

## THE CONSULTANCY

On 15 December 2019, the Global Child Nutrition Foundation (GCNF) submitted an Expression of Interest to IFC via the World Bank Group online submission platform (WBG eConsultant2) for Consultancy 1265293 / Pakistan School Milk Program. Accepted to submit a full proposal, for which the due date for submission was set as 17 February 2020, GCNF submitted its full proposal to IFC on February 14. The proposal and budget can be found in Appendix A.

On 17 March 2020 GCNF was informed that it was awarded IFC Contract #7195419 for the consultancy. The contract can be found in Appendix B. It called for GCNF to take the following actions:

- 1) Prepare a presentation outlining possible School Milk Program (SMP) models, including funding mechanisms, based on successfully implemented examples from other countries;
- 2) Analyze and evaluate the models proposed by the local industry stakeholders;
- 3) a) Present SMP models, which have been successfully implemented in other countries,  
b) Discuss the design of proposed SMPs for Pakistan with dairy industry representatives and with the government at a workshop to be organized by IFC;
- 4) Hold follow-up meetings with Ultra High Temperature (UHT) milk industry stakeholders (including the Pakistan Dairy Association, Friesland Campina, Nestle and Tetra Pak) and with the government in order to develop the detailed design of a model for a school milk program with a credible milk quality assurance system and with a credible system for ensuring that the milk would be provided to and consumed by schoolchildren on a daily basis;
- 5) Work with the relevant government institutions and with the industry in order to identify the regions, the schools, the required financing sources, the participants, and their roles and responsibilities for implementing the proposed pilot SMP;
- 6) Collect qualitative feedback from the parents, teachers, and community leaders on the SMP and develop the criteria on what data should be collected to monitor the overall progress of the SMP, including its impact on enrollment, drop-out rates and the health parameters of the children taking part in the pilot SMP;
- 7) Collect and analyze information about Friesland Campina's and Nestle's milk supply chains in order to develop criteria and methodology for monitoring the program's impact on smallholder farmers' incomes and livelihoods;
- 8) Prepare a detailed description of the required infrastructure (including the regulatory and the legal infrastructure) and the capacity for the implementation of the School Milk Program;

- 9) Develop a detailed implementation plan for the pilot SMP, including the Monitoring and Evaluation (M&E) framework for documenting and measuring the program's impact and for collecting the data required to validate the program benefit along the value chain; and
- 10) Conduct a workshop with the dairy industry stakeholders and with the government during which the final design of the program would be agreed upon and approved by the dairy industry and by the government.

GCNF's February proposal outlined four phases to the consultancy

	PHASE 1: INSIGHTS, INPUTS, ANALYSIS February 15 - March 14	PHASE 2: CONCEPT PRESENTATION March 15- March 31	PHASE 3: IMPLEMENTATION PLAN PREPARATION April 1 - July 14	PHASE 4: FINAL PRESENTATION July 15 - August 15
IFC	Communicate project kick off to stakeholders	Input on workshop agenda Host Workshop	Input on draft pilot plan Preapprove final pilot plan presentation	Approve workshop agenda, materials Attend workshop
Consultants	Collect & review international models, data, insights Identify stakeholders/project planning - Govt, PDA, local admin, regulator, legal, etc. Sensitivity check of model concepts with stakeholders	Organize Workshop - Draft agenda/participants - Invite/follow up participants Event management Present workshop content	Qualitative study of community Stakeholder meetings: gather data, input on project design, align roles and responsibilities in pilot program Prepare draft pilot implementation plan Prepare final pilot plan presentation	Organize Workshop - Brief to PR agency - Draft agenda/participant list - Develop media, workshop material - Invite/Follow up with participants Event management Present workshop content Arrange agreements with stakeholders

The following deliverables related to those actions were agreed between GCNF and IFC on 31 March, and the work commenced immediately thereafter.

#	Description of the Deliverables	The Timeline
1.	A presentation about proposed possible SMP models and an evaluation report of the SMPs which were designed by the dairy industry stakeholders	June 2020
2.	A successfully conducted initial workshop with the government and with the dairy industry to present international experience and best practices on conducting SMPs and to discuss the design of a pilot SMP for Pakistan	July 2020
3.	A developed business model for the SMP in Pakistan (including its operational model, its financial model, its implementation plan, its monitoring and evaluation framework)	August 2020
4.	A successfully conducted workshop with the government and with the dairy industry during which the proposed SMP model was discussed and approved by the government and the dairy industry for implementation	September 2020

This report will be organized according to these lines of action (although not in the order presented in the Terms of Reference) and will discuss the results against each of the deliverables. The appendices contain significant documents related to the project.

### THE GCNF AND ITS CONSULTANCY TEAM

GCNF is a non-profit entity incorporated in the United States in 2006. GCNF served as the management entity for the consultancy.

The GCNF Executive Director, **Arlene Mitchell** led the effort. She is a globally recognized thought leader regarding school meal programs and related matters, with over twenty years of experience in international school feeding programs, and related food, agriculture, and nutrition topics. GCNF Program Officer **Ryan Kennedy** conducted research and provided much of the data regarding other countries' experiences with school milk programs. GCNF's Administration and Finance Coordinator **Cierra Schneider** managed administrative and financial aspects of the program, including maintaining financial records and establishing contracts with, and processing payments to the in-country team members.

GCNF sub-contracted with a core "Local Team" of four experts in Pakistan:

**Memosh Khawaja**, coordinated in-country activities on behalf of GCNF and provided expert input regarding dairy business value chain aspects of the project, including financial and data aspects, ensuring that the Pakistan pilot program's school milk value chain meets international standards for safety, and that the overall pilot program is geared toward success and sustainability.

In addition to coordinating in-country team activities and communicating frequently with GCNF headquarters and IFC, Memosh negotiated with Pakistan Dairy Association members to gain key dairy business data for the project and to assess their commitment to the pilot program; with Tetra Pak regarding their interest and potential contribution to the program; and with the United Nations World Food Programme (WFP) regarding their work in Pakistan, the WFP's own proposal for school feeding in Punjab province, and their interest in managing the pilot program. He also provided quality control for the in-country team's work, and managed recording and providing reports from most of the in-country consultations held.

Memosh has over twenty-five years of relevant business experience. His most recent experience prior to the consultancy was with the dairy industry in Pakistan, where he worked with the Pakistan Dairy Association and Haleeb Foods, Ltd.

**Kashif Hussain Bhatti** also provided expert input regarding execution of pilot SMP on ground at school level, as well as about business, particularly from the processors and farmers' perspective, and the gender, food safety, and packaging aspects. Kashif conducted much of the in-country program research, gathering relevant data from the government and

others sources regarding the demographics of potential target districts; school infrastructure, enrolment, and attendance; nutrition; processing facilities and their collection and distribution points, and more. Kashif also drafted much of the pilot program design, including the rationale for the target districts and the key performance indicators.

Kashif has over twenty years of relevant business and dairy experience in Pakistan and in the Greater Middle East, much of it with Tetra Pak. In 2003, he was involved with the Land O'Lakes and Tetra Pak Pakistan's school milk project in the Ghotki District in rural Sindh. He has also worked extensively with the Pakistan Dairy Association.

**Ali Mehdi** focused primarily on the government relations aspects of the pilot project, setting up key meetings with provincial officials in Punjab, as well as some key government officials at the national level. He also assisted with the design of the program design, particularly vis-à-vis the governance structure and the terms of reference for the program board.

Ali is a specialist in finance, strategy, and government relations, with experience in banking, global financial markets, and corporate finance in emerging markets. Ali has been a consultant for Royal Friesland Campina in Pakistan, where he was involved in developing a five-year strategy for government relations and corporate social responsibility, and worked towards Minimum Pasteurization Law for the dairy industry in Pakistan.

**Dr. Fauzia Waqar** provided input relevant to the health and nutrition aspects of the project, as well as gender and monitoring and evaluation. When issues were raised regarding plain milk versus flavored milk, lactose intolerance, and consuming milk on an empty stomach, Dr. Waqar did much of the needed research and recommended a way forward.

