

SCHOOL FEEDING HANDBOOK











SCHOOL FEEDING HANDBOOK

Welcome to the new edition of our School Feeding Handbook, developed and published by Tetra Laval Food for Development.

The Tetra Laval Group comprises three industry groups, Tetra Pak, Sidel and DeLaval, all focused on technologies for the efficient production, processing and packaging of food. Since 1951, we have been demonstrating value to society and individuals by participating in the development of school feeding and nutrition programmes around the world.

The first school milk programme using Tetra Pak packages was introduced in Mexico in 1962 in collaboration with the National System for Integral Family Development (DIF), and is still reaching millions of children today.

More than 68 million children in 56 countries now receive milk or other fortified beverages in Tetra Pak packages in school. Tetra Pak's vision, "We commit to making food safe and available, everywhere", is the aspirational goal that drives our activities so that children around the world can have access to safe nutrition. Through our global experiences, we have seen how effective sustainable school

feeding programmes (SFPs) can be in improving nutrition and education for vulnerable groups.

Today, the growing global population faces many challenges, including hunger, food insecurity, malnutrition and inefficient agriculture. We believe the most effective way to tackle global challenges related to food security and nutrition is to build sustainable food value chains, working in partnership with our stakeholders.

Partnership and collaboration is absolutely key to our approach, and to ensuring that programmes are sustainable and continue to improve health and education for vulnerable children over the long term.

Our role in Food for Development is to support our customers and to work in collaboration with governments, non-governmental organisations, United Nations agencies and international aid agencies to develop SFPs that are linked to local agriculture development. We offer our partners practical support in programme organisation, implementation and evaluation, and advise on food safety and quality controls in schools, sharing best practices used worldwide. (continued on page 05)









These partnerships also include working with private sector companies. The focus on measuring the economic benefits of SFPs is growing ever stronger, and we are increasingly seeing that programmes based around milk are an effective mechanism for spurring dairy production and developing a robust local value chain.

The active participation of private sector partners is also crucial in bringing about the transition from small donor-funded initiatives to large-scale, government-funded programmes. Many countries around the world have implemented policy and legislation for SFPs, and this has also proved key to their long-term sustainability.

Another important element in ensuring sustainability is community engagement and empowerment. Where we can, we involve and train communities from the start, in setting up beverage carton storerooms, hands-on programme management and collecting data so that results can be measured and quantified. We know this has a positive impact on implementation and programme longevity: in some cases, communities on their own initiative have secured government funding to continue the programme after donor support ends.

Each programme is different, and the challenges – and the opportunities – are evolving constantly. To take just one example, recycling is an ever more important issue for governments, and a central part of Tetra Pak's commitment to protecting the environment.

As part of the technical support we provide to SFPs, we share best practices in providing environmental education and working with local partners to promote recycling.

With this Handbook, our aims are: to provide a unique insight into the many positive benefits that SFPs are bringing to children and communities worldwide; to highlight how SFPs have played a key role in improving health, education and local agriculture development; and to share our global experiences, providing a clear, practical guide for those directly involved in programme organisation and implementation.

I hope you will find it both useful and enlightening.

Rafael Fábrega, Director, Tetra Laval Food for Development



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1.1 INCREASING THE WORLD'S ACCESS TO SAFE FOOD

School feeding programmes are helping to tackle the challenges of malnutrition and food insecurity at a global level – and making a measurable difference to children's lives.

According to the United Nations (UN), the global population is set to rise to more than 9.7 billion by 2050. This is already creating significant challenges in the form of hunger, food insecurity, malnutrition and inefficient agriculture. Currently, some 821 million people are chronically undernourished and, in order to feed the world in 2050, overall food production must increase by more than 50%.

School feeding programmes (SFPs) can play a very important role in addressing such challenges. As well as being a proven means of improving health and promoting better educational outcomes, SFPs are helping to support the development of sustainable food value chains and reducing food losses and food waste. As such, they are making a major contribution to the UN Sustainable Development Goals (SDGs) (see below). Here are four examples of the benefits they can bring.

1. Improve health and nutrition

According to a World Food Programme (WFP) study, one in four children globally are stunted, and one in six – roughly 100 million – in developing countries are underweight. Evaluation of SFPs – including in the Dominican Republic (see opposite) – shows that they are having a positive impact on many aspects of children's physical health, including levels of anaemia, vitamin deficiency, weight and height.

2. Increase participation in education

SFPs have a positive impact on both nutrition and learning. Children who participate are more likely to enrol in school, less likely to drop out, and achieve better academic scores, as demonstrated by results from the school milk programmes (SMPs) in Vietnam and Myanmar (see opposite). Positive impact of programmes on classroom attendance has been documented in Bangladesh (see page 21) and Zambia (see opposite).

3. Create sustainable growth

By making use of locally sourced products, SFPs are supporting local agriculture and farmers, boosting incomes and creating new employment opportunities, such as in Thailand (see page 22). Overall, the economic impact is significant. For SMPs, the economic impact is focused on the dairy sector.

4. Raise environmental awareness

SFPs are helping to raise awareness of environmental issues, as well as building community engagement. Programmes support a range of activities in schools, including practical guidance on dealing with empty beverage carton packages and preparing them for recycling. Other resources, including the internet, are helping to raise awareness, disseminate key messages, and encourage healthy competition between schools.

Supporting sustainable development

According to the UN, SFPs are contributing directly to these SDGs:

2 ZERO HUNGER	SDG 2: Zero hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3 GOOD HEALTH AND WELL-SENG	SDG 3: Good health and well-being	Ensure healthy lives and promote well-being for all at all ages
4 QUALITY EDUCATION	SDG 4: Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
8 DECENT WORK AND ECONOMIC GROWTH	SDG 8: Decent work and economic growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
10 REQUALITIES	SDG 10: Reduced inequalities	Reduce inequality within and among countries

DOMINICAN REPUBLIC

The Ministry of Education's SFP is reaching more than one million primary school children every year. Together with the WFP, we have supported improvement of quality control and food safety in the distribution chain.

- Number of children 1,060,000
- Beverage Fortified milk
- Programme funder Government
- **▼** Results
 - Anaemia reduction: 24.2% (for children 6–14 years).
 - Malnutrition reduction: 18.4%.



ZAMBIA

School milk was first launched in Zambia in 2011. While the number of children may be relatively small, the commitment of the schools involved to securing programme sustainability is impressive, as has been the impact on both educational outcomes and physical health.

- Number of children 17,000
- **Beverage** White milk
- Programme funder Swedish International Development Agency (Sida)
- **☑** Results
 - BMI up 5.2% for boys and 11.2% for girls.
 - Enrolment up 7.4% and attendance up 7.6% since programme inception.
 - Children leaving school before the end of the day down from 35% to 1.8%.
 - Pass grades up 16.3%.



MYANMAR

Tetra Laval initially funded an SMP in 2013 to alleviate the impact of Cyclone Nargis. We provided support for programme organisation and implementation to ensure compliance with best practices and promote sustainability. From 2020, school milk programming in Myanmar is 100% government funded.



- Number of children 37,308
- Beverage White milk
- Programme funder Initially Tetra Laval, now 100% Myanmar government

☑ Results

- School enrolment: +2.5% for targeted schools compared with +0.5% for control schools (Yangon region, 2017).
- Dropout rate: +0.9% for targeted schools compared with +5.1% for control schools (Yangon region, 2017).



VIETNAM

The United States Department of Agriculture (USDA) initially funded an SMP in 2001 that targeted primary school children in Dong Thap Province. The programme is presently 100% funded by the Vietnamese government in seven provinces.

- Number of children 800,000
- **Beverage** Fortified milk
- Programme funder Initially USDA, now 100% Vietnam government
- ▼ Results
- Proportion of grade 3 students receiving a "good" rating: 25.7% (compared with 16.3% prior to the programme).
- School enrolment: 0.5% decrease at targeted schools compared with a 6% decrease at control schools.

1.2 SCHOOL FEEDING AND THE ROLE OF TETRA PAK

Working in partnership and collaboration is key to the support we provide for school feeding programmes, drawing on our decades of experience worldwide.

Currently, more than 368 million children in 169 countries receive food in their schools, mostly through government budgets. Milk is served in 62 countries reaching 160 million children, either as part of a school feeding programme (SFP) or as a separate school milk programme (SMP). School feeding is a good investment: a study based on World Food Programme (WFP) school feeding programmes in 14 countries reported an economic return of between US\$3 and US\$9 for every US\$1 invested.

Proving the value of school feeding

Tetra Pak has demonstrated the value to society and individuals of participation in school feeding and nutrition programmes since 1962, when the first SMP using Tetra Pak packages was introduced. Globally, more than 68 million children in 56 countries receive milk or other nutritious beverages in Tetra Pak packages in their schools (see map below).

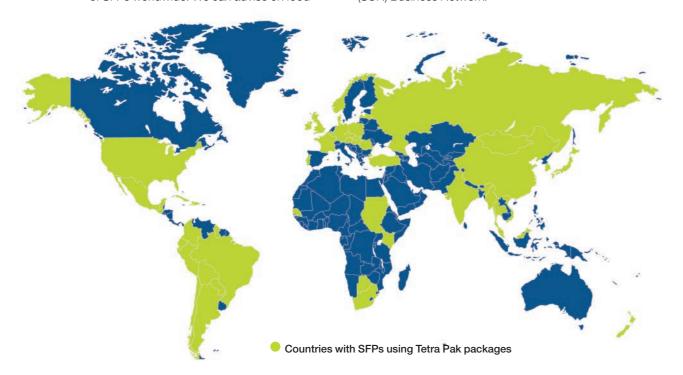
Food for Development (FfD) offers our partners practical support in the organisation, implementation and evaluation of SFPs, sharing best practices and drawing on our knowledge of SFPs worldwide. We can advise on food

safety and quality controls, and information about environmental education and recycling is always included in our support. We also have a strong track record in supporting our customers in developing and launching new fortified and nutritious beverages for use in SFPs (see page 14).

Partnership and collaboration

To build sustainable food value chains and address global challenges related to food security and nutrition, collaboration between stakeholders and across borders is essential. FfD is working together with the public sector in many countries, mostly with ministries of agriculture and education.

We have a strong network within the United Nations, working closely with the World Food Programme (WFP) and the Food and Agriculture Organization (FAO). We also work alongside international aid agencies and non-governmental organisations including the Global Child Nutrition Foundation (GCNF), the Global Alliance for Improved Nutrition (GAIN) Nordic Partnership and the Scaling Up Nutrition (SUN) Business Network.







821 million people globally are undernourished



million people 151 million

Approximately 1 in 5 children (22%) worldwide are affected by stunted growth

68 million III

children receive milk or other nutritious products in Tetra Pak packages in schools

9 billion

Tetra Pak packages used in SFPs annually



368
million children



in 169 countries receive food in their schools, mostly through government budgets

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1.3 FOOD SAFETY AND EFFICIENCY

Tetra Pak's aseptic technology and robust packaging are providing a practical solution to the logistical challenges involved in delivering safe nutrition to children in school feeding programmes.

Efficient practical implementation of school feeding programmes (SFPs) is crucial to maximise impact and achieve the best possible results. Due to infrastructure and distribution challenges in schools worldwide, food processing and packaging technology plays an important role in providing children with access to safe nutrition in schools.

Aseptic processing and packaging involves filling sterilised packages with ultra-high temperature (UHT) treated liquids or food, and is critical to the viability of many SFPs around the world. It provides a practical solution to logistical challenges such as minimising food waste and maintaining an adequate supply of school feeding beverages on site to cater to varying attendance levels.

In countries with no reliable cold chain and where schools do not have refrigerators or dependable access to electricity, UHT technology enables school feeding beverages to be stored for 6 to 12 months without

refrigeration. This ensures that even children in the most remote areas have access to and are able to consume safe, nutritious beverages.

A longer shelf-life also means that deliveries to schools can be less frequent (once or twice monthly rather than daily, as would be required for pasteurised milk). This is a significant advantage where schools are located long distances from warehouses, or in countries with poor infrastructure or where roads are subject to seasonal flooding (see opposite). All these factors also combine to make aseptic packaging a cost-effective solution – no electricity, no waste and significantly lower transport costs.

In addition to extending shelf-life without the need for preservatives, the UHT process eliminates harmful bacteria or pathogens while maintaining foodstuffs' nutritional value. The aseptic package is designed to protect the contents from the effects of light and oxygen.



PIONEERS OF ASEPTIC PACKAGING

Tetra Pak launched the world's first aseptic package for milk, the Tetra Classic® Aseptic, in 1961. Since then, we have gone on to develop hundreds of innovative packaging solutions designed to meet the changing needs of customers and consumers, at the same time as delivering on our brand promise: PROTECTS WHAT'S GOOD™.

