

# Tetra Laval Food for Development

The Implementation of  
School Milk Programmes is a Driver of  
Milk Demand and Child Health  
- International Experience

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**Sochi Dairy Olympics**  
**May 21, 2018**



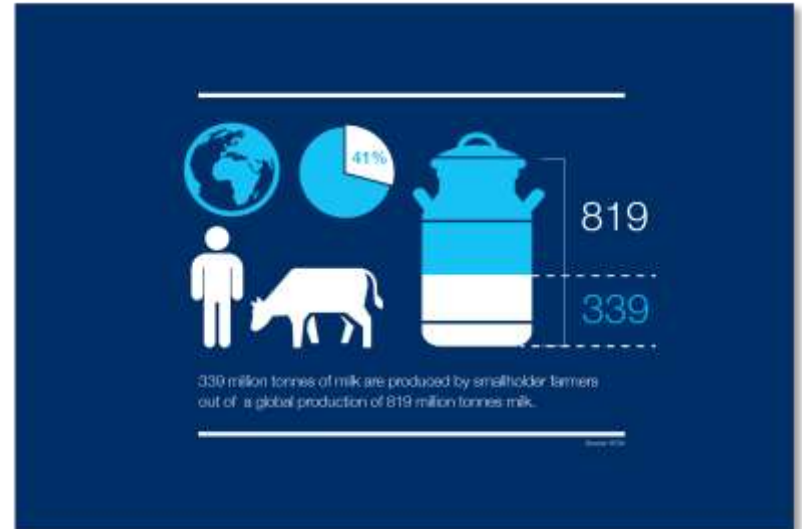
# Tetra Laval

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



# Food for Development

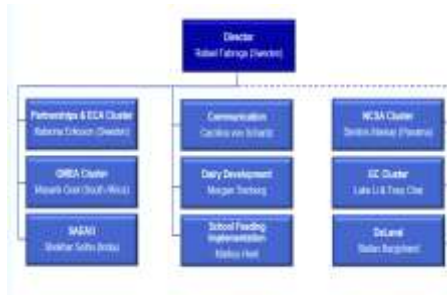
Addressing global challenges related to food security and nutrition



# Food for Development Support



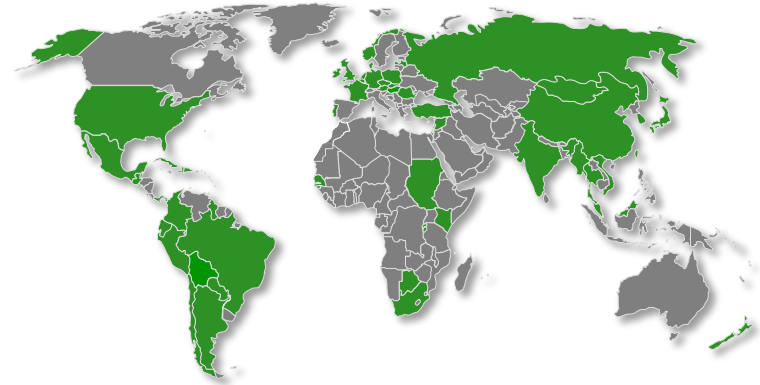
- ▶ Support practical implementation in School Feeding.
- ▶ Facilitating the development of innovative fortified products for school feeding and nutrition programmes.
- ▶ Share Dairy Hub methodology and best practices.
- ▶ Training of smallholder farmers and key local staff.
- ▶ Dairy farm assessments, business plan assistance, and strategy development.



# Our History & Tradition in School Feeding

For more than 55 years, we have participated in the development of school feeding and nutrition programmes, which have provided value to children and society around the world.

In 2017, 72 million children in 58 countries received milk or other nutritious beverages in Tetra Pak packages in their schools.



