation.

Conclusions and the challenge for workshop participants (slides 19 to 22)

17. Leaving aside the two major dairy production and consumption countries of Australia and New Zealand, other countries in the Asia-Pacific region have very different traditions of milk use and consumption. As a result they have very different levels of per capita milk availability ranging from as little as 2 kg to almost 200 kg/capita/year, compared with 41 kg and 196 kg for Asia and developed countries respectively. With the gathering pace of globalisation, many of these practices are changing and those countries not traditionally associated with milk drinking are adapting their food consumption habits as urbanisation and disposable income increase.

18. In the 1970s and 1980s, huge, so-called integrated dairy programmes and projects were set up in many countries in the region with hugely expensive, high capacity western technologies and equipment with the help of the international community. In some of these countries, local dairying was held back by the same international community, which, at the same time poured huge amounts of subsidized milk into many Asian countries, mainly in the form of skimmed milk powder and butter oil. Some of these countries were able to use these commodities to develop their own dairy industries. Others could not; local milk prices were depressed, milk production dropped, and the dairies became under-utilised, partly because the packaging materials and spare parts from developed countries were very expensive. Today these countries are still highly dependent on imported milk.

19. On the other hand. during this period dairying increasingly became recognized as a catalyst for livelihood and social development, initially based on the success of the Indian Anand pattern dairy cooperative model. This cooperative was driven by its charismatic leaders that now benefits tens of millions of smallholder milk producers in many parts of India. The new dairy park models (centrally-operated collectives) from the Inner Mongolian Autonomous Region of China are even larger. It needs to be recognized, however, that these successful models can not be immediately replicated in other places due to the specific and contextual enabling environments, which are not easily transferable.

20. There have been many initiatives, consultations and workshops over the past quarter of a century on dairying for developing countries. As long ago as 1974 the slogan "Dairying as an instrument of change" was adopted by the International Dairy Federations and FAO at the International Dairy Congress held in Delhi, India in 1974. Many workshops addressing smallholder dairying have been held since, with limited impact and virtually no involvement of the private sector.

21. How can our workshop and the outcomes flowing from it be different and have more lasting impact? We believe that the workshop and our approach have some unique advantages in this respect.

(1) First, our approach is ***participatory***, i.e. inclusive of all stakeholders throughout the producer-consumer dairy food chain, including the public, private and NGO sectors. We have participants here representing all these interest groups.

(2) Second, the workshop is ***dynamic***, i.e. it builds on the smallholder dairying workshop held here in Chiang Mai by APHCA in late-2004, but more importantly will build on your combined experiences as well as some newly developed systematic tools for assessing the competiveness of the various smallholder dairying models.

(3) Third, the regional dairy strategy and national action plans will be ***business-oriented***, i.e. it will recognise the market and the private sector as the driving forces and Governments as facilitators.

22. We are extremely fortunate to be implementing our project at a time of unprecedented demand for milk in the region and the prospect of increasingly remunerative prices for milk producers. We have the technologies, the equipment and the knowhow in the region to increase milk production to the benefit of smallholder milk producers, processers large-scale and small-scale, and urban consumers.

23. Our project slogan is ***Asian milk for health and wealth***: healthy people, wealthy producers. Our challenge is to grasp these opportunities and, in so-doing, better the livelihoods of smallholder milk producers and milk consumers in APHCA member countries.