Dr. Waqar has a post-graduate degree in Public Health from the University of Cambridge in the UK, and her experience includes program development, proposal writing, policy evaluation and management for health, nutrition, and environmental matters. She has worked with governments at both the national and provincial levels in Pakistan, and with a wide variety of organizations, including the UN World Health Organization and World Food Programme, the World Bank, the Asian Development Bank, and the Global Alliance for International Nutrition (GAIN), as well as with international non-governmental organizations.

In addition to these key players, the GCNF proposal called for funds to cover the costs of three other local entities: 1) A local research firm to gain insights from local players, including farmers, student, families, and school personnel; 2) A law firm to review any proposed legal or regulatory implications of the proposed pilot program; and 3) A communications company to assist in publicizing the pilot program and gaining public support for its implementation.

## IMPLEMENTATION OF THE CONSULTANCY

### REVIEW OF PAST MODELS

Relevant action items:

- #2) Analyze and evaluate the models proposed by the local industry stakeholders.
- #3a) a) Present SMP models, which have been successfully implemented in other countries,

To address action item #2, GCNF reviewed a 2018 proposal by the Pakistan Dairy Association. Although it was not initiated by industry stakeholders, GCNF also reviewed aspects of a proposal developed by the United Nations World Food Programme (WFP) in 2017 that included a dairy option.

To address action item #3a, GCNF turned to five key sources:

1. GCNF consulted with the Food and Agriculture Organization of the United Nations (FAO), which is the lead within the United Nations for agriculture, including livestock and dairy issues. FAO also shares responsibilities with other agencies for nutrition. FAO provided some key documents and examples and suggested additional resources (Appendix C).
2. The International Dairy Federation (IDF), which provided GCNF with a wealth of information, most particularly the results of its 2019 survey (Appendix D).
3. Tetra Laval/Tetra Pak's Food for Development office, which also provided numerous country examples and data (Appendix E).
4. GCNF's own resources, particularly the preliminary analysis of its 2019 Global Survey of School Meal Programs© (Appendix F).
5. Reports from the Land O'Lakes school meal program implemented between 2003 and 2009 in Pakistan (Appendix G).

In addition to these sources, GCNF identified a number of other relevant documents through online research and personal contacts. A full bibliography for the referenced papers can be found in Appendix H.

### MODEL DEVELOPMENT

Relevant action items:

- #1) Prepare a presentation outlining possible SMP models, including funding mechanisms, based on successfully implemented examples from other countries.

- #3a) Present SMP models which have been successfully implemented in other countries.

- #5) Work with the relevant government institutions and with the industry in order to identify the regions, the schools, the required financing sources, the participants, and their roles and responsibilities for implementing the proposed pilot SMP.

#9) Develop a detailed implementation plan for the pilot SMP, including the M&E framework for documenting and measuring the program's impact and for collecting the data required to validate the program benefit along the value chain.

## Global Context

To provide a contextual framework for the development of a model pilot program for the Punjab Province of Pakistan, GCNF's Arlene Mitchell provided highlights of the value of school meal programs globally, evidence that milk is a healthy, nutritious option, and an analysis of how school meal programs contribute to the achievement of multiple Sustainable Development Goals (SDGs). This work is described below.

### EVIDENCE SHOWS\* THAT HOME-GROWN SCHOOL MEAL PROGRAMS ARE POWERFUL

#### THE POWER OF SCHOOL FOOD PROGRAMS COMES FROM THE ENTIRETY OF THE BENEFITS:

- Integration of education, health/nutrition, & agriculture—the 3 pillars of development in one program
- The anchoring of the programs in schools
- The involvement of all levels of society
- The intergenerational impact

#### SCHOOL FEEDING WORKS:

- To reduce short-term hunger
- For improving school enrolment, attendance and retention, and for reducing school dropout rates
- To improve family food security and reduce poverty
- For cognitive functioning, education, and learning

\*GCNF 2017 :  
<https://gcnf.org/wp-content/uploads/2017/09/Evidence-based-Support-for-School-Meal-Programs-GCNF-August-15-2017.pdf>

## EVIDENCE\* SHOWS THAT MILK IS A NUTRITIOUS OPTION

- Milk is nutrient dense, a major source of dietary energy, high-quality protein and fat in an easily absorbed form
- Milk can help to meet required nutrient intakes of calcium, magnesium, selenium, riboflavin, vitamin B12 and pantothenic acid.
- Bioavailability of some nutrients in milk (e.g., calcium) is high compared with that in other foods in the diet
- Milk components thought to be most important for child growth are protein, minerals and lactose.
- Milk-based food products have also been used successfully in the treatment of moderate and severe malnutrition in children.

**"The private sector now leads the dairy sector... It has the potential to make a social contribution by using its considerable advertising ability to campaign for healthy diets and using its market reach and infrastructure to put milk and dairy products that boost nutrition within reach of low-income populations"**

\*FAO: "Milk and Dairy Products in Human Nutrition- Questions and Answers"

## SCHOOL MEAL/MILK PROGRAMS CONTRIBUTE TO SDG ATTAINMENT



- Income transfer to households with schoolchildren
- A predictable demand for farmers' produce
- Contribute to education and thus to productivity and intergenerational welfare improvements



- Reduce short-term hunger for school goers
- Incentivize farmers to produce
- Reduce post-harvest food loss
- Contribute to education and thus to intergenerational welfare improvements



- Incentive for out-of-schoolers to attend/their parents to support
- Empower parents—especially mothers—to become involved in schools, school committees
- Most school meal cooks are women
- Supports better school performance, especially for the most food insecure



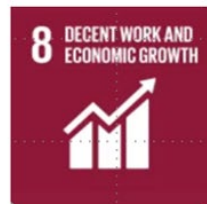
- Stimulate demand for clean water and sanitation facilities
- Partner well with deworming and hygiene education
- Can contribute to forming good habits (e.g., handwashing before and after eating)



- Provide a daily nutritious meal for students
- Reduce psychological stress of food insecurity/short-term hunger
- Contribute to education
- Supportive to complementary interventions (deworming, health education, etc.)



- Improve cognitive functioning
- Improve enrolment, attendance, and retention; encourage out-of-schoolers to attend
- Improve classroom behavior and attention



- Create jobs and training opportunities all along the value chains (especially for women & youth, even if low-skilled)
- Create demand for farmers' produce
- Contribute to local economies and future workforce



- Create demand for local processing, transport, storage
- Stimulate infrastructure investments (e.g., classrooms, kitchens, sanitary facilities)
- Embrace innovations (e.g., biometrics, internet/phone-based reporting, improved food safety & quality measures)





- Provide education and opportunity for vulnerable children
- Transfer resources to needy families
- Improve gender parity at school
- Create jobs and training opportunities, even for low-skilled, women, and youth



- Can lead to behavior change, improved nutrition and eating habits
- Stimulate demand for increased production of nutritious foods
- Create demand for food safety and quality standards and measures
- Lead to improved food preservation and processing; reduction of losses



- Strengthen community engagement (in schools and value chains)
- Contribute to the education and productivity of citizens
- Involve all levels of society, public and private
- Create local jobs and profits
- Have intergenerational impact



- Require intersectoral collaboration/partnerships
- Involve public and private sectors, working together
- Link pillars of development in one program (education, health/nutrition, agriculture, economic development)

## SCHOOL MEAL/MILK PROGRAMS CONTRIBUTE TO PEACE, JUSTICE, AND STRONG INSTITUTIONS



Investment in healthy and nourished, educated and productive citizens is an investment in

- Justice
- Strong institutions
- Peace

**“Peace begins when the hungry are fed, and the future begins when the hungry are educated.”**

--Gene White, co-founder of GCNF, 2008

### Analysis of school milk experience globally

GCNF’s Ryan Kennedy researched school milk programs around the world. The most comprehensive cross-country descriptions specific to school milk programs came from the International Dairy Federation (IDF); IDF’s 2019 Global Survey of School Milk Programs was used as the primary source for GCNF’s examination of global experience. This was supplemented, when relevant, with information gleaned from several single-program or single-country examples, from the preliminary results of GCNF’s own 2019 Global Survey of School Meal Programs®, and from individuals familiar with specific programs.