● Countries with SFP using Tetra Pak packages 2017

# Working in Partnerships

- ▶ It is essential to collaborate between stakeholders across borders.
- ▶ We work together with the public sector in many countries, mostly with Ministries of Agriculture and Ministries of Education.
- ▶ We have a strong network within United Nations collaborating with Global Compact, World Food Programme (WFP) and Food and Agriculture Organisation (FAO).
- ▶ We work alongside with many Non-Governmental Organisations such as Global Child Nutrition Foundation (GCNF) and the Scaling Up Nutrition (SUN) movement.



# Global View of School Feeding



- ▶ 368 million children in 169 countries receive food in school.
- ▶ One out of six children in developing countries – roughly 100 million children – is underweight.
- ▶ School feeding is a good investment for a country – for every \$1 spent, it is estimated that at least \$3 is gained in economic returns.

Source: WFP

# Global View of School Milk

140 million children receive milk in schools

- ▶ 140 million children receive milk in schools.
- ▶ 39 countries reported official national recommendations on milk consumption for children.
- ▶ 58% of school milk programmes provide milk for free, another 27% are subsidized.
- ▶ 87% of countries reporting about school milk in the survey use aseptic packaging in school milk programmes.
- ▶ 200 ml is the most common portion size.

Source: IDF / FAO



# Global View of School Milk

## Different Funding Models

- ▶ National (China, Thailand, Mexico, Turkey...)
- ▶ Regional (Russia, Kenya...)
- ▶ Municipal (Sweden, Dakar/Senegal...)
- ▶ EU subsidies for school milk used by all EU member countries
- ▶ Parent paid (China, Norway...)
- ▶ Donor funded (Syria, Lebanon, Burundi, Haiti...)
- ▶ CSR and Market Development (Fonterra/New Zealand, Tetra Laval/Myanmar...)
- ▶ Combinations (parents/EU, parents/government, government/EU, processor/municipality...)

Most common



Latvia – government, EU, parents

# Global View of School Milk

## Different Implementation Models

### Centralized system

- ▶ National procurement.
- ▶ Uniform processes.
- ▶ Effective program oversight.
- ▶ Fewer counterparts.

### De-centralized system

- ▶ Central government responsible but delegates to local body.
- ▶ Empowers local government.
- ▶ More diverse foods for higher cost.
- ▶ Less uniformity in oversight.
- ▶ Funding capacity varies.



China – a hybrid system

### Hybrid models

- ▶ National policy and technical requirements.
- ▶ Oversight by regional or local government representatives.
- ▶ Money transferred to regions with accountability mechanisms.
- ▶ Local procurement with strict guidelines.

# Sustainability Pillars

Requires strong collaboration of diverse stakeholders

- ▶ **Community Ownership:**
  - Crucial for effective programme organization and implementation.
- ▶ **Local Value Chain:**
  - Contributes to economic development.
- ▶ **Impact Data:**
  - Justifies continued funding.
- ▶ **Legislation:**
  - Prioritizes and protects programme funding for the long-term.
- ▶ **Cross Sector Partnerships:**
  - For efficient solutions and food safety.
- ▶ **Environment:**
  - Waste collection and re-cycling

The image shows a document from the 'PROGRAMME D'ACTIVITE A L'ECOLE DE LA ZONE DE DAKAR'. It includes a header with logos and a table with columns for 'Date', 'Nom', 'Prénom', 'Sexe', 'Niveau', 'Quantité de lait consommé (en litres)', and 'Signature'. The table has multiple rows for data entry.

**Classroom Individual Milk Consumption Form**



**Placing a Flattened Package in a Bin**

# Legal Framework for School Feeding

Sustainability is ensured and standards maintained

- ▶ School Nutrition or School Feeding Guaranteed by Law
  - **Honduras:** “School Milk Law” (2010).
  - **USA:** Law on “National School Lunch Programme” (1946).
  - Other countries with laws prioritizing school milk:

**Chile**

**El Salvador**

**Panama**

**Colombia**

**Mexico**

**Paraguay**

**Costa Rica**

**Nicaragua**

**Uruguay**

**EU School Milk Scheme**



Mexico

***Legislation ensures that programmes cannot be cancelled when governments change.***

- ▶ Milk Consumption Guidelines
  - **Denmark, Sweden, Finland, France, Bulgaria, Chile, USA, China**

# Programme Impact Indicators

Quantitative results provides programme sustainability arguments

- ▶ Student Measurements:
  - School enrollment.
  - Classroom attendance.
  - Height and weight.

