

SUSTAINABILITY OF SCHOOL MILK PROGRAMMES¹

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1. Introduction

Commercial (Smallholder) dairy production has high potential for poverty alleviation in rural areas due to regular income and employment generation. It is therefore highly supported by the government of Tanzania as a tool in the national poverty reduction strategy. Milk consumption per capita in Tanzania is still low at about 39 litres per annum compared to our neighbours in Uganda (40 litres), Kenya (84 litres) and the WHO recommendation of 200 litres. The main reason for this low milk consumption is that most Tanzanians, mainly from non cattle keeping communities, do not have a milk drinking habit. This calls for efforts to cultivate a milk drinking habit in the population. The aim is to increase milk consumption per capita to 40 litres per annum in 2004/2005 and even higher in the long term therefore leading to increasing demand for milk, expanding the milk market and encouraging increased milk production. Various strategies are applied in order to cultivate a milk drinking culture but the main ones are:

- (a) the annual milk promotion weeks and
- (b) the school milk programme.

(a) Annual Milk Weeks

The annual milk promotion weeks, which usually include the World Milk Day are annual events conducted in a different region each year to promote milk drinking and consumption of other dairy products. A lot of activities to attract people to the show grounds are arranged and once in the ground they are offered free milk and given a chance to taste other products such as cheese, butter and yoghurt. The growth of per capita milk consumption in Tanzania from 22 litres per annum in 2000 to 39 litres per annum in 2005 can partly be attributed to these efforts.

(b) School Milk Programmes

It is believed that more efforts at increasing per capita milk consumption should be aimed at the young generation to whom milk has more nutritional benefit, constitutes a larger proportion of the population and are more receptive to change habits than adults. As an example, in Tanzania there are seven million pupils in primary schools which is about 20% of the Tanzanian population. If only 10% of them drank a glass of milk every school day they will consume 140,000 litres of milk every day which is almost all the milk processed in Tanzania daily. Therefore, the potential impact of School Milk Programmes on any national milk market can not be overemphasised.

Apart from the benefits of School Milk programmes to the Dairy industry milk also has the following benefits to school children:

- To aid normal growth and development

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- Improvement of general health of the children
- To increase school performance, Hungry students are tired students and learn less. A mid-morning break with milk makes a difference
- School children develop good nutritional habits, which are part of healthy living, at a tender age
- Better school attendance, less truancy and fewer dropouts
- Bettering the children's nutrition we will have productive adults and thus a more developed country and a better future too.

The immediate benefit of school milk programmes is the market for the milk. As shown earlier due to their numbers the school children can consume large amounts of milk daily. But the main aim of school milk programmes which is easily and usually missed is the long term effect of cultivating a milk drinking culture in the general population. For example if the Tanzanian School milk programme succeeds it will mean that all the children from participating schools completing primary education will be accomplished milk consumers. This will have a profound impact on the per capita milk consumption figures of the nation. The examples from Thailand (Suwanabol, 2005) and from China (Lai, 2005) clearly illustrate this effect.

Table i. Effects of School Milk program in Thailand (Suwanabol, 2005)

	Year	amount	Year	amount
Raw milk production	1984	43,544 tones	2003	731,923 tones
Milk marketed	1991	290 mil. lts	2003	1,146 mil. lts
Farmers income	1994	800 mil Baht	2003	26,800 mil. Baht
Per capita milk consumption	1988	2.0 lts	2002	23.0 lts

Table ii. Effects of the School milk programme in China (Lai, 2005)

	1992	2002
Dairy cattle numbers	4.6 mil.	6.9 mil.
Raw milk production	8.6 bil lts per annum	14 bil. lts per annum
Liquid milk products p.a.	950 mil lts p.a.	3.4 bil. lts p.a.
Per capita milk consumption (lts)	6.7	10
Dairy farmer's income (USD)	2.15 bil.	3.24 bil.
No. of Dairies	700	1600

In order to realise fully the demonstrated benefits the School milk Programme has to run for a considerable length of time thus the requirement for sustainability.