The core analysis was conducted against a dataset of 38 different programs serving milk to children (school milk programs or school feeding programs) from 35 countries around the world that participated in the IDF 2019 survey. The analysis considered aspects of program objectives and design, management and implementation, economics, capacity, and smallholder involvement. In cases where a country did not respond to a question being analyzed, they were dropped from



that calculation. In instances when multiple responses were received from a single country, the more complete overall response was retained and the additional response was treated as null.

As an example, responses of respondents that opted to complete the full IDF survey were considered in the analysis of program objectives. The respondents denoted which of the following objectives were found within their School Milk Program (SMP) or School Feeding Program (SFP). In cases in which they had multiple objectives they were asked to rank them from most important to least important.

- Promoting local production of milk;
- Serving as an avenue for surplus milk supply;
- Improving Child Health and Nutrition;
- Improving scholastic performance;
- Attracting children to school (increased enrollment);
- To provide milk to schools in the absence of government subsidy or intervention;
- Any other objective.

The lessons resulting from the analysis of objectives and design elements were as follows:

The main objective indicated for most programs is “improving child health and nutrition” representing a continued trend of increased attention on nutrition	<ul style="list-style-type: none"><li>• 87% of respondents indicated this as a primary objective (includes non-responses, n=38).</li><li>• This is an increase from 67% in the 2013 survey.</li></ul>
Improving the health and nutrition proved to be a unifying characteristic in SMPs as it frequently tied into larger nutritional schemes	<ul style="list-style-type: none"><li>• 59% of programs indicated that their SMP was a part of a wider-reaching school nutrition.</li><li>• Of these 44% included nutrition education in some form, 29% had school meal guidelines, and 10% were accompanied by a home-grown school feeding program to increase the availability of local produce.</li></ul>
Nutrition-based evidence proved to be a powerful tool in establishing a framework for implementing a SMP	<ul style="list-style-type: none"><li>• 64% of respondents indicated that they used nutrition-based evidence as a framework for implementing their program</li></ul>
A broad range of nutrition-based evidence was used to inform implementation designs in SMPs globally	<ul style="list-style-type: none"><li>• The type of evidence used included: food consumption data that identified nutrient gaps (24%); statistics on children's nutritional status (34%); and international evidence on the effectiveness of such programs to improve nutritional outcomes in children</li></ul>
Incorporating Nutrition Education into School Milk Programs	<ul style="list-style-type: none"><li>• 26% of respondents indicated that nutrition education was an extra-curricular activity while 13% indicated that it was a specific time-bound activity. 39% of respondents reported that nutrition education was offered as a combination of the two above approaches.</li></ul>
Milk was often offered alongside other food products indicating programs wider goal of improving nutrition	<ul style="list-style-type: none"><li>• Dairy products were predominantly offered as a beverage in schools (58%) and overall were served as part of an in-school meal modality (53%) or through a in-school snack modality (49%).</li></ul>

Examination of school milk program management and implementation aspects included the following considerations:

- Respondents that opted to complete the full IDF survey were asked to indicate who implements the program in their country and--if the government is involved--who manages the program. Respondents were permitted to select more than one in both cases.
- Among implementers, the options were: Schools; Communities; Local Governments; Dairies; Distributors; National Dairy Council (or Equivalent); or Other
- For program management, the options were: Ministry of Agriculture or Livestock; Ministry of Education; Ministry of Health; Municipality; Regional Government; or Other

The resulting lessons from analyzing the responses to management and implementation questions were as follows:

In aggregate between implementation and management, countries gravitated towards operating with a single stakeholder as opposed to multiple stakeholders	• 67% of programs involved a single stakeholder in the implementation or management of their program
Among single-stakeholder implementation designs, local governments and communities were the most commonly involved ahead of "other"	• In narrative explanations of "other" countries tended to indicate larger entities such as the national government or the World Food Program.
The clearest path to government buy in around School Milk in the long run is through ministries of agriculture and livestock	• "Ministry of Agriculture" was referenced or indicated in over half of all surveyed programs)
Following agriculture the government managing entities were, in order, education, regional governments, and then local municipalities or ministries of health.	• The "other" category was the 3rd most indicated managing entity. Within this category were examples of other ministries or cases like Myanmar or Zimbabwe. In the former, a private sector group engaged by Tetra Laval manages the program and in the latter their program is managed by their School Development Association (SDA)

As for program economics, the analysis considered:

- Country respondents that opted to complete the full IDF survey were asked to indicate what cost model was used to make milk and milk products available to recipients at schools in their SMP or SFP; what products were subsidized through their program; and, if the information was available, what was the average cost to the recipient and the funder in their program.
- Cost model options were:
  - Free of Charge
  - At a subsidized cost
  - Mixed by sliding scale
  - At full cost
  - Don't know
  - Other
- Subsidized product options were:
  - Whole Milk (white)
  - Semi-skimmed/low-fat milk (white)
  - Flavored Milk
  - Yoghurt

- Cheese
- Fermented Milk
- Other

This analysis showed that subsidized and free milk programs together made up the majority of cost-models, and that in programs that offered whole milk, the average serving size was 319 ml. Adjusting for a standard serving size of 200 ml, the average cost to the funder was \$0.27 USD per serving. In addition, the analysis showed that:

Plain whole milk was the most frequently subsidized product across sampled school meal programs followed by plain skim milk

- IDF notes that this reflects guidelines from the World Health Organization (WHO) which recommend whole milk for children under 5 years and semi-skimmed milk for children older than 5 years.

Flavored milk is offered at a relatively infrequent rate at the global level

- Flavoring is only used in 25% of program examples and in nearly every case a complementary product was also offered (only 1 example of a program only serving flavored milk) which was always at least whole or low-fat milk sometimes accompanied by other dairy products.
- When controlling for High Income Countries as defined by the World Bank, only 3 countries offered flavored milk.

Examination of responses from country respondents who were asked to indicate what percentage of the milk used in the program is mandatory to be sourced locally and how much of their country's total milk sales are represented by a school program provided the following insights.

Programs overwhelmingly prioritize local purchase

- Of the sampled group (n=37), 70% had requirements in place for local purchase
- Nearly 2/3 of those that had a requirement of local purchase placed their requirement at greater than 50% with 14 countries requiring 100% local purchase

School Milk Programs can prove to be a beneficial and stable market

- From the sampled group (n=37), 13 countries were able to provide a response to the percentage of sales that are represented by their program
- Responses ranged from 1% to 97% of total milk sales with an average of 12% across respondents.

According to the IDF survey, school meal programs gravitated towards a single avenue for milk procurement and the most common mode was through direct negotiation with suppliers (at 43 percent); the second most common was to procure through a centralized structure such as an organization or government body (19 percent of programs citing purchases through a centralized organization, and 17 percent of programs indicating purchases via a centralized government body).

The review of other sources and questions that developed over the course of the consultancy led to GCNF referring repeatedly to the following streamlined description of five programs in Asia that

were selected because they had used some form of measurement and reported results for relevant aspects of the programs.

	Bangladesh	China	Indonesia	Iran	Thailand
Year	2002 – 2014*	2000 onwards	2000 onwards	2013 – 2017*	1992 onwards
Product	Flavored Milk	White Milk & Flavored Milk	Chocolate Milk	Fortified Milk	White Milk
Serving size	200ml	125,200 & 250 ml	200 ml	250ml	200ml
Reach	262,900	11,270,000	423,000	14,500,000	5,200,000
Funding	USDA	Parents & Government	USDA	Government	Government
Results	<b>Attendance:</b> Up by 95% <b>Enrolment:</b> Increased by ~34% Academic: Concentration and Learning ability increased <b>Dairy Industry:</b> 500 new jobs created along with 3 UHT processors	<b>Height:</b> +0.6% <b>Weight:</b> +2.9% <b>Bone Mineral Content</b> / Density: +1.2% / +3.2% <b>Dairy Industry:</b> +500% UHT milk production <b>Dairy farmers income:</b> From \$2.15 Bio to \$3.24 Bio	<b>Empowerment:</b> Parent/Teacher Association assumed responsibility of implementation in their schools <b>Product Development:</b> 7 new fortified products developed <b>Milk Consumption:</b> Tripled	Multiple waves run in Iran <b>Verifiable performance against KPIs not available</b>	<b>Height:</b> +3cm/year <b>Malnutrition:</b> Reduced from 19% to 5% <b>Dairy Industry:</b> ~+500% growth since the inception of the program <b>Dairy Cooperatives:</b> From 62 to 117