***Comparison of baseline and end-line data will provide programme impact.***

- ▶ Economic Measurements:
  - Agricultural and processor production.
  - Agriculture & processor sector employment.

***Comparison of baseline and end-line data will provide programme impact.***



Height Chart and Scale at a School in Myanmar



Milk Collection Point in Zambia

# Thailand

<b>Year programme started:</b>	1992
<b>Beverage:</b>	White milk
<b>Type of package:</b>	Tetra Brik® Aseptic 200 Slim, Tetra Brik® Aseptic 200 Slim Leaf
<b>Children reached by Tetra Pak packages in 2017:</b>	7 200 000
<b>Programme funder:</b>	Government support
<b>Programme implementer:</b>	School Milk Board, under Livestock Department, Ministry of Agriculture and Cooperatives
<b>Dairy processors delivering:</b>	Top 5 processors: Chiangmai Freshmilk, Nongpho Cooperatives, Country Fresh, Wang Nam Yen, Dairy Farming Promotion Organisation



# School Milk Programme Impact

<b>Malnutrition presence</b>	Reduced from 19% in 1990 to 10% in 1996-1997 and 5% in 2006.
<b>Height</b>	Children in the programme grew an additional 3 cm per year, in comparison to before programme implementation.
<b>Per capita milk consumption</b>	Increase from 2 litres in 1984 to as high as 29 litres in 2009. 6% increase annually between 1996 to 2006.
<b>Dairy market</b>	290 million litres in the early 1990s to 1 146 million litres in 2003.
<b>Number of dairy cooperatives</b>	62 in 1996 and 117 in 2009.
<b>Milk production</b>	The school milk programme uses 37% of the milk produced in Thailand.

Sources: School Milk Program in Thailand, Dr. Issara Suwanabo; FAO; Dairy Council of Thailand.



# Vietnam School Nutrition Assistance Programme (VSNAP)

<b>Programme started:</b>	2001
<b>Beverage:</b>	Fortified Milk
<b>Type of package:</b>	Tetra Fino® Aseptic 200
<b>Children reached by Tetra Pak packages:</b>	330 000
<b>Programme funder:</b>	United States Department of Agriculture
<b>Programme implementer:</b>	Ministry of Education and Training
<b>Dairy processor delivering:</b>	Vinamilk



# School Milk Programme Impact

<b>Height</b>	Targeted students increased 3.4% more than control students.
<b>Weight</b>	Targeted students increased 8.1% more than control students.
<b>Academic</b>	Increase from 16.3% to 25.7% of grade 3 students that received a “good” grade from school year 2003 - 2004 to school year 2004 - 2005.
<b>Parents’ perception</b>	95% approval rating by mothers. 84% of mothers believe that their children are growing faster. 87% claim that children are healthier and stronger.
<b>Net enrollment</b>	0.5% decrease from 2003 to 2005 at targeted schools as compared to - 6% at control schools.

Sources: Land O’Lakes International Development: School Nutrition Program Report; Vietnam School Nutrition Assistance Program (VSNAP): Overview, Impact and Lessons Learned.