ULTRA-HIGH TEMPERATURE (UHT) TECHNOLOGY: THE KEY BENEFITS

- Eliminates harmful bacteria and pathogens
- Shelf life of 6 to 12 months without preservatives
- No need for refrigeration
- Nutritional value and quality maintained in uniform serving size
- Ensures safe access and distribution to rural schools in remote areas

OVERCOMING INFRASTRUCTURE CHALLENGES

As well as guaranteeing a long shelf-life for their contents, Tetra Pak aseptic packages are robust and resilient – vital attributes in countries with poor road networks and inadequate infrastructure. Here are some examples of places where our beverage cartons are helping to support the delivery of successful SFPs, despite significant logistical challenges.



HAITI

The image above shows an example of a rural school in Haiti, housed in rudimentary wooden buildings, with dirt floors. Such schools typically have no kitchens in which to prepare food or beverages, an inconsistent supply of electricity and a lack of potable water. UHT milk in sturdy aseptic packaging is essential to ensuring that children have access to a regular supply of nutrition that ensures food safety.

NIGERIA

The road network in Nasawara State, northern Nigeria (above), is underdeveloped. Pick-up trucks used for deliveries are slow and often have inadequate suspension to cope with poor surfaces and unpaved roads, so robust packaging is essential.



GUYANA

Road access in Guyana is regularly hampered by periodic flooding. The country's extensive river network (left) offers an alternative means of delivery for products with a long shelf-life such as UHT juice drinks.

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FORMULATION AND TARGETED NUTRITION

Tetra Pak is adding value to school feeding programmes by working with customers to develop products tailored to meet specific local nutritional needs.

> School feeding programmes around the world make use of a wide range of beverages, from plain and flavoured milks to juices and other nutritious food. Tetra Pak has a strong track record of supporting our customers and collaborating with nutrition organisations and governments to develop fortified beverages specifically designed for use in schools.

This may be in response to food safety and logistical challenges; for example, supporting the development of a ready-to-drink solution from a product in powder format. In other cases, the aim may be to tackle specific nutritional needs or deficiencies. The examples opposite show how locally produced crops such as quinoa, corn, wheat, and soy cereal have been used to develop solutions in Central and South America and Africa.

PROTECTS WHAT'S GOOD™ This school feeding sample kit

from the Tetra Pak portfolio.

Designed to protect both the

nutritional value and the taste

of different options in format,

size and functionality, to ensure

we are always able to offer the

of the product inside, our

consumer - needs.

Tetra Pak has ten Product Development Centres around the world that provide highly flexible industrial pilot-plant facilities for processing and packaging trials, supported by experienced food technologists. Here, products can be tested on commercial equipment, ensuring fast and reliable results for easy scale-up. Activities include recipe formulation and development of novel food concepts, process optimisation and evaluation of different processing equipment, packaging and validation of innovative food products, and sample production for market evaluations.

By working closely in collaboration with customers, local organisations and nutritionists, we can support the development of unique product formulations and nutritious solutions that address local needs.





FORTIFIED BEVERAGES TO MEET LOCAL NEEDS

There are many examples of how we work with customers to develop innovative products targeted at local needs. Here are just a few.

COLOMBIA

Tetra Pak worked with the Colombian Institute of Family Well Being to develop Bienestarina, a liquid cereal milk beverage in Tetra Brik® Aseptic 200 Slim, fortified with vitamins, minerals and folic acid. This beverage was developed in order to solve the distribution challenges presented by a lack of potable water as well as to ensure food safety.

GUATEMALA

Tetra Pak partnered with the Nutrition Institute of Central America and Panama (INCAP) and our customer Alimentos S.A. to develop a ready-todrink version of Incaparina, a fortified corn and soy cerealbased beverage, to address distribution challenges in rural areas with no refrigeration and limited potable water. The product, packaged in Tetra Brik® Aseptic 200 Mid. is used in school feeding, social programmes and disaster relief efforts, and is also available commercially in Central America.

PERU

Tetra Pak collaborated with customer Laive to develop a fortified dairy beverage with cereals for the Ministry of Development and Social Inclusion's SFP. The new product, packaged in Tetra Brik® Aseptic 200 Slim, provided an alternative to powder for SFPs in areas lacking potable water and with infrastructure challenges. The ultra-high temperature (UHT) treated beverage ensured food safety and hygiene, increased acceptability by children and guaranteed uniformity of serving size.

NIGERIA

Tetra Pak collaborated with customer Good Hope International to develop Nutri Sip, a fortified liquid cereal beverage packaged in Tetra Brik® Aseptic 250 Base in order to improve the nutritional status of schoolchildren in one of Nigeria's poorest states. The beverage was developed as a blend of pre-cooked maize and soy isolates and was fortified with 27 vitamins and minerals including vitamin A, iron and zinc.



IMPLEMENTATION MANUAL MANUAL

This manual presents the protocols and processes involved in establishing an effective and sustainable school feeding programme. It is based on the experiences of Tetra Pak and Tetra Laval Food for Development in providing technical support for school feeding programmes worldwide, and covers organisation, implementation and management.

We would like to express our appreciation to all those stakeholders worldwide who have helped to enrich the manual by sharing their experiences and insights into all aspects of school feeding programmes.

PROGRAMME MANAGEMENT PAGE 18 2.3 SCHOOL NOMINATION, CONFIRMATION AND PREPARATION PAGE 24 2.5 STOCK MOVEMENT PAGE 34 **2.7 MONITORING**PAGE 42

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WAREHOUSE MANAGEMENT PAGE 30 BEVERAGE CARTON
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PROGRAMME MANAGEMENT

Establishing a school feeding programme organisational structure is the first stage of programme organisation. Two primary management entities – the programme owner and the implementation committee – will ensure a well-organised and implemented school feeding programme.

ROLES AND RESPONSIBILITIES

PROGRAMME OWNER

This is usually a ministry of the national government but could also be a stakeholder from the regional or local government, a non-governmental organisation (NGO) or a dairy or juice processor. Some examples are shown here:











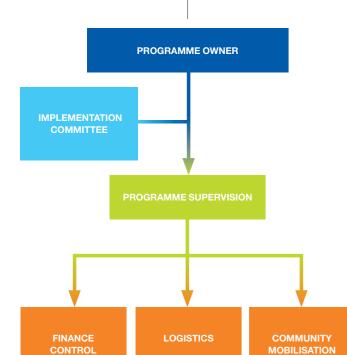
QaliWarma



Tetra Laval Food for Development (FfD) best practice recommends that a school feeding programme (SFP) implementation committee be created. This committee oversees the work of the senior management function on behalf of the programme owner. It receives reports and regular updates regarding programme activities and provides guidance as needed.

terms of reference, see Annex 1.

The committee is led by a chairperson, who represents the programme owner and has access to the politicians and officials responsible for the SFP. Other committee members represent a broad range of SFP stakeholders, which could include government ministries, private companies and non-profit associations. For an example of the committee's composition and





Committee members should be willing to promote the SFP within their parent organisation and be empowered to make decisions regarding any programme organisation/ implementation issues discussed during committee meetings. The committee should also liaise with all stakeholder organisations as well as potential collaborators, such as government ministries, the private sector and international donor agencies.

The committee meets regularly and may meet more frequently prior to implementation to help recruit and put in place the senior management function (if required), as well as to guarantee sustained communication between SFP stakeholders and to execute decisions taken during meetings in order to facilitate programme organisation.

Committee meetings can also be convened as needed; for example, to play a supporting role in a crisis situation, such as overseeing an audit, or supervising the implementation of emergency protocols if a student becomes ill due to food safety issues.

Members are not compensated for their involvement in the committee.



SENIOR MANAGEMENT **FUNCTIONS**

Functions associated with the organisation and implementation of SFPs are executed by personnel with qualifications and experience in specific areas of operational responsibility. The following functions collaborate closely to ensure a well implemented and managed SFP: programme supervision; finance control; logistics; and community mobilisation.

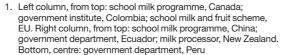
Programme supervision Manages the day-to-day administration of the SFP.

Responsibilities:

- Organise the internal activities of the senior management
- Prepare reports as required by the implementation committee and programme owner and provide progress updates at implementation committee meetings.
- Facilitate the preparation of financial and other reports for the funding organisation.
- Liaise regularly with SFP stakeholders and reach out to external organisations (such as potential SFP funders).

Requirements:

- Experience in managing people.
- Good understanding of supply chain management and the cost drivers in a distribution process.
- Knowledge of operational finance.
- · Good administrative skills.
- · Highly motivated.
- Capable of developing a roll-out plan to expand the SFP from a pilot to a national/large-scale initiative.



- Implementation committee. Myanmar
- Programme supervision and stakeholder meeting, Myanmar
- Finance control, Senegal
- Logistics, Peru
- Community mobilisation, Guatemala
- Product being consumed in school, Sri Lanka





Finance control

Manages all financial transactions associated with the SFP.

Responsibilities:

- · Communicate directly with the source of funding (if the government is funding the programme, this will be the Ministry of Finance).
- Draft the SFP budget and ensure all programme expenditures are in compliance with this document.
- Complete all accounting and procedures regarding the SFP's financial transactions.
- Ensure funding is available to pay suppliers on time and avoid disruption to the supply chain. Conduct internal audits and co-operate with

organisations designated

- to conduct external audits. Accounting systems vary between SFPs but in all cases the finance control collaborates closely with
- the logistics and community mobilisation functions to compile and analyse: Financial outlays for the
- purchase of school feeding beverages for targeted students. Information on stock levels in warehouses and in the
- storerooms of targeted schools. • Individual consumption data as registered during each day of feeding at targeted schools.

Requirements:

- Experience in putting together budgets for small- and largescale programmes or projects.
- Proficiency in the execution of financial audits.
- Effective communication skills.



Logistics

Ensures that all required food safety protocols are in place for school feeding beverage storage, and that sufficient quantities of the beverage are delivered from warehouses to the targeted schools' storerooms in a timely manner.

Responsibilities:

- Responsible for all logistical arrangements including warehousing and distribution infrastructure.
- Support the community mobilisation function during storeroom preparation at nominated schools.
- Collaborate with the programme supervision function in developing a roll-out plan to expand the SFP from pilot/local to a large-scale/national initiative (this may include estimating future storage needs, transport capacity and staffing required).
- Audit internal stock.
- Where the processor of the school feeding beverage does not deliver to targeted schools, the logistics function is responsible for establishing a warehouse infrastructure as needed.

Requirements:

- Practical experience in stock management.
- Effective communication skills.
- If the producer or distributor is responsible for delivering school feeding products to targeted schools, their personnel could perform all required activities associated with this function.



Community mobilisation

Manages all outreach activities and communication with targeted schools and communities.

Responsibilities:

Prior to implementation • Participate in the nomination of

- schools • Provide guidance to nominated schools to facilitate their selection to participate in the SFP.
- Validate nominated schools as having met the requirements to participate.
- Conduct outreach sessions and interact with local stakeholders to ensure community support for SFP organisation and implementation.

Once implementation is under way

- Ensure all relevant data (such as enrolment numbers, student weight and height) is collected from schools.
- Organise and participate in monitoring missions with stakeholders and external organisations
- Establish a structure for local and regional monitors who oversee distribution and consumption of feeding products at targeted schools.
- Recruit and supervise monitors engaged by the programme OWNER
- Liaise with targeted school communities to identify sustainability options.

Requirements:

- Excellent verbal communication skills to ensure strong support from targeted schools and communities.
- Strong writing skills for producing documentation for stakeholders.

DOCUMENTING SFP ORGANISATION AND IMPLEMENTATION

Preparing for the commencement of a new SFP is a complex process. The programme owner can prepare a worksheet that includes all recommended SFP organisation steps, along with goals, checklists and recommendations as appropriate (see Annex 2). This document should be regularly updated and provided to SFP stakeholders.

An effective SFP requires the completion of numerous objectives with associated activities. FfD has developed an example key performance indicator (KPI) table which provides a structured format for recording progress against each objective (see Annex 3). The KPI table can be shared with stakeholders periodically to keep them up to date regarding the SFP.

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Implementation committee terms of reference

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SFP organisation: activities, objectives and checklists template Page 52

KPI table

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MEASURING IMPACT

Collection and analysis of impact data is vital to prove the impact of school feeding programmes on student health, educational outcomes and the whole value chain. Demonstrating the benefits of school feeding programmes is key to ensuring sustainability.

> Organising and implementing a school feeding programme (SFP) requires a considerable investment of time, money and effort. Therefore, it is important that the programme owner and other stakeholders can demonstrate the impact of the programme. Verification of a positive effect on target groups is often necessary to justify continued funding and ensure SFP sustainability.