GCNF extracted the following relevant facts and observations from its reviews and analyses and used these in most stakeholder consultations as well:

- At least 68 countries were implementing a school milk program or a school feeding program that serves milk when surveyed by IDF (source: IDF)
- School milk programs reach large numbers of children. About 160 million children in total were benefiting from school milk worldwide at the time of the IDF survey (source: IDF)
- 39 countries have made official national recommendations for milk consumption for children (source: Tetra Pak)
- Improving child health and nutrition is a primary program objective for school milk programs, and a majority use a nutrition-based rationale to establish their program frameworks (source: IDF)
- The average lifespan of school milk programs is 31 years (estimate based on GCNF's analysis of data from various sources)
- School milk programs provide local economic benefits. A majority of the countries surveyed require local purchase of at least half of the dairy products used in their programs (source: IDF).
- Milk is provided free or at a subsidized price in a majority of programs, so even the poorest children can benefit (source: IDF)
- School milk integrates well with other programs: 59% of programs indicated that their school milk program was a part of a wider-reaching school nutrition plan (source: IDF)
- School milk programs provide a predictable, long-term market for farmers and processors, thereby supporting productivity gains and private sector development. (source: GCNF analysis)

One area with which GCNF struggled to find reliable data relates to funding sources and amounts. Although GCNF was able to identify who funded a few school milk programs, in general, funding aspects were extremely difficult to identify from the available sources. Even in cases where some funding information was provided, it was not presented in a standard, comparable way, and was

thus unusable. We note that this challenge of ascertaining accurate financial information in a clear and standard form is well known to GCNF as it has consistently been an issue in GCNF's global experience. GCNF is taking steps to address this problem through its periodic Global Survey of School Meal Programs®, the first of which was administered in 2019, but it is understood that it will take time and a great deal of diligence before country governments and stakeholders report funding information more transparently and in a format that allows for comparisons.

## **Program Design: Goals and Objectives**

With the global experience as a guide, the GCNF team discussed and determined the overarching goal of a school milk program for the Punjab Province: **To achieve socio-economic improvement in the targeted districts, both in the short term and in the long term.**

The team also set out five objectives for the program, those being to:

1. Improve the nutrition of school-going children,
2. Improve the educational performance of school-going children,
3. Provide sustained economic development for the dairy processing industry, allied industries, and locals linked to the school milk program,
4. Provide a safety net and financial offset for poor households with school-going children, and
5. Develop a productive future work force.

The team also considered government and stakeholder engagement as critical to a successful pilot program. Global experience with school feeding programs has demonstrated that such programs are doomed if they are entirely dependent on external parties and do not have government support in the form of funding and leadership involvement from the outset. The experience of the prior Land O'Lakes program in Pakistan which ceased operations when donor funding was no longer available is a case in point.

Government support does not mean full funding from the outset, but there needs to be enough of an investment to provide an avenue for government involvement in decisions affecting the program's design and implementation, and to signal the government's intentions to sustain the program—if successful—over the long term. Similarly, key local stakeholders should be involved from the outset of any program and should have some say in its design and implementation decisions.

With these goals and objectives in mind, the team began to design the pilot program, building component part after component part, beginning with its core—the milk itself.

## **Program Design: Milk Component**

Led by Dr. Fauzia Waqar, the team deliberated on the nutritional needs in Pakistan. The 2011 National Nutrition Survey reported that 43.7 percent of Pakistan's children under age five were

stunted (low height for age); 15.1 percent were wasted (low weight for height) and that these percentages had grown by 7 percent and 3 percent, respectively, since 1994. The survey also reported that 31.5 percent of children under age five were underweight (low weight for age).

Specific nutritional deficiencies in Pakistan were estimated to be Calcium (at 55 percent), Protein (17 percent), Iron (37 percent), Vitamin D (54 percent), and Vitamin A (55 percent).

In 2018, the Planning Commission of Pakistan and the United Nations World Food Programme estimated that poor nutrition costs Pakistan an estimated USD 7.6 Billion annually.

More specifically to Punjab Province, the 2011 National Nutrition Survey showed that key micronutrient deficiencies in Punjab are Vitamin D (42 percent deficiency), Zinc (35 percent), and Iron (48 percent).

The Punjab Multiple Indicator Cluster Survey in 2017-18 reported that 31.5 percent of Punjab's children were stunted; 7.5 percent were wasted, and 21.2 percent were underweight.

These data factored into the team's consideration of the type, quantity, and fortification of the milk to be recommended for the pilot program. Taste, safety, shelf life, packaging options, cost, and current capacities of farmers and processors were also factors the team considered.

Flavored milk was considered in the context of its taste perhaps being preferred by children. The team ruled it out, however, based on sugar content and additional cost implications. Unflavored white milk was determined to be the recommended option.

Safety concerns drove the team's decisions that the milk had to be processed; Ultra High Temperature pasteurized milk was determined to be preferable to milk pasteurized at lower temperature both due to the longer shelf life of UHT milk (months versus days) and because UHT milk does not require cold chain storage and handling conditions.

Also due to safety concerns, high-quality packaging was deemed necessary.

Reviewing these factors, global standards, and industry capacity, the team's deliberations resulted in GCNF recommending that the pilot program should focus on white, unflavored, UHT-processed, milk in high-quality packs; 200 ml per package, with fat content of 3.5 percent and Solid Not Fat (SNF) of 8.9 percent; fortified as follows:

Values	Reference Daily Intake (RDI)	Product (25% of RDI)
Calories level (Kcal)	1800	450
Protein (g)	19	4.75
Calcium (mg)	1000	250
Iron (mg)	8	2
Vitamin A(mcg)	600	150
Vitamin D (mcg)	10	2.5
Zinc(mg)	7	1.75

Source: Dietary guidelines 2015 -2020, United States Department of Agriculture

Based on this configuration, and with data provided by key industry stakeholders, GCNF was able to determine a base cost of each pack of milk produced in the province to be 26.99 Pakistan Rupees, (about 17 US cents), broken down as follows:

Plain UHT Milk ( Fortified, Fat 3.5%, SNF=8.9%) As per PSQCA Standards	
Key Cost Elements (in PKR)	PKR
Raw milk	16.90
Food grade additives	0.26
Fortification	0.50
Processing Cost/Utilities	1.46
Packaging	5.87
Transportation to Distributor warehouse	1.00
Distribution to schools & warehousing	1.00
<b>Total Cost / Pack (200 ml with attached straw)</b>	<b>26.99</b>

### Program Design: Geographical Targeting

Kashif Hussain Bhatti led much of the work to identify where within the Province of Punjab to target the program. The core criteria used to identify target districts for the pilot program and the main sources of information used to examine these criteria are as follows:

- Incidence of malnutrition  
*Government of Pakistan (Planning Commission) National Nutrition Survey (NNS) 2011;*  
*Planning Commission of Pakistan and the UN World Food Programme, 2018;*  
*Multiple Indicator Cluster Survey 2017-18*
- Incidence of poverty  
*Planning Commission, Government of Pakistan*  
<https://ophi.org.uk/multidimensional-poverty-index/>  
*Chapter-2 Punjab Poverty Profiling 2018*
- Literacy rate



Supplementary criteria used were:

- Livestock/Number of milking animals  
*Punjab Livestock Census, 2018*
- Number of small holder farmers  
*Calculated from data collected as explained in the Size and Scope section below*
- Number of primary schools (girls and boys)  
*Punjab Education Department–School Census 2018*

Confirmatory criteria included:

- Population density  
*Pakistan's 2017 Census*
- Dairy processor milk collection network availability  
*From dairy processor-provided data*
- Processor distribution and warehousing availability  
*From dairy processor-provided data*
- Accessible (road, mobile, and internet) infrastructure  
*From various sources, including dairy processors*
- Human resource availability (NGO networks, etc.)  
*From various sources, including from dairy processors*

Applying the core criteria, it was clear that South Punjab is the area of greatest need. Based on the analysis of the supplementary and confirmatory criteria, the following districts were ranked as the top three options for targeting the pilot program:

1. Muzaffar Garh
2. Bahawalpur
3. Rahim Yar Khan

Based on subsequent stakeholder consultations, GCNF further narrowed the list and determined that the pilot should be concentrated in Muzaffar Garh.