SUGGESTED CONDITIONS FOR A SUSTAINABLE SCHOOL MILK PROGRAMME

As has been shown sustainability of School Milk Programmes have to run for long periods, have to be sustainable in order for their full benefits to be realised. The conditions for a School Milk Programme to be sustainable are discussed in the following sub titles:

- Planning
- Management
- Funding and
- Continuous evaluation

1. The Planning stage

The planning stage is very important because it is here that the objectives of the whole programme have to be clearly stated and the direction it will follow. It is at the planning stage that it will be decided whether it will be a short term feeding project as is done during emergencies such as during and after famines and floods or a long term feeding programme aimed at correcting nutritional deficiencies among children to enable them to improve their learning capabilities while at the same time benefiting the dairy industry and the national economy as a whole. The approaches will definitely differ. It is proposed that the planning stage has to start with a few schools, a pilot project. In this pilot project is where the local government authorities, schools, school committees and parents are approached and sensitised on the virtues of milk to the school children. Such an approach was followed in Tanzania as shown below.

Ministry of Water and Livestock Development convened a meeting of some stakeholders on 15th May 2001 which included:

- Tetra Pak
- UNICEF
- Milk processors
- The Tanzania Food and Nutrition Centre (TFNC)

At the meeting presentation on the importance of school lunches and school milk feeding programmes were received and discussed.

After presentations by various experts the meeting concluded that:

- The programme has high potential for increasing milk consumption
- Will increase milk market volumes
- Will promote school attendance, intellect and performance of school children

It was therefore decided that the school milk programme be started and implementation be by stages starting with municipalities, cities and townships and later spread to the rural areas.

The Programme framework

The programme objectives were to:

- Alleviate malnutrition and temporary/hidden hunger among school children
- Build a milk drinking culture among school children which they will be expected to pass on to their own children
- Improve school attendance
- Develop the dairy sector by increasing milk sales in the short term and milk demand and market in the long term

The programme framework was developed in June 2001 during the National Milk promotion week in Arusha. The programme started in late 2001 and early 2002 in Arusha and Kilimanjaro regions (Northern part of Tanzania) as a pilot project.

Steps in the implementation of the pilot project

- Selection of the schools. Schools were selected taking account of their accessibility and closeness to the source of supply
- Sensitisation Workshop. Attended by stakeholders including councillors, chairpersons of school committees, and officials of district councils at which the importance of milk to the school children was explained. District and ward committees were elected at this workshop.
- Meetings at school level with the parents and committees elected at the workshop.
- Meetings of school committees and prospective milk suppliers to review supply capacity, payment for the milk and supply logistics.

Table iii: Schools in the pilot project

Region	Number of primary schools
Arusha	5
Kilimanjaro	13
Total	18

Assessment of the pilot project

The results of the assessment of the pilot project were presented to a roundtable discussion during the National milk promotion week in Iringa in June 2003. It was reported that:

- Milk was very much liked by the school children
- Children health status improved
- Children attendance in schools on the project improved
- Parents were ready to pay for the milk
- Leaders of government and other organisations in the areas accepted and liked the project
- Milk sales improved during the period under review

Despite the successes achieved there were also some problems such as:

- Coverage could not reach 100% because there were orphans and children from very poor families who could not pay for the milk
- There was some difficulty in involving teachers in supervising the actual distribution of the milk to children
- The pilot project coincided with abolition of all parental contributions to schools and school fees leading in some areas to initial resistance by some parents
- Where milk vendors took part in the sensitisation campaign there was misunderstanding of the campaign to be a sales push obscuring the benefits to the children

After going through the pros and cons it was agreed to have one general approach whereby:

- Sustainability should be the key objective. In order to get the intended benefits the programme has to be long term. Changing habits takes a long time. This requires that the programme run across generations. Therefore the need for sustainability can not be overemphasised
- Parents to pay for the milk after sensitisation and decision. The only permanent factors in the programme are the parents and the children. In most urban areas parents give their children some money to spend on some food items while at school. The amounts may be small but usually more than the price of a 250 ml pouch of pasteurised milk. Once the parents are convinced they only have to advise their children to spend their daily allowance on milk.
- The school board to solicit external funding for the problem children such as orphans. The school boards are closer to the parents and children and they know the problem children. In addition their request for funding has a larger chance of being considered favourably because it comes from the community and not an outside body.
- Sensitisation to be done by a neutral body comprising of experts (NGOs, Dairy Board, TFNC, MWLD). This arrangement will remove the problem of the programme being seen as a sales campaign.
- School committee to negotiate with prospective suppliers on behalf of the parents. This brings the actual control of the programme to the parents themselves and therefore more transparent. Lack of transparency may discourage parents from contributions if there is any suspicion of dishonesty.
- There has to be a neutral national committee to oversee the programme by setting a level playing field for all the stakeholders. School milk programmes have benefits to the various stakeholders. The neutral National Committee will ensure that farmers supplying the milk, processors distributing the milk, parents paying for the milk and children drinking the milk all get their fair share of their efforts.
- Each school has to be approached separately to ensure adequate explanation and avoid misunderstanding. Introducing the programme by circulars will externalise the programme from the parents and will affect the sustainability.