> During SFP organisation it is important to select indicators that will best measure programme impact. Recommended indicators are shown on these pages. The SFP management function will liaise with government and community stakeholders to ensure the collection of relevant data to measure the selected indicators before, during and after SFP implementation.

The same data should also be collected at the same intervals from control schools not participating in the SFP to quantify impact. In this regard, the SFP management function should liaise with the Ministry of Education to propose a selection of control schools with similar demographics and authorise their participation in data collection. The SFP management function will need to allocate resources to facilitate the collection of baseline and end line height and weight data from students in schools not participating in the SFP.

The data from all schools will be analysed by the SFP management function or by the Ministry of Education and Ministry of Health. Results are then submitted to the implementation committee.

In addition, it is important to collect and analyse relevant economic data such as local agricultural production and employment data to determine SFP economic benefits along the value chain. The programme owner could liaise with the Ministry of Agriculture to secure relevant statistics. For school milk programmes (SMPs), statistics regarding milk consumption, dairy production, dairy herd size, number of dairy cooperatives, etc. before and after implementation could be collected and analysed.

DEMONSTRATING IMPACT

Robust mechanisms for data collection and analysis are showing the impact of school feeding programmes on health, education and economic development.



1. HEIGHT/WEIGHT

Height and weight are good indicators of students' nutritional health and are easy to measure. This data can be collected at targeted and control schools by school staff, Ministry of Health personnel or community volunteers. Another option is for students to be weighed and/or measured at a local health facility.

☑ Results

- Data collected in Vietnam demonstrated an increase of 8.1% in weight and 3.4% in height during a 17-month period between targeted and control students.
- Data collected in Pakistan demonstrated a 6cm height increase and 2.8kg weight increase in targeted students as compared with 5.1cm and 1.9kg in control students.



2. SCHOOL ENROLMENT

Changes in student numbers enrolled from one academic year to the next can be calculated by the SFP management function or by the Ministry of Education at the start of each academic year.

☑ Results

- Enrolment in the Yangon region in Myanmar at targeted schools increased by 2.5% compared with 0.1% at control schools.
- Enrolment in Nairobi County in Kenya at targeted schools was 55% higher than for control schools. In Mombasa County, average enrolment increased by 25%; in Meru County by 20%; and in Embu County by 14%.



3. CLASSROOM ATTENDANCE

This information is collected daily by teachers and can be provided by the Ministry of Education or collected directly from schools.

✓ Results

- In Zambia, attendance increased by 7.6% and the number of children leaving school early fell from 35% to 1.8%.
- In Bangladesh's Jamalpur district, the rate of attendance increased from 43% to 82%.
- Measuring height and weight, Vietnam
- School enrolment. Kenva
- Classroom attendance, Myanmar
- Measuring product acceptability, Guyana

4. PRODUCT ACCEPTABILITY

Surveys by trained teachers in selected schools can measure students' acceptance of a chosen beverage.

- A survey of 555 children in Myanmar in 2017 indicated 96.6% acceptance of milk.
- A survey of 40 children in Guatemala in 2010 indicated 97.5% acceptance of Incaparina.
- A survey of 151 children in El Salvador in 2009 indicated 96% acceptance of Incaparina.

Annexes

Beverage acceptability survey form Page 64





5. THE DAIRY SECTOR

Programmes using milk are helping to build sustainable value chains and have a significant positive impact on the dairy sector in the countries where they operate.



SMPs were first launched in China in 2000. As well as the measurable impact on children's health, programmes have had a transformative effect on the country's dairy sector.

- Number of children 14,592,800
- Beverage White and flavoured milk
 Programme funder Parents and government
 Results
- Milk production up from 200 million to 1 billion litres.
- Number of dairy cattle increased from 4.6 million to 6.9 million.
- Number of dairies increased from 700 to 1,600.
- Dairy farmers' total income up from US\$2.15 billion to US\$3.24 billion



THAILAND

School milk was first introduced in Thailand in 1992. The impact on the domestic dairy sector has been very significant: by 2019, 40% of the total milk produced in the country was being used for SMPs.

- Number of children 7,200,000
- **Beverage** Milk
- **Programme funder** Government

✓ Results

- Number of dairy cooperatives: 117 in 2009 compared with 62 in 1996.
- Demand for milk: Increased from 290 million litres in the early 1990s to 1,146 million litres in 2013.
- Per capita milk consumption: 29 litres in 2009 compared with 2 litres in 1984. There was a 6% increase annually between 1996 and 2006.



SCHOOL NOMINATION, CONFIRMATION AND PREPARATION

Best practice includes taking a methodical approach to school selection, preparation and communication with local communities during implementation. A five-step process can be followed to promote community involvement and ensure effective programme management.

THE FIVE STEPS **IN SUMMARY**

Nominate schools

- Establish selection criteria
- Collect information
- Make nominations





Notify nominated schools and communities

- Send community information letter
- Conduct school and community meetings

Mobilise nominated schools and communities

- Explain tasks and responsibilities
- Prepare a storeroom
- Select a school focal person







Confirm nominated schools

 Inspect schools Confirm requirements fulfilled (includes preparing a storeroom and identifying a school focal person)

Prepare confirmed schools

- · Orientate school stakeholders (SFP overview)
- Conduct parent information meeting
- Sign programme agreement
- Train school focal person Orientate students (consumption and postconsumption)



- Nominated school, Czech Republic
- Parent/teacher information meeting, Myanmar
- School mobilisation, Myanmar Community stakeholder meeting, Ghana
- Teacher training, Malaysia



Community meeting, Nigeria



SFP nominated school, Myanmar

STEP 1. **NOMINATE SCHOOLS**

The school feeding programme (SFP) funding organisation and/or programme owner establishes the criteria for schools joining the programme. These may include:

- vulnerable population;
- geographic location;
- socio-economic status and/or age of targeted students; and
- potential for expanding the SFP over time.

The SFP management function secures information on potential schools based on these criteria from the appropriate department in the Ministry of Education or local authorities. Points to consider during the school nomination

- potential for clustering schools to reduce distribution and monitoring costs;
- proximity to warehouses/depots; and
- numbers of students at schools.

STEP 2. **NOTIFY NOMINATED SCHOOLS AND COMMUNITIES**

Once schools have been nominated, it is vital to ensure the SFP is accepted and endorsed by the entire community and that community stakeholders become active participants in programme organisation and implementation. Two key steps are recommended to prepare the school and local community.



Stage 1: Community information letter

This is the initial communication from the programme owner to the community, informing them that their school has been nominated to participate in the SFP.

Prepared by: SFP management function (signed by an authorised Ministry of Education official or representative of the programme owner). Sent to: local government authorities, parent teacher organisation, local community leader (this may be a religious leader, village elder, party chairperson, etc.) and the nominated school. Purpose: to provide comprehensive, clear information about the programme and ensure transparency about its purpose.

The letter should contain:

- A brief description of the background to the SFP, including information on the programme owner and source of funding.
- A presentation of key programme information (including targeted students, timeline and programme objectives).
- Detailed information on the school feeding beverage (ingredients, production process and producer as well as nutritional benefits)
- Information on aseptic packaging, including how it protects contents and ensures longer shelf-life.
- A request for programme stakeholders to organise community meetings at which a detailed explanation of the programme can be presented.

Stage 2: School and community meetings

This is an opportunity for the SFP management function (and possibly implementation committee members) to meet nominated school personnel and community stakeholders for the first time to introduce and discuss the programme. Organised by: SFP management function and local community leaders (note it is helpful if the invitation comes from community leaders). Venue: individual nominated schools or a centralised location where representatives from several schools can attend.



School mobilisation meeting, Myanmar

Attended by:

- SFP management function representative(s) to provide information regarding the SFP (and a member of the implementation committee if possible).
- Traditional ruler/religious leader/village elder/ party chairperson.
- Representatives of the local/district government.
- Representatives of the local education office.Members of the nominated school(s) parent
- teacher organisation(s) or school committee(s).

 Administrators and teachers from nominated
- Administrators and teachers from nominated school(s).
- Others, as appropriate.

The presentation should include:

- Background to the SFP (for example source of funding, programme ownership and how it will be implemented).
- Comprehensive information about the school feeding beverage (a tasting session could also be included).
- Overview of the benefits of the SFP for agricultural development/job creation, if relevant.
- Activities that schools must complete to participate in the SFP (see list below, in Step 3).
- Information on the documentation schools must maintain during implementation.

- Explanation of the requirement for communities to create a plan to support the long-term sustainability of SFP implementation at their school, to be presented as a first draft within 12 months of the start of implementation.
- Activities that communities could perform to support the SFP (see list opposite, in Step 4).

STEP 3. MOBILISE NOMINATED SCHOOLS AND COMMUNITIES

In order to be confirmed on the SFP, nominated schools are expected to:

- Identify and prepare a storeroom to warehouse the beverage cartons distributed by the SFP (see below for a brief guide to preparing an SFP storeroom).
- Select a school focal person who will be responsible for organising the programme and implementing agreed protocols at the school.
- Distribute beverage cartons and monitor student consumption.
- Register individual consumption data for each day.
- Collect and properly dispose of empty beverage cartons in compliance with agreed protocols (see Beverage Carton Package Disposal, page 46).

PREPARING A STOREROOM

- Solid walls and floor (brick and cement).
- Well-constructed roof with no leaks and no sunlight visible.
- Secure doors and windows to deter theft.
- Shelves and pallets to avoid storing beverage cartons on the floor.
- Pest free (door jambs, window screens and regular cleaning).



School storeroom,



School inspection, Ghana

STEP 4. CONFIRM NOMINATED SCHOOLS

Before a nominated school can be confirmed for the SFP, it must be visited by a delegation from the SFP management function and other relevant stakeholders. During this visit, the team will confirm whether the school meets the requirements presented at the school and community meeting, including selecting a school focal person and preparing a storeroom. This information is then included in an inspection report. You can see an example of a school inspection report in Annex 5.

Once a nominated school completes the activities listed under Step 3 (see previous page) and this has been verified by the SFP management function, the school is confirmed to participate in the programme. Confirmed schools then prepare for SFP implementation.

Once a school is confirmed to participate in the programme, the community is expected to gradually assume responsibility for implementing certain components. Increasing the community's sense of ownership in this way makes the programme stronger and potentially more sustainable. It also means the community is more likely to follow proper guidelines in the event of a crisis such as a student falling ill due to food safety issues (see page 40).

Support from the community will vary by programme location, but all communities are expected to contribute resources to the implementation of the SFP to ensure its sustainability. Community stakeholders are asked to present recommendations to the SFP management function about how they can become involved.

Community support could include:

- Transporting beverage cartons from the warehouse to the school.
- Assisting teachers in measuring and registering the height and weight of students.

- Selecting local monitors to oversee implementation and collect and forward individual consumption data to the SFP management function.
- Contributing in part or in full to the cost of the beverage cartons distributed by the programme.
- Supporting supplementary activities at targeted schools (for example, donating furniture, purchasing educational materials, buying sports equipment or financing school renovations).

It may also be possible for communities to take administrative and financial responsibility for other components of the programme, which will further increase ownership and promote sustainability.

PREPARE CONFIRMED SCHOOLS

There are three stages to complete before implementation can begin. Representatives of the SFP management function should visit each confirmed school and:

- Present an orientation session for school personnel (the SFP agreement will be signed after this session).
- Assist the school to organise and conduct a family information meeting.
- Train the school focal person in the handling of beverage carton cases during unloading and storage. The key points are listed in the boxout on page 28.
- Train the school focal person in classroom distribution procedures, pre-consumption activities, beverage consumption and postconsumption protocols (such as data registration and empty package management). The school focal person is responsible for sharing this information with teachers.

If time allows, the school focal person should also prepare students for beverage consumption.

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Teacher training in Sri Lanka

Stage 1: Orientation for school stakeholders

The organisation and execution of this session is essential for providing school stakeholders with an overview of the SFP, the specific requirements associated with implementation and their role in programme sustainability.

Organised by: SFP management function with support from the programme owner (for example, Ministry of Education, Ministry of Agriculture). Venue: Individual confirmed schools or a centralised location where representatives from several schools can attend.

Attended by:

- SFP management function (responsible for delivering the presentation).
- School director/principal.
- Designated school focal person (identified during Step 3, page 26). See Beverage Carton Consumption, page 38, for more about this role.
- Teachers.
- Parent teacher organisation/school committee/ school board representatives.

The presentation delivered during the school and community meetings (see Step 2, Stage 2, page 25) can also be used and the topics presented include:

- Background to the SFP, including funding, programme ownership and implementation.
- Comprehensive information about the school feeding beverage (with optional tasting session).
- Information on the documentation schools must maintain during implementation.
- Explanation of the requirement for schools and communities to create a plan to show long-term sustainability of SFP implementation, to be presented as a first draft within 12 months of commencement of implementation (see list of community support activities in Step 4, on page 27).