### **Program Design: Size and Scope**

The following considerations factored into the team's determination of the appropriate size and scope of the program to propose, in terms of the number of schools and school milk recipients, and, in turn, the amount of milk this would entail and the number of farmers that would be involved:

- The pilot should have impact on a sizable population of children
- It should be able to demonstrate significant health and education impact
- It should support processor efficiency and support them to achieve market gains
- It should sufficiently engage the targeted and relevant community

Based on these criteria, it was decided that the program should cover:

- About 80% of the public primary schools in the target district (1400 of the 1717 schools, quite evenly split between boys and girls' schools);
- About 191,500 of the 239,268 children enrolled in the district's public primary schools;
- A potential 10 percent increase in enrollment of currently out-of-school children due to the incentive that the school milk will provide;
- All teachers in the targeted schools, to ensure their participation and support;
- Quarterly provision of milk packs to students' parents (to ensure their involvement in, understanding of, and support for the program);
- One 200 ml pack of milk per day per person, five days per week for the full school year (208 feeding days) with the exception of parents, for whom GCNF recommended one pack each, four times per year.

This sizing exercise resulted in an estimated program need of approximately 47 million packs of milk for the school year, allowing a reasonable margin for wastage or damage as well as having sufficient buffer stocks to ensure steady supplies.

Because GCNF recommends that all the milk for the pilot program be collected from farmers within the district if possible, and given that milk collection would not be limited to school days (milk collection would need to be consistent throughout the year), this size of program would require 26,166 liters of milk to be collected. This will constitute a 31.5% increase in processor collection in the district, where current collection totals 83,000 liters.

At a raw milk price calculated to be 64 Pakistan Rupees per liter, this would mean involved farmers would experience an increase of 558 Million Pakistan Rupees (almost USD 3.5 Million) per year in milk sales.

The average yield per day per farmer in Punjab is very low, at 3 liters. Based on the quantity of milk needed for the program and this average per farmer yield, GCNF estimated that milk from about 8,700 farmers would be needed to meet program requirements.

### **Program Design: Key Performance Indicators**

Before establishing the specific Key Performance Indicators (KPIs), the GCNF team collectively determined that the program KPIs should be:

- Built on global experience and good practice;
- Rigorous and credible;
- Practical to implement in the Punjab context; and
- Inclusive (e.g., ensuring that all stakeholder interests are represented; and that small-scale milk producers can participate).

In addition, the team felt that the KPIs should:

- Produce results that will be convincing to all major stakeholders.

Using these criteria, the team produced the following KPI plan:

EDUCATION				
	Indicators	Description of Indicators	Source	Timing
1	Enrollment (number)	Number of new admissions in the sampled school before and after SMP	Historic data + register and data from sampled schools	Baseline, annually thereafter until endline
2	Estimated attendance rate	Ratio of students present in school on a given number of days during the year (determined by head counts) to the number of children enrolled		
3	Drop-out rate	Percentage of children enrolled in a given year who do not finish the school year.		
4	Promotion rate	Percentage of children enrolled in a given year who are promoted to the next grade at the end of the year		
5	Involvement of parents in activities at schools	Change in parents' level of involvement in children's schooling	Qualitative Research with parents, teachers and students	Baseline, midline and endline
6	Students' academic ability	Change in students' academic performance		Endline

HEALTH AND NUTRITION				
	Indicators	Description of Indicators	Source	Timing
1	Height	Height according to age, measured with stadiometer or measuring tape	Primary data from children of sampled school	Baseline, Midline, Endline
2	Weight	Weight according to the age, measured with weighing scale		
3	Body Mass Index	Approximate measure of over- or under- weight, calculated by dividing the weight in kilograms by the square of their height in meters		
4	Mid-Upper Arm Circumference (MUAC)	Circumference of left upper arm mid-point between the tip of the shoulder and the tip of the elbow. Used to assess nutritional status.		
5	Iron Deficient Anemia	Caused by a lack of iron, leading to low levels of hemoglobin	Blood laboratory test*	
6	Vitamin D deficiency	Vitamin D is essential for strong bones: It helps the body use calcium from the diet		
7	General Health	Incidence of general illnesses	School absences and # of hospital visits	
8	Student reaction to the intervention	Student reaction to the milk delivered; its frequency, amount, quality and taste	Qualitative Research with students, parents, teachers	Month 1
9	Student behaviors	Any significant change in student behaviors (alertness, fatigue, focus, physical activity, anger, emotional disturbance etc.)		Midline, endline

\* Blood testing viability to be checked. In case of any issue, its intended outcome will be measured via qualitative research

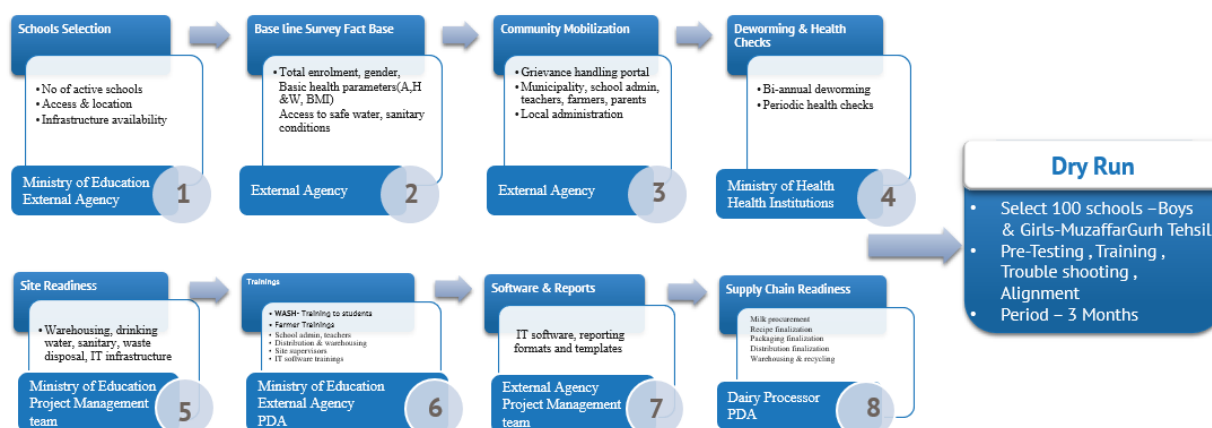
## ECONOMIC DEVELOPMENT

	Indicator	Description of Indicators	Source	Timing
1	New safe packaged milk market	Number of packs delivered to schools	Milk dispatch/received data	Monthly
		Increase in liters of milk collected	Milk collection data	Baseline, monthly
		Increase in size of safe packed milk market in pilot area	Data from processors	Bi-Annually
2	Farmer engagement	Number of farmers engaged with the SMP	Data from milk collection	Monthly
		Incremental value of milk procurement from the pilot area paid to the farmers	Milk collection data	Annually
3	Employment	Increase in employment related to the SMP – Processors, milk collectors, distributors, and project management	Data from processors value chain & project team	Baseline, midline, endline
4	Impact on farmers	Income stability, improved farming practices (via processors' efforts), sense of contribution, perception about children's schooling	Qualitative Research with farmer households	Baseline, midline, endline

### Program Design: Implementation

The team then addressed the questions of the preparation work that would be needed to set up the pilot program, as well as its staffing and budgetary requirements.