2. Management of the Programme

Management of a School Milk programme will be determined by the results of the pilot project. The pilot project in Tanzania indicated that at the school level the programme be managed by the School committee which is a body representing the parents, teachers and local government officials. The school committee selects the supplier and negotiates prices and apportions responsibilities. This arrangement makes the parents own the programme and increases transparency. At district level there is a district committee which mainly deals with sensitising schools in the district to join the programme. It does this by either using own experts or invites experts to explain the importance of milk to the school children.

At national level there should be a National committee whose responsibility is to ensure that every stakeholder benefits from the programme. It guarantees the quality of the milk supplied, suppliers of milk are paid and generally assuring a level playing field for all players. In addition this committee solicits funds from various sources to pay for the problem children such as orphans and those for very poor families who would otherwise be left out. This committee also negotiates with the milk processors and other stakeholders to stabilise the milk price and even to lower them by volume sales and prompt payment.

Such a committee can be a government organ or can be composed of a combination of government officials and stakeholders but essentially it should be multidisciplinary and include experts, decision makers and parent's representatives.

3. Funding of School Milk Programmes

Funding is one of the key factors determining the sustainability of a school milk programme. There are many ways of funding school milk programmes ranging from wholly government funded to wholly parent funded. In rich developed and oil exporting countries is where wholly government funded programmes are mainly found. The problem here is sudden changes of policy in the government can adversely affect the continuity of the programme.

Wholly parent funded programmes have the problem of not being able to include all children in the school as there will be orphans and those from very poor families who can not afford the additional cost of the milk on top of school fees.

A programme whose funding includes parents, the local government, the central government, the dairy factories and international donors stands a better chance of sustainability because it will cover all children and changes in the policies of one can not ground the whole programme. The chances of fast recovery from any shock are higher in a programme being funded from many sources. This arrangement also calls for a strong central organisation to be able to organise all the donors and maintain a fund and to disburse it to all schools fairly and also be able to negotiate for lower milk prices by assuring prompt payment and or prepayment.

4. Continuous evaluation

The pilot project can only detect problems that occur during the time it is running. While rolling out the programme to more schools there is need to continually evaluate the

programme to detect any problems and solve them as soon as possible. Problems such as lactose intolerance, distribution bottlenecks, price movements, packaging and flavouring of the milk are some of the problems that may be encountered at a later date and one should always be on the lookout. This also underlines the importance of the central or national committee which will help in solving such problems and also keep a database of such problems and actions taken in order to advise district committees as and when need arises.

CONCLUSION

School Milk Programmes have benefits to various stakeholders. The first beneficiaries are the school children, who it has been demonstrated that their performance in school improves by improving school attendance, improved attentiveness, reduced dropouts and general health improvement. The dairy industry which is another beneficiary gets a ready market for the milk supplied to the schools but at the same time creating future customers. The national economy, the other beneficiary gets employment, increased investment in machinery, equipment and dairy farming

For all benefits to be realised fully the School Milk Programmes have to run for a considerable length of time. For this to happen they have to be sustainable. It has been suggested that well planned programmes have to start small and roll out depending on the results of the past stages. Management of the programme has to be based on the findings from the pilot project. There should be a central organisation which leaves the actual running of the programme at school level to the parents committee while it acts as a quality controller and overseer at national level. Sustainability is enhanced when parents pay for the milk, with some assistance for the problem children such as orphans and those from very poor families. Continuous evaluation and reorientation of the programme depending on results of evaluation is another essential factor for School Milk Programmes to be sustainable.

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