The meeting should also cover:

 The responsibilities of confirmed schools and communities in terms of organising and implementing the SFP (for example, signing up to and abiding by the SFP agreement), conducting

SAFE HANDLING OF BEVERAGE CARTON CASES: KEY POINTS

- No standing or sitting on cases.
- No throwing of cases.
- No placing of heavy items on cases.
- Specify number of cases that can be stacked.
- Cases to be stored horizontally on pallets or shelves away from direct sunlight, excess moisture and exterior walls.
- Any leaking cartons to be removed from the case and remaining cartons cleaned.
- a family information meeting (see Step 5, Stage 2, below), presenting the SFP to parents and ensuring the school focal person and key staff are trained and understand their responsibilities.
- The implementation responsibilities of SFP management functions, the programme owner and other stakeholders.
- The requirement to co-operate with national and regional monitors.

It is vitally important that each school's director/ principal, programme focal person and staff understand what is required of them in order to make the SFP a success, including representing the SFP to parents and the local community.

At the end of the orientation session, the school principal/director should acknowledge understanding of the guidelines and sign the SFP agreement. This outlines the school's obligations to the SFP and the potential sanctions if these obligations are not met (for example, warning letter, suspension or expulsion from the SFP). All parties should sign the agreement prior to implementation. See Annex 6 for an example SFP agreement.

Stage 2: Family information meeting

This an opportunity for the school to meet with students and their families to discuss the SFP. *Organised by:* The parent teacher organisation/school committee, which is also responsible for informing parents about the meeting.



Classroom,

Venue: Individual schools. Attended by:

- The parent teacher organisation/school committee (to host the meeting and lead the discussion).
- SFP management function representative (to deliver the presentation).
- Students and their parents.

The presentation should be based on material shared during school and community meetings (see Step 2, Stage 2, page 25), and focus on the ready-to-drink beverage the students will be consuming.

In accordance with Food for Development best practices, parent teacher organisations or school committees are actively involved in programme oversight. This includes overseeing beverage consumption at school and confirming that their children have received beverage cartons on consumption days. They should also understand that if they become aware of any irregularities, they should inform the school director/principal and the SFP management function. This provides an extra safeguard against mismanagement and fraud.

Stage 3: Training of the school focal person

Before implementation, the SFP management function should train the nominated school focal person and an assistant from each confirmed school (each school should have nominated staff members or community members for these two roles following the school and community meetings as presented in Step 3, page 26). Other key staff may also attend the session. The school focal person can then train other personnel at the school and in the community so they understand the duties and processes involved.

The school focal person is responsible for:

- Ensuring the storeroom meets SFP requirements (see page 26) and is ready to accept deliveries of beverage cartons.
- Facilitating collection of student height and weight data at the start of implementation

(preferably during the first month) and at the end of the school year (see page 20).

- For each stock delivery, confirming the number of cases and individual units received, verifying that they are in good condition and signing the delivery waybill. Schools should not accept damaged, spoiled and/or leaking packs and should report this immediately to the SFP management function and the beverage processor.
- Registering stock movements in the stock ledger (see page 32), classroom consumption form and monthly consumption report (see page 40).
- Ensuring stacking of beverage carton cases does not exceed the level recommended by the processor.
- Organising and distributing the correct number of beverage cartons to targeted students each day and ensuring they are consumed in compliance with SFP protocols.
- Supervising the disposal of damaged stock and empty beverage cartons (see page 46).
- Collate and manage all school-level data required for the SEP.

It is also recommended that the school focal person, with assistance from teachers, provides an orientation session for targeted students before implementation. The session should cover all practical aspects of consumption, from shaking the beverage carton and inserting the straw, and post-consumption, including folding and disposing of empty beverage cartons in the receptacle provided. Students should also be advised to stop consumption if the beverage tastes bad.

Annexes

Annex 5
 School inspection report

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SFP agreement Page 66 30 | School Feeding Handbook Warehouse management | 31

2.4 WAREHOUSE MANAGEMENT

The effective storage and management of beverage carton cases by beverage processors, the programme owner and/or distributors is essential to ensure food safety and accountability. The warehouse management function will ensure compliance with the requirements for transferring beverage stock and proper stock level management.

Structure

The warehousing structure chosen will depend on the number of schools participating and the geographical scope of the school feeding programme (SFP), as well as on where the ready-to-drink beverage is produced. In cases where the beverage cartons are delivered by the beverage processor, there will be no need for the programme owner or distributor to provide warehousing.

The diagram below shows a single-layer warehouse structure, but the practices described in this section also apply to structures with primary and secondary warehouses.

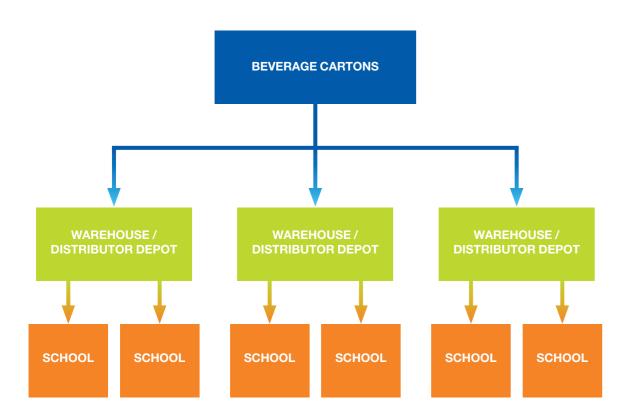
Warehouse requirements

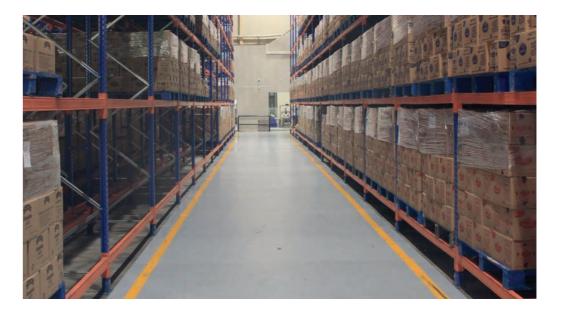
If the processor of the school feeding beverage is responsible for warehousing, the SFP logistics function should visit the depot periodically to verify that conditions comply with the requirements outlined in this section.

If the processor is not responsible for warehousing, the logistics function is responsible for identifying and preparing a suitable warehouse and employing staff. The warehouse should be located centrally in the area it will supply and will require staff and facilities as outlined below.

Example warehouse structure

This diagram sets out a simple, single-layer warehouse structure:





Beverage cartons stored in a warehouse, Sri Lanka

Facilities

- Solid walls and floor, watertight roof.
- Sufficient ventilation (windows or fans).
- Secure windows and doors (security staff should also be used, if necessary).
- Pallets or shelves for storing cases of beverage cartons (cases should not be stacked on the floor).
- Adequate storage capacity with shelves and pallets strong enough to hold the required number of cartons.
- Cleanliness maintained and regularly inspected for vermin.

Staffing

Each warehouse requires a warehouse officer (see right), who reports to the SFP logistics function.

There may also be value in employing a part-time warehouse assistant (temporary or permanent, depending on requirements) for larger stock movements or stocktaking. In addition, temporary workers can be used as needed for loading delivery vehicles.

Security staff may be needed at some warehouses. In this case, they can be employed directly or through a security company.

Receiving new stock

When new stock is ordered:

- The SFP logistics function should agree with the supplier an appropriate time to receive the delivery and inform the warehouse officer.
- If necessary, the warehouse officer ensures temporary workers are available to help with off-loading.
- The warehouse officer ensures shelves and pallets are available for the new stock, following the "first in, first out" rule to ensure no stock reaches its expiry date in the warehouse.

When stock arrives at the warehouse:

 During unloading, all staff to ensure that cases are stacked no higher than the recommended

RESPONSIBILITIES OF THE WAREHOUSE OFFICER

- Engages warehouse assistant and/or temporary workers as required and evaluates the security needs of the warehouse, employing security staff if necessary.
- Receives beverage carton cases at the warehouse from the processor or their distributor.
- Ensures accountability by maintaining a warehouse ledger/stock sheet (see Annex 8).
- Prepares weekly stock level report and presents this to the SFP logistics function.
- Sends beverage stock to schools or other storage facilities, prepares delivery waybills before stock leaves and informs school focal persons or managers of storage facility of delivery scheduling.
- Ensures the warehouse meets all requirements presented above.

number of levels presented on the cardboard case that contains the beverage cartons.

- Incoming stock is marked with expiry dates and arranged so these are easily visible (either by writing on the cases or attaching a tag to the pallets).
- The warehouse officer verifies that the number of beverage carton cases corresponds with the number on the waybill, and registers this information in the warehouse ledger/stock sheet and stock level report.



Secure storeroom with windows to ensure adequate ventilation, Nigeria 32 | School Feeding Handbook Warehouse management | 33



Transferring stock

The SFP logistics function informs the warehouse officer about the timing, quantity and destination of stock to be transferred out of the warehouse.

Note: In a large-scale SFP, the warehouse officer takes day-to-day responsibility for stock movements, involving the SFP logistics function only when needed.

Delivery waybill

Based on information from the SFP logistics function about stock deliveries out of the warehouse, the warehouse officer prepares a delivery waybill. You can see an example of this document in Annex 7.

The delivery waybill must show:

- reference number;
- date of delivery;
- name/number of issuing warehouse;
- name of delivery driver;
- name of receiving school/s (and/or warehouses/ depots); and
- number of cases being delivered to each school or storage facility.

Two copies of this document should be issued. The warehouse officer and the driver should sign both copies. The SFP logistics function retains copy 1; copy 2 is taken by the driver and is countersigned by the receiving school focal person or director/principal (or by the receiving warehouse officer if delivering to another warehouse/depot).

Stock level management

There are two key documents involved in managing stock levels: the warehouse ledger or stock sheet and the weekly stock level report.

The warehouse ledger or stock sheet (see Annex 8) is completed by the warehouse officer after each stock movement and records:

- date of stock movement in or out;
- quantity of stock loaded onto delivery vehicle;
- destination of all stock deliveries; and
- any damaged stock received from the producer.

At the end of each week, the warehouse officer collates these reports and the delivery waybills to give a weekly stock level report, which they sign and pass to the SFP logistics function. This report includes information on:

- stock received;
- stock taken from the warehouse and delivered;
- discarded or damaged stock; and
- current stock levels.

Stock replenishment

The warehouse officer is responsible for determining what warehouse stock levels should trigger an order to replenish the stock of beverage cartons. For example, this might be when there is less than a month's supply left in the warehouse.

The decision about when to order new stock should take into account:

- current stock levels (as shown in the weekly stock level report);
- the lead time between placing orders and receiving a delivery from the producer; and
- anticipated future beverage consumption of schools in the SFP.

Correct stacking of cases containing beverage cartons, Myanmar



Posters from Myanmar (left) and Zambia (right) illustrating best practice in handling and storage Over time, consumption levels should become easier to anticipate and the key elements in the stock movement process (see page 34) will be established so that stock replenishment becomes an automatic routine.

Warehouse auditing

Warehouse auditing is the responsibility of the SFP logistics function (audits may also be conducted by a member of the implementation committee for increased credibility) and is a way of verifying that the reports received from the warehouse officer are correct. Audits should be conducted quarterly, with an overall audit at the end of the school year. During audits, the information in the warehouse ledger/stock sheet should be reconciled with delivery waybills, entries in selected school ledgers and the actual beverage carton stock on hand at a given school.

Managing damaged and expired stock

Beverage cartons can become damaged during transport or due to poor storage (for example, because of rodents and insects in the warehouse, or collapsing shelves or pallets).



Beverage cartons become "expired" if they are not consumed by the recommended date. If this occurs, it suggests that either too much stock has been delivered and/or the "first in, first out" principle has not been followed. In schools, the school focal person is responsible for ensuring the correct amount of beverage carton cases is delivered and that they are consumed before the expiry date. In warehouses, the warehouse officer is responsible for following the "first in, first out" principle. In both cases it is important that the expiry date is visible on the beverage carton or displayed on the secondary packaging or pallet.

Damaged, bloated and expired beverage cartons at the warehouse should be registered in the warehouse ledger/stock sheet and the stock level report. It is the warehouse officer's responsibility to separate and dispose of any damaged or expired beverage cartons and to report this to the SFP logistics function as soon as possible. In addition, the SFP logistics function should be informed immediately of any damaged or bloated beverage cartons that are delivered to the warehouse.

Annexes

Delivery waybill

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Warehouse ledger/stock sheet Page 70

34 | School Feeding Handbook Stock movement | 35

2.5 STOCK MOVEMENT

The beverage processor, programme owner or designated distributor will be responsible for the transportation of beverage carton cases from warehouses to schools or storage facilities. If the programme owner is responsible for this task, the logistics function has overall responsibility for stock movement.