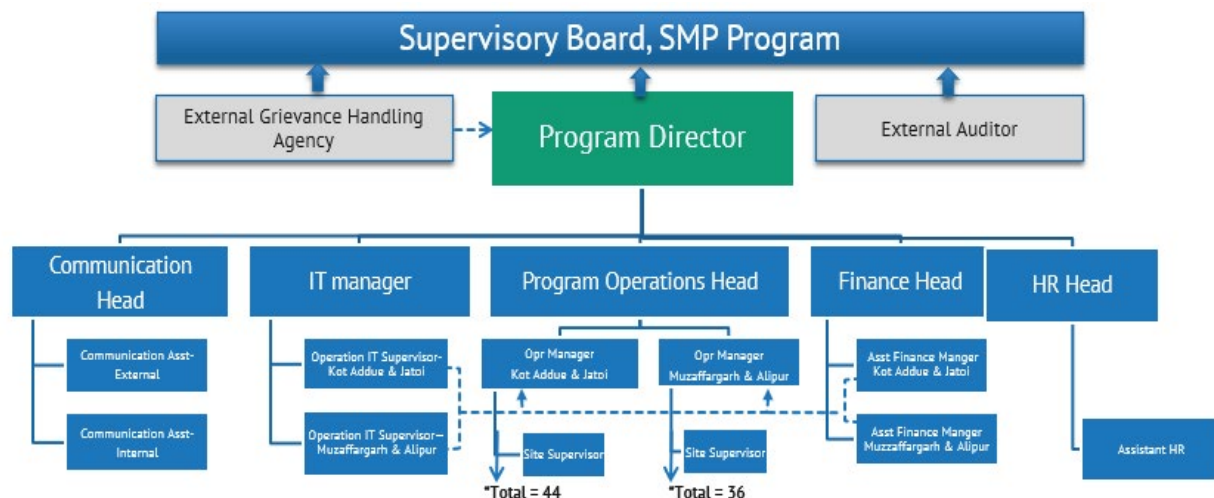
In terms of preparing for a successful start-up, GCNF defined both key actions to take prior to program implementation and what entity might logically be responsible for each as outlined below. This process is estimated to take about three months, after which GCNF recommends that the program be tested out via a “dry run” in a limited number of schools as the pilot starts, to work out any issues prior to scaling up to reach all the targeted schools.



In defining execution processes and roles, the GCNF model defined the following categories, actions, and responsible parties:

- For value chain processes, material procurement, production of the fortified milk packs, distribution and warehousing to be handled by the processors; the actual feeding of the milk to the schools to be managed by Ministry of Education, and waste management to be handled by the Pakistan Dairy Association (PDA).
- Stakeholders, including the PDA, the Ministry of Health, the program management team, and related external partners throughout the process would be responsible for quality control of the product and site hygiene at each relevant location.
- The program management team would be responsible for managing the demand for product, order processing, inventory management, payments, and administration.
- Multiple stakeholders would be responsible for impact measurement, surveys, health tests, and data recording, including the PDA, the Ministry of Health, the program management team, and related external agencies.
- An objective external agency would be responsible for receiving and reporting grievances and monitoring and reporting their resolution, soliciting suggestions and feedback from program participants and beneficiaries, and alerting appropriate stakeholders to any crisis that might arise. The program management team would be responsible for addressing and resolving grievances, considering and implementing modifications based on suggestions and feedback, and ensuring timely and appropriate response to any crisis.
- Finally, the program management team would be responsible for overall program management, administration, and financial reporting.

The management structure that GCNF recommended for the pilot program consists of 93 positions: 83 in operations; 2 in human resources, 3 in information technology (IT), 1 in finance, 3 in communications, and 1 program director, as shown below.



## Program Design: Finance

The cost of the program was originally estimated to be USD 9.5 Million in the first year (about USD 6785 per school in the first year) increasing annually to a fifth-year high of USD 19.3 Million. This original breakdown, based on the quantity and cost of the milk packs (including incremental increases to account for the program attracting an estimated 10 percent more out-of-school children to attend each year) and an overall program management cost of 20 percent, increasing annually by a 10 percent rate of inflation, is shown below.

### BUDGET FOR PILOT PROGRAM

	Year -1	Year -2	Year-3	Year-4	Year-5
Product Cost (PKR)	27.0	29.7	32.7	35.9	39.5
Total Packs Required (M) +10% increased enrolment	47.0	51.7	56.9	62.6	68.8
Annual Product Cost (PKR M)	1269.0	1535.5	1857.9	2248.1	2720.2
Program Management Cost @20% of Annual Cost + 10% subsequent Inflationary increase (PKR M)	253.8	279.2	307.1	337.8	371.6
Total Program Cost ( PKR M)	1522.8	1814.7	2165.0	2585.9	3091.8
Total Program Cost ( USD M)	9.5	11.3	13.5	16.2	19.3
Cost Per School (USD)	6,785	8,101	9,665	11,544	13,803

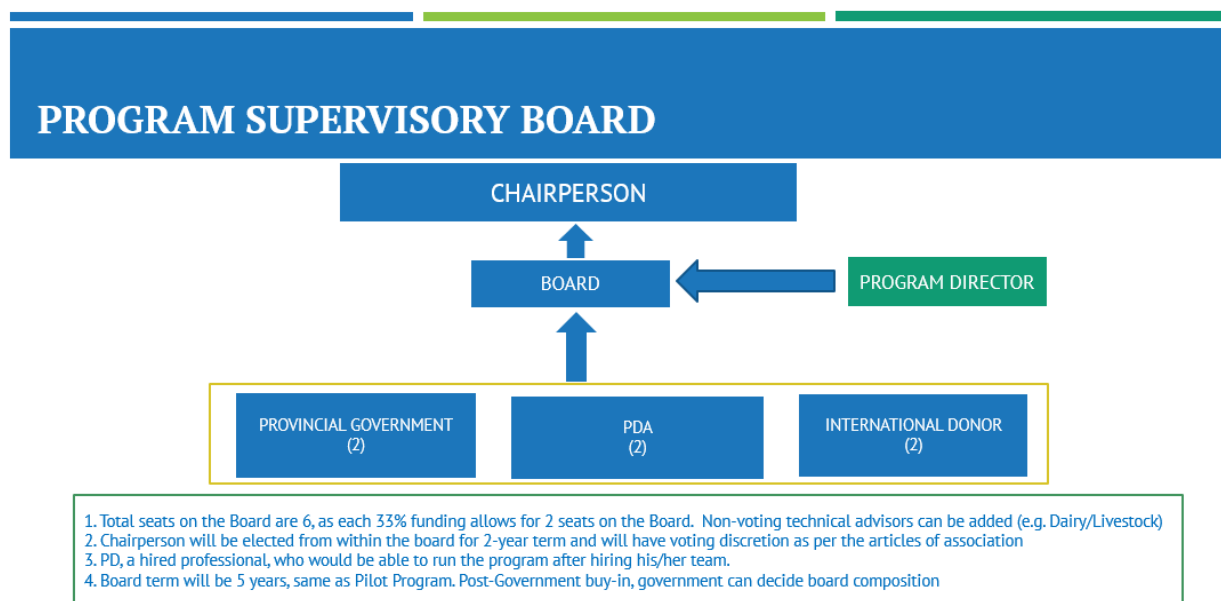
- \* Yearly inflation kept constant @ 10%
- \* 10% increase in enrollment assumed from year 1
- \* USD to PKR conversion kept constant @ 160 PKR

GCNF recommended that the costs of the five-year pilot be shared between three primary stakeholders. First, because long-term sustainability requires governmental support from the outset, GCNF recommended that the Government of Punjab provide up to one third during the first two to three years, and based on demonstrated success, phasing up its commitment after that period until Government support would cover the full cost of the project by the end of the pilot. The remaining two thirds in the initial years were proposed to come from an international donor and the Pakistan Dairy Association, with reliance on their financial support reducing as Government support increases.

## Program Design: Governance

The recommended governance structure would include a supervisory board consisting of two members each from the three envisioned primary stakeholders: the Provincial Government, the Pakistan Dairy Association, and an international donor. A Chairperson would be elected every two years, ensuring representation from each of the stakeholders on rotational basis. The Program Director would report to the Board, and technical advisors (e.g., dairy or livestock experts) could be

invited to serve in non-voting roles. The proposed Terms of Reference for the Board can be found in Appendix I.



### Program Design: Additional Comments

This concluded the core design of the pilot program recommended by GCNF, based on a five-year pilot program providing school milk for 208 school days per year to 191,500 students in 1400 schools in Muzzafar Garh, as outlined above.