**MINISTRY OF EDUCATION AND TRAINING**  
SOCIALIST REPUBLIC OF VIET NAM



# Vietnam Regional School Milk Programmes

<b>Year programme started:</b>	2006
<b>Beverage:</b>	Fortified milk
<b>Type of package:</b>	Tetra Brik® Aseptic 200 Slim
<b>Children reached by Tetra Pak packages in 2017:</b>	200 000
<b>Programme funder:</b>	Provincial governments
<b>Programme implementer:</b>	Department of Education and Training
<b>Customer/s delivering:</b>	Vinamilk



# Vietnam – Dairy Development

Source: IFCN 2017

<b>Milk Production (cows') Mill t ECM</b>	Increased from 0.05 in 2000 to 0.77 in 2016
<b>Number of cows</b>	Increased from 68,000 in 2000 to 271,000 in 2016
<b>Milk yield (t / cow / year)</b>	Increase from 0.8 in 2000 to 2.8 in 2016

## Key variables

	1996	2000	2002	2004	2006	2008	2010	2012	2014	2015	2016	Annual change	
												'06-'11	'11-'16
<b>Milk production (cows')</b>													
Production (mill t ECM)	0.04	0.05	0.08	0.15	0.21	0.26	0.30	0.37	0.53	0.58	0.77	9.5%	18.3%
Cows (in 1,000's)	53	68	56	96	113	106	129	167	228	240	271	4.8%	13.7%
Milk yield (t / cow / year)	0.8	0.8	1.4	1.6	1.9	2.4	2.3	2.2	2.3	2.4	2.8	4.2%	5.7%
<b>Farm structure</b>													
No. of dairy farms (in 1,000's)	8.0	12.0	14.9	18.0	19.6	20.0	20.3	20.6	20.8	21.0	20.8	0.8%	0.4%
Average farm size (cows / farm)	6.6	5.7	3.8	5.3	5.8	5.4	6.3	8.1	10.9	11.4	12.8	3.8%	12.9%
<b>Prices in national currency</b>													
Milk : feed price ratio	1.6	1.7	1.6	1.4	2.0	1.4	1.2	1.1	1.2	1.4	1.3	-11.9%	4.2%
Cull cow (VND / kg live weight)						25,000	26,000	30,000					
Land - buy (1,000 VND / ha)							1,578,298						
Devaluation of VND vs USD	69%	47%	30%	28%	26%	34%	8%	-1%	-9%	-6%	-8%	-5.2%	-1.6%



# China

<b>Year programme started:</b>	2000
<b>Beverage:</b>	White and flavoured milk
<b>Type of package:</b>	Tetra Brik® Aseptic 125 Slim, Tetra Brik® Aseptic 200 Base, Tetra Brik® Aseptic 200 Slim, Tetra Brik® Aseptic 250 Base, Tetra Brik® Aseptic 200 Base, TFA 200
<b>Children reached by Tetra Pak packages in 2017:</b>	17 560 000
<b>Programme funder:</b>	Parents and Government
<b>Programme implementer:</b>	Dairy Association of China (since 2013)
<b>Customer/s delivering:</b>	97 Licensee Dairy Customers



# School Milk Programme Impact

<b>Height and weight</b>	Increase of at least 0.6% in height and 2.9% in weight during a 2 year period between targeted and control students.
<b>Bone mineral content (size adjusted) and bone mineral density</b>	Increase of at least 1.2% in bone mineral content and 3.2% in bone mineral density during a 2 year period between targeted and controls students.
<b>UHT milk production</b>	Increase in production from 200 million litres to 1 billion litres from 1999 to 2002. 27.5% of UHT milk production country-wide delivered to the school milk programme in 2002.
<b>Milk production</b>	Average growth rate of 19% from 2000 to 2002 as compared to an average growth rate of 5.5% between 1992 and 1999.
<b>Dairy cattle</b>	Increase from 4.6 million dairy cattle to 6.9 million from 1999 to 2002.
<b>Number of Dairies</b>	Increase from 700 dairies to 1,600 dairies from 1999 to 2002.
<b>Dairy farmers income</b>	Increase from \$2.15 billion US to \$3.24 billion US from 1999 to 2002.

Sources: British Journal of Nutrition July 2004; Beijing Prime Dairy Research institute 2003.



# School Milk promotes consumption and better health during all life!



Germany



Sweden



New Zealand



Russia

# THANK YOU FOR YOUR ATTENTION!

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