KEY ELEMENTS

The key elements required for efficient stock movement are:

- full compliance with proper food safety and product stacking guidelines;
- access to viable delivery vehicles (in good condition with sufficient capacity);
- delivery personnel;
- clear distribution routes;
- scheduling of deliveries; and
- regular maintenance and refuelling.

Delivery vehicles

Cases of beverage cartons will either be delivered by the processor of the school feeding product or by a distributor engaged by the school feeding programme (SFP) management function. Other transport options include beverage carton cases being retrieved from storage facilities by vehicles provided by local/regional government or by community members. Delivery vehicles may include two-tonne trucks, pick-up trucks or other options. Examples of delivery vehicles are shown throughout this section.

Delivery personnel

Depending on workload, delivery personnel can be engaged on a temporary or permanent basis, as decided by the SFP logistics function.

Once the delivery waybill has been signed to show that stock has left the warehouse, delivery personnel are responsible for the beverage cartons on the delivery vehicle. Beverage cartons must be properly secured, especially if the delivery route includes unsurfaced roads, and they should be covered to protect against inclement weather.

In cases where the delivery schedule takes more than one day to complete, delivery personnel should ensure that the delivery vehicle is parked in a secure location overnight.



Loading a delivery vehicle, Malaysia

Distribution routing

Distribution route planning is the joint responsibility of the SFP logistics function, the warehouse officer and delivery personnel. Route planning will be influenced by:

- the number of beverage carton cases to be delivered;
- the distance from the storage facility to targeted schools; and
- proximity of the targeted schools to each other.

In order to estimate expenditure on fuel and calculate transport allowances it is recommended that delivery personnel carry out a "test drive" to verify the locations of targeted schools and assess road conditions. Routing should allow the same delivery vehicle to deliver beverage carton cases to schools that are located close to each other.

MAKING USE OF GPS

It is recommended that GPS (Global Positioning System) technology is used to plan school delivery routes and frequency by the programme owner, beverage processor or distributor. GPS technology may be particularly useful in facilitating delivery to schools in rural areas.



Scheduling deliveries

Creating a delivery schedule is the responsibility of the SFP logistics function. The frequency of deliveries should be based on the capacity of storerooms at targeted schools and take into account school consumption reports, stock levels (as recorded in school storeroom ledgers) and warehouse stock sheets.

The use of ultra-high temperature (UHT) technology in the beverage production process means there is no need for a cold chain. This enables less frequent deliveries and long-term storage: typical shelf-life is between 6 and 12 months. This is particularly helpful in ensuring access for rural schools. UHT technology is also vital in maintaining food safety and nutritional value.

Frequency of beverage carton deliveries will also depend on the location of targeted schools in relation to warehouses. In countries where accessibility of roads varies throughout the year (for example, where roads flood in the rainy season), larger volumes of stock could be delivered before schools become inaccessible, provided storerooms have sufficient capacity. Frequency of distribution can also have a direct impact on cost.

School consumption reports will enable the SFP logistics function to determine how long a given targeted school can sustain feeding with their existing beverage carton stock. The warehouse ledger/stock sheet (Annex 8) indicates how much product the SFP logistics function has available for distribution.

If possible, delivery of beverage carton cases should take place during working hours so that the school focal person can be present to oversee the off-loading.

Maintenance and refuelling

The warehouse officer is responsible for the maintenance of all vehicles affiliated with their warehouse and should establish a maintenance schedule to ensure all delivery vehicles are in good working order and are regularly inspected and serviced. Delivery personnel should report any damage to the delivery vehicle to the warehouse officer.

If damage occurs during a delivery run, or a delivery vehicle breaks down, delivery personnel should immediately inform the SFP logistics function, which is responsible for making any necessary arrangements regarding the continuation of deliveries and/or dispatching a mechanic.

In cases of minor damage (for example, a flat tyre), the issue should be resolved on the spot by delivery personnel if possible. Providing delivery personnel with a cash advance ensures they can meet unforeseen expenses in the event of an accident or breakdown. In such cases delivery personnel should keep receipts for any services supplied by a mechanic or similar and, on their return to the warehouse, submit the receipts against the advance.

When planning distribution routes, the SFP logistics function should estimate fuel needs based on the length of delivery routes to targeted schools. This information is supplied to the SFP finance function, which is responsible for providing delivery personnel with a travel allowance to cover refuelling costs.

Delivery truck,



Passenger car used as delivery vehicle, Myanmar.

MOVING BEVERAGE CARTON CASES TO A SCHOOL

Preparation

Before delivery, the SFP school focal person is informed by the warehouse officer of the approximate time of delivery and the amount of beverage carton stock to be delivered. It is the responsibility of the school focal person to:

- prepare the storeroom by rearranging the existing beverage carton cases on a "first in, first out" basis;
- ensure that school staff, community members and temporary workers (if applicable) are available to help with off-loading when the delivery vehicle arrives; and
- verify that the delivery vehicle can enter the school grounds and park close to the storeroom.

Delivery arrival

Once the delivery vehicle arrives at the targeted school, it is the joint responsibility of delivery personnel and the SFP school focal person to count the number of beverage carton cases being off-loaded from the delivery vehicle. The total number must correspond to the quantity stated in the delivery waybill for the given school. Once this is confirmed, the school focal person can sign the waybill to confirm receipt and register the cases received in the school ledger. Damaged, bloated or expired packs received are also registered.

Annexes

Warehouse ledger/stock sheet Page 70

MOVING STOCK TO OTHER **WAREHOUSES AND SCHOOLS**

Beverage carton cases may need to be moved between warehouses if consumption in a certain area has been higher than estimated (for example, because of the inclusion of new schools in the SFP and/or an increase in enrolment at existing schools). Stock may also need to be moved where:

- the feeding product processor has delivered more beverage carton cases to one warehouse than to other storage facilities; or
- there is a lack of storage space at schools, so beverage carton cases are stored at a larger school and delivered daily to those schools without storerooms in the area.

Routines for stock movement between warehouses are similar to those for stock movement between a warehouse and targeted schools.

Preparation

Prior to delivery, the originating warehouse officer informs the receiving warehouse officer of the approximate time of delivery and the number of beverage carton cases. It is the responsibility of the receiving warehouse officer to:

- prepare the receiving warehouse by rearranging existing stock on a "first in, first out" basis; and
- ensure that temporary workers are available to assist with off-loading when the delivery vehicle arrives.

Execution

Once a delivery vehicle arrives, it is the responsibility of the warehouse officer to count the number of beverage carton cases being off-loaded. This number must correspond to the quantity stated in the delivery waybill. Once the correct number of cases has been loaded into the warehouse, the warehouse officer countersigns the delivery waybill that the transporter will provide to the SFP logistics function. The warehouse officer subsequently enters the number of beverage carton cases received into the warehouse ledger/stock sheet.



Schools that are confirmed to participate in school feeding programmes are provided with procedures to guide the introduction of the ready-to-drink beverage, as well as pre-consumption, consumption and post-consumption activities.

REGISTERING CONSUMPTION

Teachers

In order to manage supply and delivery efficiently, it is important that every school keep a register of individual consumption of beverage cartons by students (note that this information can also be used when selecting students for impact analysis in the future). Teachers should do this for their classes each morning using a monthly class attendance and consumption form.

For an example, see Annex 9. Another option is to register individual consumption on the classroom attendance form mandated by the school or Ministry of Education.

EXAMPLE OF A SCHOOL STOREROOM LEDGER

Name of school School focal person

Date	Stock IN/OUT	Ref. no. (class or delivery/ waybill note)	Quantity of cases/ packs (delivered)	Quantity of spoiled cartons	Packs to classroom	Stock level (cartons)
1/2/20	OUT	CI 1		2	25	123
1/2/20	OUT	CI 2		0	25	98
1/2/20	OUT	CI 3		0	26	72
2/2/20	IN	DN 4408	2/200			272
2/2/20	OUT	CI 1		0	26	246
2/2/20	OUT	CI 2		3	25	218
2/2/20	OUT	CI 3		0	26	194
3/2/20	OUT	CI 1		0	26	168
3/2/20	OUT	CI 2		0	25	143
3/2/20	OUT	CI 3		2	26	115



Retrieving

Senegal

beverage cartons from a storeroom,

School focal person

Once the school focal person has collected attendance numbers for that day from classroom teachers, they can issue the correct number of individual beverage cartons from the school storeroom to each classroom.

This information should be recorded in the school's storeroom ledger. See left for an example of a completed storeroom ledger. This school has three classes. The portion packs are delivered in cases of 100. The school began the month with 150 cartons in the storeroom.

Teachers are responsible for filling out individual consumption forms (or including consumption information on classroom attendance forms). The school focal person is also responsible for calculating and recording the school's total monthly consumption and ensuring stock is maintained at a suitable level.

Note: The running total of stock level of cases is used for stock delivery



STUDENT CONSUMPTION

Beverage introduction

It is essential that parents be given detailed information regarding the school feeding beverage during the school feeding programme (SFP) orientation process and prior to consumption. This gives parents the opportunity to provide information regarding any allergies or intolerances It is extremely important to ascertain whether a child is lactose intolerant or lactose sensitive, or allergic to other beverages.

We recommend that students be given half the contents of a beverage carton during the first week of SFP implementation as a precaution. Teachers should closely supervise students to verify that no one has a reaction to consuming the beverage. With milk consumption, some students may experience some discomfort initially. If this discomfort stops after a few days of consuming half portions, the student is lactose sensitive. If this discomfort continues, the student could be lactose intolerant and should not consume milk. Parents should be notified.

The orientation process

Prior to the start of SFP implementation, it is recommended that an orientation is provided to targeted students. Recommended topics include:

- Details regarding beverage carton contents (type of beverage; nutritional value; ultra-high temperature (UHT) processing; and aseptic packaging overview).
- Pre-consumption activities (confirming that the beverage carton is not bloated; verifying expiry date; shaking the carton; removing the straw from its plastic wrapping while avoiding handling either end with bare hands; and inserting the straw into the beverage carton).
- Consumption protocols (drinking the beverage immediately after inserting the straw; stopping consumption if the taste is "bad"; and finishing beverage carton contents if the taste is "good").
- Post-consumption procedures (shaking the beverage carton to ensure it is empty; folding the empty package; and putting the folded package in the designated bin/receptacle).

The school focal person, with the assistance of teachers, can provide the orientation. If it is not possible to deliver the orientation prior to the start of SFP implementation, it should be done during the first day of beverage consumption.

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Monthly attendance and consumption Page 72

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Monthly school consumption Page 74



Milk consumption and package disposal instructions, 7ambia

Scheduling

We recommend that beverage consumption take place in the morning (or at the start of the shift if the school runs on a two-shift system) so that students benefit from increased nutrition throughout the school day. If there are problems with students leaving school early after consumption, sanctions could be imposed or consumption time could be changed to prevent this from happening.

Location

We recommend that students consume the beverage in the classroom, supervised by a teacher. An alternative could be during morning assembly in the school yard, with adequate supervision. Students should consume the contents of the entire beverage carton and should not be allowed to take beverage cartons outside the area designated for consumption.

Negative reactions

If a student feels nauseous or becomes ill while consuming the beverage, the following emergency protocols should be implemented:

- The student should stop beverage consumption immediately.
- The teacher should register the student's name and all details (when, where, what) regarding the negative reaction.
- 3. Parents should be notified.
- 4. The teacher should contact a medical professional and make arrangements for the student to be examined as soon as possible.
- **5.** The teacher should closely supervise the student until they are examined by the medical professional.
- **6.** All teachers should monitor other students to ascertain whether they fall sick or complain of nausea after beverage consumption.



2.7 MONITORING

Establishing a formal system for efficient monitoring and data collection ensures accountability of the school feeding programme. Collecting information, both quantitative and qualitative, is vital. Effective distribution depends on schools providing the correct figures for student registration and consumption. This data is also used to check compliance and as reference information for programme evaluations.

SCALE AND SCOPE OF THE MONITORING SYSTEM

While all monitoring systems should follow the same basic structure (see diagram below), the capacity needed will depend on:

- the scale of the school feeding programme (SFP);
- the extent to which the community participates in monitoring (self-monitoring); and
- the capacity of schools to collect and transmit data to the SFP management function.

The SFP management function should decide how comprehensive a monitoring system is needed for each SFP. This may vary over time. For example,

during the initial implementation phase when new schools are being added and routines are not yet fully embedded, there may be a need for additional monitoring. Monitoring may also need to be intensified during evaluations or impact studies that require the collection and collation of specific data.