A base presentation was developed on 19 June 2020 that included all of these components and recommendations. It is available in Appendix J. This base presentation served as the core resource for shorter presentations tailored to specific stakeholders in the consultations outlined in the next section. While the base remained essentially the same throughout the consultancy, the discussions with IFC and the stakeholder consultations led to various modifications as is also discussed in the next section.

By 17 June 2020, the severity of the COVID-19 pandemic was clear, and the Government of Punjab announced that schools would be closed indefinitely. This induced IFC to ask GCNF to provide insight into how other countries were handling school meal programs when schools were closed and recommend whether to propose the pilot school milk be implemented in the province if schools remained closed. GCNF's presentation on the topic can be found in Appendix K. Discussion of the findings resulted in the agreement between GCNF and IFC that the pilot program should only be implemented in Punjab Province if schools were open.



## STAKEHOLDER CONSULTATIONS

Relevant action items:

- # 3b) Discuss the design of proposed SMPs for Pakistan with dairy industry representatives and with the Government at a workshop to be organized by IFC.
- # 4) Hold follow-up meetings with UHT milk industry stakeholders (including the Pakistan Dairy Association, Friesland Campina, Nestle and Tetra Pak) and with the Government in order to develop the detailed design of a model for a school milk program with a credible milk quality assurance system and with a credible system for ensuring that the milk would be provided to and consumed by schoolchildren on a daily basis.
- # 6) Collect qualitative feedback from the parents, teachers and community leaders on the SMP and develop the criteria on what data should be collected to monitor the overall progress of the SMP, including its impact on enrollment, drop-out rates and the health parameters of the children taking part in the pilot SMP;
- #7) Collect and analyze information about Friesland Campina's and Nestle's milk supply chains in order to develop criteria and methodology for monitoring the program's impact on smallholder farmers' incomes and livelihoods;
- #8) Prepare a detailed description of the required infrastructure (including the regulatory and the legal infrastructure) and the capacity for the implementation of the School Milk Program

The COVID-19 pandemic precluded GCNF contracting with a local research institution as planned, to collect qualitative feedback from the parents, teachers, and community leaders on the proposed pilot school milk program.

Key stakeholder consultations took place throughout the consultancy, but not quite as planned, primarily due to the pandemic. GCNF began to advise the primary potential stakeholders of the purpose of the consultancy in April. In June, once the results of the global analysis and pilot School Milk Program design were drafted and approved for use by IFC, formal consultations began. Stakeholder consultations continued throughout the remaining consultancy period; nearly all were held remotely, via Zoom and telephone. The dates of each formal meeting and summaries of the discussions are provided in this section, in chronological order. When relevant, follow-up actions are also noted in this section.

### **26 June Meeting - Tetra Pak**

Agenda: Share and discuss the preliminary GCNF proposal for a pilot School Milk Program and gain feedback from Tetra Pak

Attendees:

#### Tetra Pak:

- Mayank Goel, Dubai-based Director of Food for Development, Greater Middle East & Africa
- Raza Hussain, Switzerland-based Key Account Manager
- Mursalin Ammar, Pakistan-based Marketing Manager (Dairy).

#### IFC:

- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

#### GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi
- Dr. Fauzia Waqar
- Ryan Kennedy

#### Key Points/Discussion:

- The Tetra Pak team appreciated the quality of the overall proposal prepared by GCNF and in particular supported the KPI detailing and pilot area selection from technical and strategic perspectives.
- The Tetra Pak team commented that the proposed financing structure contribution could change based on potentially obtaining support from local influential stakeholders, information technology investors and fortification partners (suggesting DSM as potential partner.) The team also informed that, as per experience, governments like to go through a tendering process when procurement from their end is involved.
- The Tetra Pak team suggested to improve the program design by proposing a small-scale test run period to identify and address any issues before scaling up the program and by including exclusive bar code and other design elements on product packaging to avoid commercial selling of product.
- The IFC team suggested to highlight fortification additions on proposed product in comparison to standard whole milk.
- The group discussed the current Government term in office and suggested strong social mobilization and lobbying for legislation on SMP to help to ensure program sustainability.
- The Tetra Pak team agreed to participate in the planned session with the Pakistan Dairy Association.

#### Follow-up Actions

- Arlene Mitchell contacted fortificant-provider DSM (a member of GCNF's Business Network), provided them with an overview of the consultancy, and inquired about their level of interest. DSM informed GCNF that they were already active in Pakistan through their

partnership with the World Food Programme and asked to be kept informed of progress regarding the proposed pilot School Milk Program.

- Arlene Mitchell informed Rafael Fabrega of the meeting. He is Tetra Laval's (global) Director of Food for Development, based at their headquarters in Sweden.

## **29 June Meeting – Nestlé**

Agenda: Share and discuss the preliminary GCNF proposal for a pilot School Milk Program and gain feedback from Nestlé

Attendees:

Nestlé:

- Sheikh Waqar Ahmad, Head of Corporate Affairs & Climate Change Champion
- Zeeshan Sohail, Public Affairs Manager

GCNF:

- Memosh Khwaja
- Kashif Hussain Bhatti

Key points/Discussion:

- The Nestlé Pakistan team noted that they appreciated the quality of the overall proposal prepared by GCNF.
- The Nestlé Pakistan team asked for clarification on the financial contribution requirement from an involved processor in terms of absolute value and in terms of the cost per milk pack.
- The Nestlé team also inquired as to the scope of marketing leverage for processors in return for financial participation. It was suggested to develop a marketing framework for the program, and to clarify to what extent other stakeholders will contribute financially and facilitate execution.
- The Nestlé Pakistan team shared suggestions on the design of the milk packs, assuming a multi-party contribution to the initiative.
- The Nestlé team also suggested to get early confirmation from the Government and international donor on willingness to contribute financially, and to ascertain whether processor participation will go through a bidding process as per typical Government protocols.
- The GCNF and Nestlé teams agreed to meet again the week of 2 July to discuss a marketing framework, and gain Nestlé's feedback as to a possible financial contribution to the program from their company.

## **01 July Meeting – Pakistan Dairy Association (PDA)**

Agenda: Share and discuss the GCNF pilot School Milk Program proposal and gain PDA feedback

## Attendees

### PDA:

- Dr. Shehzad Amin, Chief Executive Officer PDA
- Farrukh Shahzad, Secretary General PDA
- Dr. Muhammad Zubair, Manager Operations PDA
- Sulaiman Sadiq Monnoo, Chairman PDA & CEO Dairy Land Pvt. Ltd.
- Ali Ahmed Khan, Senior Vice Chairman PDA & Managing Director, Friesland Campina Pakistan Ltd.
- Jorge Montero, Vice Chairman PDA & Managing Director, Tetra Pak Pakistan Ltd.
- Syed Yawar Ali, Director PDA & Chairman, Nestle Pakistan Ltd.
- Anjum M. Saleem, Director PDA & CEO Shakarganj Food Products Ltd.
- Syed Saud Pasha, FrieslandCampina Engro Pakistan Ltd. Representative to PDA for Committees & Director AgriBusiness & Corporate Affairs, FrieslandCampina Engro Pakistan Ltd.

### IFC:

- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

### GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi
- Ryan Kennedy
- Dr. Fauzia Waqar

### Key points/Discussion:

- The PDA team sought clarification on aspects of the proposed partnerships, particularly as relates to branding opportunities and procurement options, in view of Pakistan's Public Procurement Regulatory Authority (PPRA). Clarification was also sought as to what entity or entities would have responsibility for distribution and collection of the milk packs in the program.
- The PDA members raised questions and concerns related to the pilot location and milk sourcing locations. These issues were addressed and aligned.
- The main concerns shown by PDA members was related to the Government's financial participation, how supplier payments could be ensured, and its full support and ownership during the scale-up phase.
- The PDA also showed interest in managing administrative elements of the program.