ORGANISATIONAL SET-UP

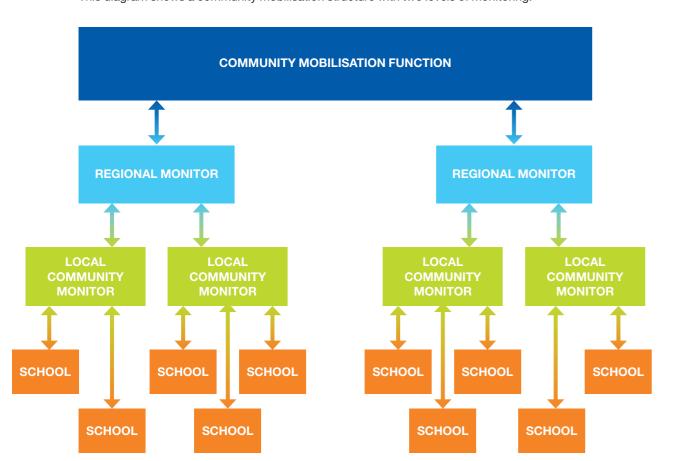
The SFP community mobilisation function is responsible for establishing and managing the monitoring system. The organisational chart below presents two levels of monitoring, regional and local.

School monitoring interview, Dominican Republic

Document inspection, Myanmar

Example community mobilisation structure

This diagram shows a community mobilisation structure with two levels of monitoring:







Regional monitors

Responsibilities: Managing data within specific regions targeted by the SFP. Duties include:

- Collating weekly consumption reports from local monitors into regional school consumption reports and presenting these in the agreed format to the SFP management function.
- Undertaking pre-programme inspections, pre-programme monitoring and regular visits to schools with local monitors.
- Supporting the SFP management function during community sensitisation meetings.
- Conducting information meetings with stakeholders in their region.
- Participating in recruitment and training of new monitors.

Requirements:

- Good organisational skills.
- · Computer skills.
- Good writing skills for report preparation.
- Excellent communication and interpersonal skills (for training school focal persons and representing the SFP in targeted communities).
- Experience in one or more of education, health and nutrition, project management.

This may be a permanent full-time position or parttime, depending on SFP size and scope.

Local community monitors

In line with Food for Development best practices, it is recommended that communities participate in monitoring SFP organisation and implementation. Parent/teacher organisations or school committees could be responsible for identifying individuals to carry out monitoring activities.

Local community monitors represent SFPs within the community, boosting community ownership of the programme and strengthening relationships with community stakeholders. They will also have a strong interest in avoiding mismanagement, as this would impact on students in their own community.

The SFP management function will provide guidance to community leaders on recruiting local community monitors, as well as providing orientation for monitors and determining the frequency of visits to schools. Local community monitors must have sufficient time to observe all activities associated with programme organisation, consumption of beverage cartons and data collection during school visits.

Where SFP funds are used to compensate local community monitors, communities should be encouraged to assume financial responsibility for

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 SMP monitoring template
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this function. This will reduce administrative costs, promote local ownership and increase programme sustainability.

Responsibilities:

- Undertaking regular monitoring visits to schools.
- Collecting classroom consumption and school consumption reports from the school focal person and forwarding these to the regional monitor or SFP management function.
- Submitting qualitative observations on school compliance with SFP best practices and any problems encountered to the regional monitor or SFP management function.
- Meeting with the SFP management function when they visit schools.

Local monitors can be compensated per visit. Alternatively, the community may choose to provide this support at no cost to the SFP.

TYPES OF MONITORING

Programme organisation monitoring

Programme organisation monitoring focuses on the pre-implementation period, beginning once a school has been confirmed to participate in the SFP and the start date has been decided. The primary purpose is to verify the enrolment of students to receive the beverage cartons provided by the SFP. However, visits are also an opportunity for local community monitors to ensure that the procedures established by the SFP management function are fully in place before implementation.

visit, Peru

Document

the Philippines

School monitoring

In the weeks prior to SFP implementation, a local community monitor should visit the school several times, assisted by the school focal person. During each visit they should be provided with classroom attendance numbers. At the end of the programme organisation monitoring period, the local monitor should compare classroom attendance numbers with enrolment figures, and report this information to the SFP management function. The number of beverage cartons delivered to the school should be based on average daily classroom attendance.

The school is now ready to begin the distribution of beverage cartons for consumption by students.

Programme implementation monitoring

This covers the ongoing control of all programme activities. Any irregularities identified during regular monitoring at targeted schools should be taken up directly with the school director/principal or the school focal person. Any discrepancies between the number of beverage carton cases delivered to storerooms and the number of beverage cartons consumed by students should be reported to the SFP management function.

Monitoring will also include interviews with school personnel and possibly parents, which will yield information on beverage carton deliveries, consumption, the school storeroom and beverage carton package disposal modalities. For a form that can be used to capture this, see Annex 11.





Beverage carton package disposal | 47 46 | School Feeding Handbook

BEVERAGE CARTON PACKAGE DISPOSAL

Ensuring that empty beverage carton packages are disposed of responsibly and recycled/reused protects the environment. It also reflects positively on stakeholders, and shows that the school feeding programme is socially responsible and committed to addressing environmental challenges.

RAISING AWARENESS OF RECYCLING

To help minimise environmental impact and contribute to keeping school grounds clean, Food for Development can offer:

- post-consumption guidelines for use in schools
- environment and recycling information that could be used in training activities targeting school staff, students and their families; and
- a range of student activities to reuse empty beverage carton packages.











Post-consumption guidelines

After consumption, students should be encouraged to clean and fold the empty beverage carton packages. Posters tailored to local needs can be displayed in classrooms. Tetra Pak can facilitate the design of appropriate posters.

After consumption, students should verify that their beverage carton packages are empty by shaking them. If the package is not empty, they should finish the contents. Best practices in empty carton package disposal include cutting open packages and rinsing them. This enables schools or warehouses to store empty beverage carton packages for a longer period as there will not be any beverage residue that could cause odours and attract vermin.

Empty beverage carton packages should then be folded and placed into small bins or empty cardboard boxes in classrooms before being transferred to larger bins on school grounds. Folding enables larger volumes of beverage carton packages to be stored in the available space and to be loaded onto trucks that would transport them to recycling facilities. Transport could be provided by the recycler, the school feeding programme (SFP) beverage producer or the programme owner.

- 1. Tetra Pak beverage carton package lifecycle poster. Ghana
- 2-4. Environmental education and cutting and rinsing empty beverage carton packages, Sri Lanka
- Recycling poster, Myanmar
- Collection bin, Argentina
- Empty beverage carton package folding, Argentina
- Empty beverage carton package collection, Malaysia
- Paper making, Germany
- 10. School recycling competition, Sweden and Finland
- 11. Empty beverage carton package folding, Malaysia 12. Objects made from recycled beverage carton packages, Vietnam



Environment and recycling

Advocacy for the environment and

information regarding recycling can

be disseminated online. The internet

can be used to promote competition

between schools for collecting empty

beverage carton packages with prizes

being awarded for the highest volumes

Environment and recycling information

and other groups including parents and

community leaders. Contests and prizes

can help to increase engagement and

participation. Examples include:

can also be shared by implementing

training sessions targeting students

information

collected.











- 45 schools around the country targeted with fun and interactive activities.
- Schools participated in a competition to collect empty packages
- Top three schools won desk kits made from recycled packages.

Malaysia:

- Participating schools are given help to build a sustainable recycling system.
- Students learn the importance of a clean environment and recycling during training sessions.
- Students flatten empty packages and place them in bins.
- 642,160 students in 880 schools have taken part over nine years.

Beverage carton package disposal/recycling

Schools are responsible for ensuring that the empty beverage carton packages do not litter school premises or the surrounding area. After consumption, empty beverage carton packages should be flattened by students and collected by the school focal person or designated personnel, who will then make the appropriate arrangements for their further treatment through recycling or recovery.

Beverage carton packages are primarily made of high-quality paperboard. Empty beverage carton packages serve as a valuable raw material and can be recycled in a variety of ways. Tetra Pak market companies can provide advice on recycling solutions for SFPs.







Student activities

Empty beverage carton packages can be used to support student activities aimed at raising awareness of recycling and environmental issues. For example, empty packages (cut and cleaned) can be used by students to demonstrate re-pulping by making paper, or to make items such as baskets, bookmarks, model buildings, Christmas decorations, coin pouches, coasters, hats, toothbrush holders and toy vehicles.

Manuals and guides can be prepared that provide instructions to students on re-pulping and making various items. Training sessions can be organised to provide guidance for facilitators.





FROM WASTE PAPER TO NEW PRODUCT

The diagram above provides an overview of the recycling journey. Re-pulping separates out the component parts of the empty beverage carton package to create materials that can then be used to make products such as the ones shown on these pages.



- Recycling bin made from recycled Tetra Pak cartons
 Students in the Dominican Republic using desks and chairs made from recycled carton packages
 Paper made from recycled material
 Roof tiles made from recycled material, Thailand





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Annex 1

Example: School feeding programme implementation committee

Terms of reference

Objectives

The objectives of a programme implementation committee are to: 1) ensure effective and systematic communication between all stakeholders serving on the committee; 2) provide oversight during the organisation and implementation of the pilot; 3) facilitate and expand public-private partnerships to support programme implementation; and 4) advocate for resources to expand coverage of the school feeding programme (SFP) with government and other stakeholders in an effort to secure necessary funding and resources.

Membership

The stakeholders represented on an SFP implementation committee could include, but are not limited to:

- o Ministry of Education
- o Ministry of Agriculture
- o Ministry of Health
- o Dairy association or agricultural co-operative
- o An organisation focused on nutrition (institute, NGO, agency, etc.)
- o Funding organisation (if the government is not the sponsor).

Implementation committee leadership

The Ministry of Education as the programme owner will chair the SFP implementation committee. The Ministry of Health will be the deputy chair.

Primary responsibilities

- > Conduct meetings on a regular basis to discuss any and all issues vis-à-vis the SFP before, during and after implementation.
- > Ensure that information about the organisation and implementation of the SFP is shared in a timely manner with stakeholders and selected external organisations.
- > Create awareness of the SFP within the government and among other stakeholders.
- > Oversee monitoring of programme implementation by organising and sending out teams to visit targeted schools.
- > Form sub-committees on a needs basis. Examples could include school and community sensitisation and monitoring and evaluation.
- > Report to the programme owner.
- > Oversee evaluation of the programme once implementation has ended.

Stakeholder responsibilities

> Ministry of Education

<u>Capacity</u>: Programme owner and chair of the SFP implementation committee. <u>Primary functions</u>: Nomination of schools to participate in the programme; confirmation of schools to participate in the programme; select control schools; confirm that teachers and school administrators in targeted schools will actively participate in programme organisation and implementation; represent the SFP with external organisations; and promote the programme to external organisations.

> Ministry of Agriculture

Capacity: Member of the SFP implementation committee.

Primary functions: Promote agriculture and/or dairy production; liaise with programme stakeholders; and provide agriculture and/or dairy production data and analysis regarding the impact of the school feeding programme on production.

> Ministry of Health

<u>Capacity</u>: Member of the SFP implementation committee and deputy chair. <u>Primary functions</u>: Facilitate the collection of baseline and end line health data in targeted and control schools; execute analysis of the data collected; and transmit results to the SFP implementation committee.

> Dairy association or agricultural co-operative

milk/foodstuffs supply information.

Capacity: Member of the SFP implementation committee.

Primary functions: Represents private sector involvement in programme organisation and implementation; promote milk and/or agricultural production from smallholder farmers; disseminate milk and/or foodstuffs supply needs of the SFP to members; and report to the SFP implementation committee envisioned relevant

> Nutrition organisation

Capacity: Member of the SFP implementation committee.

<u>Primary functions</u>: Provide guidance for nutrition education promotion initiatives to be implemented in schools; and participate in evaluating the impact of the SFP on targeted students.

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Annex 2

Example: School feeding programme organisation

Activities, objectives and checklists

Step 1 - Initial communication

- Discussions with individual stakeholders:
 - o Ministry of Education
 - o Customer

Objectives: 1) secure details from all primary stakeholders relating to interest in organising a school feeding programme (SFP) and their anticipated role in programme implementation; and 2) identify a "programme owner" for the SFP.

Checklis

- Individual meetings with envisioned SFP stakeholders completed.
 Date completed:
- ✓ Visits to schools participating in the SFP using alternative packaging for milk.
 Date completed:
- Ministry of Education selected as the "programme owner".
 Date completed:

Step 2 - SFP management mechanism

- Programme owner identified or confirmed for the SFP.
- o Based on the primary motivation for SFP implementation (e.g. improve child nutrition or strengthen the dairy or school feeding foodstuffs value chain).
- Establish/finalise SFP management functions.
 - o Programme supervision
 - o Finance control
 - o Logistics
 - o Community mobilisation
- Identify or hire a management team for SFP organisation and implementation.
 - o Programme manager (from the programme owner if the government is the SFP funder).
 - o Finance manager or accountant (from the Ministry of Finance if the government is the SFP funder).
 - Logistics manager (from the beverage processor or programme owner depending on milk distribution protocols).
 - o Community mobilisation manager (from the programme owner if the government is the SFP funder).

Provide capacity building to the SFP management team.
 Objective: effective management structure of the SFP with appropriate personnel in place.

Checklist

✓ SFP programme owner is selected.

Date completed:

SFP management structure and functions are finalised.

Date completed:

SFP management team personnel identified.

Date completed:

 Capacity building provided to personnel selected to execute the SFP's management functions.

Date completed:

Step 3 - Creation of an SFP implementation committee

- Membership could include:
 - Ministry of Education
 - o Ministry of Agriculture
 - o Ministry of Health
 - o Dairy association or agricultural cooperative
 - o An organisation focused on nutrition (institute, NGO, agency, etc.)
 - o Funding organisation (if the government is not the sponsor)

Objectives: 1) ensure effective and systematic communication between all stakeholders serving on the committee; 2) provide oversight during organisation and implementation of the SFP; 3) facilitate and expand public private partnerships to support SFP implementation; and 4) advocate for resources to expand coverage of the SFP with government and other stakeholders in an effort to secure necessary funding and resources.

Checklist

Request SFP stakeholders to be represented on the committee.

Date completed:

SFP stakeholders willing to participate appoint a representative to attend committee meetings.

Date completed:

- Identify a chairperson and deputy chairperson for the committee.
 Date completed:
- Establish a meeting schedule for the SFP implementation committee.
 Date completed:

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Step 4 - Beverage production and distribution

- Finalise the beverage carton packaging material design for the SFP.
 - Identify information to be presented on beverage carton packaging (e.g. stakeholder logos, nutrition information of the beverage, environment/recycling messages).
- Produce milk/non-dairy beverage/juice for the SFP.
 - The selected processor must have the capacity and supply to produce the UHT beverage for the SFP.
- Determine a distribution mechanism and delivery schedule for the schools selected for the SFP.
- o Choices include the beverage processor or the programme owner.
- o The type of delivery vehicle and existing road infrastructure will impact on this function.

Objectives: 1) beverage carton packaging design for the SFP finalised; 2) sufficient beverage supply for the SFP; and 3) effective delivery schedule and frequency established for transporting beverage to targeted schools.

Checklist

Proposed beverage carton packaging designs have been reviewed and a version selected for the SFP.

Recommendation: Have the Ministry of Education make the final selection. Date completed:

Commence beverage production for the SFP.

Date initiated:

Delivery schedule meets the beverage supply needs of targeted schools during SFP implementation.

Recommendation: Schools receive beverage stock once every two weeks. Date completed:

Step 5 – SFP organisation: initial steps

- Preparation of draft forms and guides for the SFP to be finalised by the Ministry of Education.
 - o Tetra Laval Food for Development (FfD) can provide templates.
- Nomination of schools to participate in the SFP.
 - o Nomination based on criteria established by the Ministry of Education.
 - o Nominated schools provided criteria to be confirmed to participate in the SFP.
- Empty beverage carton package recycling solution identified, and handling/ consumption/post-consumption posters created and replicated.
 - o FfD can provide examples from other countries.
 - o Posters to be distributed after the SFP protocols training sessions.

Objectives: 1) forms and guides prepared and confirmed; 2) selected schools for the SFP informed of their status; and 3) recycling solution ready to be put into place and posters ready for distribution.

Checklist

Draft forms and guides finalised.

Date completed:

Nominated schools and communities receive guidance on the SFP and requirement to be selected to participate in the SFP.

Date completed:

Recycling solution identified.

Date completed:

Handling/consumption/post-consumption posters finalised.
 Date completed:

Step 6 - SFP organisation: nominated school activities, selection of control schools

- Nominated schools informed to prepare storerooms for beverage storage.
 - o Based on FfD best practices.
- Nominated schools requested to identify a teacher or administrator to function as the SFP focal person and commit to managing implementation in compliance with established SFP protocols.
 - o Could also involve the support of parents and/or community members to execute the required school preparation and management functions.
- Nominated schools visited by representatives of the programme owner and SFP implementation committee to confirm if nominated schools will be selected to participate in the SFP.
 - o Verification that an appropriate school storeroom has been prepared.
 - o Confirmation that a school focal person has been appointed and school has agreed to maintain and collect the required information (health status of students, beverage stock sheet, individual consumption data).
 - Validation that the school will manage the SFP in compliance with established protocols.
- The Ministry of Education selects control schools for baseline and end line height and weight data collection (control schools should be in communities with the same socio-economic profile as targeted schools).

Objectives: 1) storerooms for SFP milk prepared in compliance with FfD best practices; 2) an SFP focal person appointed by each school; and 3) schools commit to managing SFP implementation in compliance with established protocols.

Checklist

- Schools in compliance with beverage storeroom best practices.
 Date completed:
- School focal person appointments are confirmed.
 Date completed:

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Schools agree to manage SFP implementation in compliance with established protocols.

Date completed:

Control schools for data collection are identified.

Date completed:

Step 7 – SFP organisation: implementation training sessions

 Design and deliver SFP organisation and implementation protocols training sessions to school personnel (and possibly parents and community members).

Recommendation: If there is a large number of schools, organise the training session at a centralised location and only include school personnel (e.g. school focal persons and school directors). A recommended agenda for this training is as follows:

1. SFP overview

- a. Goals and objectives
- b. Beverage nutrition
- c. Tetra Pak beverage carton packages
- d. Lactose sensitivity and lactose intolerance (if it is a milk programme)

2. Data collection (before, during and after SFP implementation)

- a. Baseline (height and weight)
- b. Product and beverage carton acceptability
- c. Individual consumption
- d. End line (height and weight)

3. Milk deliveries

- a. Receipt by schools
- b. Beverage carton handling
- c. Documentation

4. Milk storeroom management

- a. Confirmation of best practices conditions (adequate space, dry, clean, secure, beverage carton cases off the floor)
- b. Beverage storage protocols
- c. Beverage stock movement registration (delivery waybills and beverage stock sheet)

5. Beverage distribution and consumption protocols

- a. Classroom distribution
- b. Beverage carton handling by students (consumption)
- c. Recommended consumption protocols for the first two weeks of SFP implementation

6. Emergency protocols

- a. Problems/issues
- b. Activities to execute

7. Post-consumption

- a. Clean and flatten beverage carton packages
- b. Execute established disposal protocols

8. SFP implementation monitoring

- a. Programme owner
- b. Community
- Provide copies of forms and SFP programme guides to each focal person.
 - o Additional copies will be replicated by schools as needed.
- Sign two copies of the school agreement for the SFP after training has taken place.
 - One copy is to be retained by schools and the second copy will be retained by the Ministry of Education.

Objectives: 1) SFP implementation protocols and empty beverage carton package modalities have been shared with all schools; 2) copies of all forms and SFP programme guides have been shared with all schools; and 3) school agreements for the SFP have been signed and copies retained by schools and the Ministry of Education.

Checklist

- An SFP implementation training agenda is finalised by the Ministry of Education.
 Date completed:
- Individual school visits or group orientation venue organised.
 Date completed:
- Training session(s) delivered.

Date completed:

SFP forms and guides provided to school focal persons.

Date completed:

SFP school agreements signed.

Date completed:

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Annex 3

Example: School milk programme KPI table (for a school milk and dairy development initiative)

Objectives	Activities	Key performance indicators	Monitoring and evaluation	Baseline numbers	Expected deliverables	Organisations responsible
1. Identify a partner to effectively organise and manage the school milk programme (SMP) (if required)	Collect information from organisations implementing programmes Present options and recommend an organisation to serve as programme manager for the feeding initiative	Meetings conducted with several organisations Thorough understanding of the available options for SMP management in-country	SWOT analysis performed of of available SMP management options		Viable implementing partner is identified and engaged (include anticipated target date)	Government programme owner and/or funding organisation (Ministry of Education, Ministry of Agriculture, Ministry of Social Development, etc.)
A programme owner is appointed for the SMP and dairy development activities	Meet with stakeholders to present programme organisation and implementation protocols Prepare and submit a recommended programme organisation action plan to the government	Meetings conducted to present school feeding programme best practices The government identifies a programme owner	The time period in which the government identifies a programme owner		SMP proposal prepared, submitted and approved by the government The Ministry of Education is appointed programme owner for the SMP	Government programme owner and/ or funding organisation (Ministry of Education, Ministry of Agriculture, Ministry of Social Development, etc.)
3. The Ministry of Education (programme owner) facilitates the execution of SMP organisation modalities	Establish the framework for an SMP implementation committee composed of programme stakeholders Schools selected to participate in the programme A memorandum of understanding (MoU) between the government programme owner and funding organisation prepared and finalised (if required) Documents prepared and submitted for the importation of milk from a third country tax free (if required) Logistics established for milk deliveries to targeted schools	1. Announcement regarding the creation of the implementation committee is drafted and distributed 2. Takes place in a timely manner (nomination, orientation, preparation, confirmation) 3. Draft MoU shared with the programme owner 4. Ministry includes additions and/or changes to the MoU 5. Documents submitted to customs and approval provided 6. Milk is received by principals/teachers/ community members at schools	Receipt of relevant correspondence Communication between the Ministry of Education and regional education offices Communication between the programme owner and the funding organisation Time period needed to finalise the MoU Efficiency and timing of the approval process Speed and efficiency of milk deliveries to schools		SMP implementation committee created (include anticipated target date) School selection is confirmed and in compliance with the number of students to be targeted MoU is signed prior to the start of SMP implementation Milk arrives at a designated location prior to the start of programme implementation Sufficient milk supplies available during programme implementation	Government programme owner Ministry of Education

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Objectives	Activities	Key performance indicators	Monitoring and evaluation	Baseline numbers	Expected deliverables	Organisations responsible
Implement a well managed and efficient SMP	Mentor the programme manager (PM) Provide guidance to the school focal person, teachers and distribution team Secure safe storage of milk at targeted schools Effective milk handling and stock management at targeted schools Effective milk distribution, consumption and post-consumption protocols established in schools Strong milk and beverage carton acceptability by students Strong de-worming protocols established at targeted schools	 Mentoring completed Relevant documents provided to the PM Guidance provided and all questions answered All schools comply with milk storage protocols Reduction in milk waste Milk distribution, consumption and post- consumption protocols provided Execute acceptability testing at targeted schools Execute de-worming at targeted schools 	Effective oversight of programme organisation and implementation Compliance to programme modalities in all schools Compliance to established milk storage protocols % milk waste Compliance with established protocols at targeted schools Survey results Number of students dewormed every six months	Reporting modalities created (monthly, annually, etc.) Reporting modalities created (weekly, monthly, etc.) Reporting modalities created (weekly, monthly, etc.) To be established during initial programme implementation Reporting modalities created (weekly, monthly, etc.)	Reports prepared and submitted as required 100% compliance to SMP protocols 100% compliance to SMP protocols % waste reduction to be established 100% compliance to SMP protocols 90% and above acceptance of milk and beverage cartons 100% of targeted students are de-wormed twice a year	Government programme owner
i. Beverage carton package recycling solution has been identified and put into place	A viable strategy for collecting empty beverage carton packages and recycling is identified Activities associated with the recycling plan commence	1. Plan is presented to programme owner 2. Plan is approved and finalised 3. Schools and communities receive training/mentoring 4. Recycling strategy is implemented in schools	Time period needed to prepare and finalise the strategy (identification of a recycler, collection from schools) Time period needed for all targeted schools to receive training/mentoring on SMP recycling protocols		Recycling strategy has been finalised (include anticipated target date) 100% of empty beverage carton packages at targeted school recycled	Local recycler
i. Quantitative indicators to measure programme impact are identified and data collected	Effective data collection protocols are identified and put into place	1. Control schools are identified and baseline data collected 2. Baseline data collected from targeted schools	Time period needed for baseline data to be collected and provided to the programme owner	Baseline data to be collected (include anticipated target date)	Baseline data collected from targeted and baseline schools (include anticipated target date)	Government programme owner of Government programme owner of community

Objectives	Activities	Key performance indicators	Monitoring and evaluation	Baseline numbers	Expected deliverables	Organisations responsible
6.1 School enrolments and classroom attendance	School enrolments monitored and classroom attendance registered and monitored	Change in enrolment rates of targeted schools Change in classroom attendance rates at targeted schools	Change in school enrolments from term to term Monthly records of classroom attendance at targeted schools	Official records to be obtained Official records to be obtained	% increase to be established % increase to be established	Schools
6.2 Health improvements among targeted schoolchildren	Collect height and weight data from students at control and targeted schools	Difference in the change of height and weight of targeted students as compared to the changes of students in control schools	Height and weight data collected at targeted and control schools every six months	Baseline height and weight of control and targeted schoolchildren	Height and weight difference between students at control and targeted schools after each year of programme implementation	Schools and/or community stakeholders
7. Secure funding to extend programme implementation beyond the initial funding cycle by implementing policy and legislation for the programme	Develop material and presentations based on the results of the programme to be presented to key government stakeholders including various relevant ministries and departments	Interest created for the programme within the government and donor community	Monitoring and evaluation missions executed on a periodic basis Semi annual reports prepared and submitted to government and other relevant stakeholders		Funding for an extension of the programme has been secured	Government programme owner
8. Facilitate creating the link for locally produced milk and the UHT factory	Create a dairy development strategy to secure sufficient locally produced milk for the SMP	Conduct a dairy assessment of the areas identified by the local authorities (include anticipated date)	Litres of locally produced milk procured by the dairy processor	Dairy development strategy has been prepared and finalised	To be established after the assessment	Government programme owner

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Annex 4

Example: Acceptability survey form

Beverage and package acceptability

Student							

1. Did you like the flavour? (Please mark the appropriate picture that corresponds with your preference).

Like it very much









.,	

2. Why? Please provide comments below:
3. If you did not finish the contents of the package, why? Please provide comments below:
4. Do you like the shape of the package? Please provide comments below:
5. Was it easy to insert the straw into the package? Please provide comments below:
6. Was the package easy to hold? Please provide comments below:
7. What do you do with the empty package?

Annex 5

Example: School inspection report to confirm participation in the school feeding programme

School: Region:
Number of students: Director/headmaster:
Affiliated facilities/extension school(s): Yes / No Total number:
1)
2)
3)
Storeroom available? Yes / No
Size of room adequate? Yes / No
Security adequate? Yes / No If no, what needs to be changed?
Room clean? Yes / No Roof leaking? Yes / No
Signs of infestation (e.g. rodents/insects) Yes / No
Shelves/pallets available? Yes / No Adequate? Yes / No
Quality? Very good Good Fair Poor
Description
Adequate ventilation? Yes / No
School focal person appointed Yes / No Name:
Does the nominated school agree to register, collect or facilitate collection and registration of all required data for the programme (health indicators, individual consumption, school ledger)? Yes / No
Does the nominated school agree to collect and dispose of empty beverage carton packages in compliance with established procedures? Yes / No
FINAL RECOMMENDATION: Based on the above-presented information, the inspection team considers this school: READY NOT READY
READY NOT READY
Date of inspection
Lead inspector / Monitor

Annex 6

Example: Agreement between school feeding programme owner and participating school

(PARTICIPATING SCHOOL)

INTRODUCTION

This document provides a summary of the school feeding programme (SFP) objectives, information concerning the beverage distributed by the programme, the area targeted by the programme, the obligations of both the programme owner and targeted schools in SFP organisation and implementation and the consequences of not complying with all of the presented protocols.

SCHOOL FEEDING PROGRAMME OBJECTIVES

The successful implementation of the SFP will achieve the following objectives:

- Increase enrolment in targeted schools.
- Improve classroom attendance of targeted schools.
- Lower school dropout rate of targeted schools.
- Improve the nutritional status of students in targeted schools.
- Promote learning by students in targeted schools.
- Empower communities to be involved in SFP implementation and identify strategies to achieve SFP sustainability.
- Increase local milk production and/or local agricultural production.
- Increase rural employment and rural incomes.

SCHOOL FEEDING BEVERAGE

The beverage will be distributed to students five days a week during SFP implementation. The product is hygienically packed using aseptic packaging and filling, and the UHT treatment process to ensure that:

- All harmful bacteria are killed.
- The nutritional value of the product is maintained without using any preservatives or any chemicals.
- The product does not require any refrigeration and has a shelf-life of up to 12 months.

When deliveries are made by the beverage processor/distributor it is extremely important to inspect each beverage carton to ensure it is not damaged. If beverage cartons are damaged, the programme owner should be contacted immediately. In addition, this information is to be noted in the school ledger and spoiled beverage cartons should be separated from other beverage cartons. Those cartons that are bloated will be retrieved by the programme owner or processor/distributor as soon as possible. Beverage cartons that have leaked, or are leaking, will be disposed of by the school focal person.

SFP TARGET AREA

The SFP provides the beverage cartons to 50,000 students in grades 1 through 9 in the target area.

PROGRAMME OWNER OBLIGATIONS IN SUPPORT OF THE SFP

The programme owner is responsible for the following:

- 1. Ensuring the delivery of beverage cartons two times a month to support consumption by all students in the school.
- 2. Monitoring on a regular basis the condition of the school storeroom, and supervising the distribution and consumption of the beverage by students.
- 3. Interviewing school personnel and community members regarding SFP implementation.
- 4. Providing the schools with sufficient copies of all relevant forms associated with SFP implementation, which include the following:
 - School ledger
 - Classroom consumption
 - Monthly school consumption.
- 5. Collected completed copies of the classroom consumption and monthly school consumption forms.

OBLIGATIONS OF TARGETED SCHOOLS

The targeted school is responsible for implementing the following:

- 1. Preparing a school storeroom for beverage carton storage in compliance with SFP protocols.
- 2. Inspecting beverage cartons upon their delivery to the school, and separating bloated and leaking beverage cartons from the shipment.
- 3. Communicating with the programme owner and the beverage processor/distributor immediately if bloated or leaking beverage cartons have been delivered to the school.
- 4. Guaranteeing that the school storeroom continues to be secure, dry and clean, beverage cartons are stored on shelves and pallets (not on the floor) and that beverage carton cases are not stacked higher than the level specified by the programme owner or beverage processor/distributor.
- 5. Ensuring that beverage cartons are properly distributed to, and consumed by, students five times a week.
- 6. Monitoring of consumption to be implemented by teachers (community members may also participate).
- 7. Confirming that the beverage is consumed only in the classroom at the designated time.
- 8. Completing and accurately registering data in the school ledger, classroom attendance and consumption form and the monthly school consumption form.
- 9. Participating in the implementation of the identified disposal process for empty beverage carton packages.
- 10. Preparing a strategy paper presenting recommendations on how parents and community stakeholders provide support to the SFP.

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EMERGENCY PROTOCOLS

If a child in school should fall ill after beverage consumption, the following steps should be implemented in the following order:

- 1. They should be immediately taken to the nearest health facility to be examined and treated.
- 2. Communicate with contact persons designated by the programme owner and beverage processor/distributor as the point person for emergencies.
- 3. Collect, if possible, the beverage carton that the student was drinking from prior to falling ill.
- 4. Collect other beverage cartons of milk from the school storeroom with the same batch number as collected in point 3 above.
- 5. Provide the collected empty beverage cartons to the programme owner or the beverage process/distributor.

NON-COMPLIANCE

SIGNATURE

Non-compliance with any and all of the above-presented will elicit one or more of the following responses:

- 1. The school's participation status in the SFP will be changed from "permanent" to "probationary".
- 2. The school will temporarily be suspended from participating in SFP implementation.
- 3. The school will no longer be a school targeted by the SFP.

The programme owner reserves the right to determine which sanction(s) is/are applied as the result of non-compliance with one or more of the obligations presented above.

By signing the agreement, the signatories have confirmed that they commit to implementing the SFP in compliance with protocols established by the programme owner.

OFFICIAL

(Printed)	School headmaster
(Printed)	Manager Programme owner
(Printed)	President Parent teacher organisation or designated community leader

Annex 7

Example: Delivery waybill

Serial number: 060310/R1/W1

Date	Destination code	School name	Region	Quantity (number of trays)	Signature School focal person/Principal
10/3/14	R1/sc1	School 1	Region A	100	
10/3/14	R1/sc2	School 2	Region A	50	
10/3/14	R1/sc3	School 3	Region B	80	
11/3/14	R1/sc4	School 4	Region B	200	
11/3/14	R1/sc5	School 5	Region C	50	
	Total boxes			480	

Warehouse officer	Signature	Date
Driver	Signature	Date

Ν

The delivery waybill must be countersigned by the receiver and brought back by delivery personnel to the primary warehouse.

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Annex 8

Example: Warehouse ledger

Warehouse nameWarehouse manager.....

Date	Destination code or serial number	Stock movement from/to	Stock quantity (number of cases)	Stock damage	Stock balance
Starting	warehouse stoc	k level			5,000
10/3/14	(invoice from supplier)	Supplier XX ¹	100,000	15	104 985
10/3/14	060310/R1	School 12	100	0	104 885
10/3/14	060310/R2	School 2	50	0	104 835
10/3/14	060310/R3	School 3	80	0	104755
11/3/14	060310/R4	School 4	200	0	104 555
11/3/14	060310/R5	School 5	50	0	84 505
11/3/14		Warehouse Inspection		100	84 405
				1	1
	Last week's stock level		5000		
W/e 15/3/14	Total quantity IN		100 000		
w/e 15/3/14	Total quantity OUT		20 480	115	

Cross-checked with original order by the warehouse manager.
 Cross-checked with delivery destination code and school ledgers.

Annex 9

Example: School feeding/milk programme monthly classroom attendance and consumption form

School name:	Month:
Class:	Number of students:
Local government:	District:

N.I.	Name					Da	ays											Days	3						
No.	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total days
1																									
2																									
3																									
4																									
5																									
6																									
7																									
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19																									
20																									
21																									
22																									
Dai	ily total																								
												(Mor	nthly to	otal = 1	tally o	f daily	totals))	Mon	thly to	otal:				

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Annex 10

Example: School feeding programme monthly school consumption form

School name:	Month:
Class:	Number of students:

#	Classroom			Cons	sumpt	ion da	ys/nuı	mber c	of pack	kages					Co	onsum	ption	days/i	numb	er of p	ackag	jes			Total days
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									
17																									
18																									
٦	Total number of packages																								

Annex 11 | **77**

Annex 11

Example: School feeding programme monitoring template

	Monitor:		·····	<u></u>				Date	·····					<u></u>		
	<u>Subject</u>							Inf	orma	tion						
1	Name of state /region															
2	Name of township															
3	School name and programme start date															
4	Principal and contact information															
5	Principal's commentary															
6	Focal person and contact information															
7	Focal person's commentary															
8	Teachers interviewed															
9	Teachers' commentary															
10	Parents interviewed and contact information															
11	Parents' commentary															
12	Other stakeholders interviewed															
13	Stakeholders' commentary															
14	Arrival time/ departure time															
15	Total student population															
16	Student population information	G1	М	F	G2	М	F	G3	М	F	G4	М	F	G5	М	F
17	Total number of teachers and gender	Male				Fema	ale	•			•		To	tal		
18	G-1 Focal name and contact information															
19	G-2 Focal name and contact information															
20	G-3 Focal name and contact information															
<u></u>	contact information															

21	G-4 Focal name and							
22	G-5 Focal name and contact information							
23	Consumption time							
24	De-worming status	Year	1 st	2 nd	Year		1 st	2 nd
25	Consumption pattern (number of students)	Milk	No mi	lk consu	mption		nsumptio Jular	n not
32	Drop-out	Yes / No	Day a	nd monti	1		ade/numb	oer
27	New enrollees	Yes / No	Day a	nd montl	า	Gra	ade/numb	per
28	Beverage carton package disposal	Waste pick-up	Recyc	ling		Oth	ner	
29	Storage room	Excellent	Good			Fai	r	
30	Delivery commentary	Regular	Lack	of stock?	When?		o much si	tock?
31	Storage capacity	1 month	2 mor	nths			nonths	
32	Parents/community contributions					L		
33	Completed form commentary							
34	Emergency protocols in place							
35	Recommendations to improve SFP implementation							
36	General feedback							
37	General comments by targeted schools							
38	General remarks and findings by monitor							

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LIST OF ACRONYMS

DIF National System for Integral Family Development

FAO Food and Agriculture Organization

FfD Food for Development

GAIN Global Alliance for Improved Nutrition

GCNF Global Child Nutrition Foundation

GPS Global Positioning System

INCAP Nutrition Institute of Central America and Panama

KPI Key performance indicator

NGO Non-governmental organisation

SDG Sustainable Development Goal

SFP School feeding programme

Sida Swedish International Development Cooperation Agency

SMP School milk programme

SUN Scaling Up Nutrition

UHT Ultra-high temperature

UN United Nations

USDA United States Department of Agriculture

WFP World Food Programme



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The Tetra Laval Group consists of three industry groups, Tetra Pak, Sidel and DeLaval, all focused on technologies for the efficient production, packaging and distribution of food.

A: Tetra Pak

♣ Sidel **♣** DeLaval