- Several good suggestions were put forward by PDA members. These included: digitalization of the monitoring and evaluation component, ensuring proximity of the program management team to the program sites and to one another, and the need for a media strategy to build community support and for a Government champion to build support for sustaining the program. Other suggestions included the need for breed improvement training (to improve per animal milk production, which is currently extremely low), and the recommendation that nutrition and hygiene education for communities be included in the program.
- The PDA chairman stated that the PDA must be a part of the program for its success.
- It was agreed that the PDA would meet internally to consider the proposal, particularly the proposed role for PDA and its financial contribution.
- GCNF said it would be meeting with Government stakeholders within the next two weeks, and suggested meeting with PDA thereafter to update PDA and gain feedback regarding the PDA's responsibilities and the financial model for the proposed pilot School Milk Program.

## **11 July Meeting - Government of Punjab**

Agenda: Share and discuss the GCNF pilot School Milk Program proposal and gain feedback from the Government of Punjab

Attendees:

Government of Punjab:

- Khalid Sultan, Member Education – Planning & Development
- Captain Usman, Secretary Primary and Secondary Health – Ministry of Health
- Qaiser Rashid, Additional Secretary – Schools Education
- Bashir Goraya, Additional Secretary – Literacy & Non Formal Basic Education
- Syed Tanvir Hyder, Associate to Additional Secretary – Literacy & Non Formal Basic Education

IFC:

- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi
- Ryan Kennedy

#### Key points/Discussion:

- The Government officials sought clarification on program design elements related to possibility of considering Non-Formal Basic Education schools, supply of safe and clean milk, program management responsibility, and the robustness of program impact measurement.
- Clarification was also sought on scope of IFC's role with respect to technical and financial support.
- The Additional Secretary – School Education highlighted that a school feeding proposal prepared with the help of World Food Programme has already been approved by the Planning and Development department which should be considered by GCNF for its design. He put special emphasis on use of indigenous food for sustainability of program.
- The Secretary Primary Health was positive in his feedback on the proposal, confirming full support of the health department in assigned roles. He suggested adding private schools to the scope and asked the team to consider engaging the Punjab Food Authority to approve the customized product for the pilot, and for making it available in schools.
- The Additional Secretary – Literacy and Non-Formal Basic Education apprised the team of their schools in the targeted districts and recommended their inclusion in the pilot.
- The Member Education from Planning and Development department apprised the team that a Health & Nutrition cell already exists within the department, and that a malnutrition program is already in execution in the Southern Punjab province. He further commented that if the GCNF proposal is evaluated as reasonable it could be considered for Punjab's Annual Development Plan.
- The workshop concluded with assurance of support from all Government departments in further evaluating and refinement of the GCNF proposal.
- The Additional Secretary Education agreed to share the approved WFP school feeding program concept with GCNF.
- The Member Education P&D department advised that the GCNF proposal will be discussed in an internal multi-department meeting and a joint feedback would be shared with GCNF.

#### **24 July Meeting - World Bank**

Agenda: Share & Discuss the GCNF Pilot School Milk Program Proposal

Attending:

World Bank:

- Lire Ersado, at the time Tbilisi-based Program Leader for the South Caucasus countries, Europe and Central Asia, but due to be reassigned to Pakistan

IFC:

- Ivan Ivanof, Global Animal Protein Advisory Lead
- Thomas Bauer, Principal Industry Specialist
- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services

- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

#### GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Ryan Kennedy

#### Key points/Discussion:

- GCNF was asked whether technology (MIS) is incorporated in the program design to induce donor confidence and to ensure milk actually goes to school children with transparency and traceability. GCNF responded that the proposal does include biometrics, unique and traceable package identification and labeling, and a helpline for parents and others to report issues.
- What are the learnings from previous SMP in Pakistan? Why there was no traction/continuation if it was successful? GCNF responded that the program results were impressive, but the funding did not continue and hence the program ended. GCNF was unable to identify a clear cause beyond the fact that external funding ended. Two major hypotheses that GCNF stated for the program ending were; a) That the Government was not adequately involved, as that is most often a reason for the failure of school feeding programs that are funded and managed by external entities; and b) The program was run by an American non-governmental organization; sometimes externally-controlled organizations do not have a strong incentive to hand programs over to governments.
- The assumption of a 10 percent inflation makes product 50 percent more expensive in 5 years, especially with exchange rate parity. With USD/PKR parity over a period, some of this cost may get off-set.
- Sustainability: Possibility to ensure (by making a rule) that bulk portion of the milk will come from local farmers? GCNF responded that the core of the program is to use local milk from local farmers (homegrown approach) to ensure safety and quality of milk. Formulating a requirement of having bulk of the milk supplied by local suppliers will be very useful as Government of Punjab has emphasized indigenous milk production during the workshops. Additionally, the Government has banned soda and other beverages over health concerns because of sugar. They have been looking for a healthy alternative and this SMP can cover that gap. Various laws in the past few years have discouraged use of powdered milk and Government has asked for indigenous development. Follow-up: GCNF to explore the possibility of making it a requirement.
- Health: First 1000 days of children are extremely important for nutritional benefit. Are we addressing the birth till 5 years period, before school starts? Any plan or thoughts to reach the pre-school children? GCNF responded that brain and physical development continues until age 21, and new literature and thinking suggests that the first 8000 days are important for nutritional benefit for children. There is contribution of improved education outcomes on the next generation so there is increasing interest in reaching adolescent girls at school, keeping them at school, and nourishing them so they become healthier mothers - a school nutrition program can support all of these goals. There is also the issue of efficiency. A large number of children can be reached cheaply when they are at school,



while reaching age 2 to 5 years old children is a challenge for most countries because there is no institutional way of reaching them. Most countries do not have large-scale pre-school programs. So, the challenge is known, but a practical, affordable solution has not been fully defined. It is understood, though, that school meal programs help pre-schoolers, since they have an impact on overall household food security. When school-going children are fed at school, it leaves more resources for the rest of the family.

- GCNF also pointed out that school feeding programs and programs targeting children's first 1000 days are not in competition. They complement each other. In addition and specifically in the case of Pakistan, if the dairy value chain is improved and the milk is safer, it benefits the whole community, and if the School Milk Program succeeds in the way it is envisioned, all children will benefit eventually.
  - GCNF noted that Dr. Donald Bundy at London School of Tropical Hygiene and Medicine is a leading expert on the importance of first 8000 days of a child's life in determining his or her long-term health and productivity. Follow-up: More information on the first 8000 days to be shared by GCNF.
- Product Selection: Were lactose free and flavored milk options considered? GCNF responded that lactose issue for Pakistan should be looked into as Asians have a bigger problem with it. Flavored milk was ruled out as a healthy choice because of high sugar content. Follow up: Lactose issue and demand to be looked into by GCNF.
- Financials: Are the cold chain, storage, etc., costs built into the program? GCNF responded that all these factors were considered, including as a criterion for site selection. The shortlisted site has enough milk availability, collection by dairy processors in cold chain vehicles is already happening, nearby processing facilities and the distribution network is also available and appropriate. For the pilot, it is not a big financial or logistical constraint for processors as the costs are not too high. When the program is scaled up, the dairy processors should be willing to invest as the benefits to the industry will increase.
- World Bank role: A new World Bank human capital project for Punjab is already approved and implementation in some of the districts is about to start. Will you be able to meet the August/September school timelines for the program given the situation on ground? The new World Bank teams may be able to help with the next steps of the School Milk Program. GCNF responded that even if all agreements were in place, some on-ground work will still be required before the milk actually gets delivered to children. Also, GCNF proposed that the program be piloted in some select schools to work out any issues before scaling to all 1400 schools.
- World Bank role: What is the expectation from World Bank and how can they help to support this program? GCNF responded that there are four key areas in which World Bank's support would benefit the program
  1. The Bank could assist with the human capital setup, its funding and support.
  2. WB's interface with high levels of Government can be very useful too.
  3. Help with bringing funding sources (Government, World Bank, external donors) on board would be beneficial.
  4. The World Bank has technical resources that could be used to advocate for the program, and--when the project is running--to help ensure that it is staying on track.

- World Bank responded that they can help with all four areas mentioned above as they fall within the Bank's realm. The World Bank shared there is a need to better understand and absorb the information in order to identify the concrete steps that the Bank team can do. Funding would be the toughest, but all others are doable right away. Follow up: World Bank representatives to be invited to join the final presentation/workshop with the Government, after incorporating all inputs from all stakeholders. It will be very useful to hear from the stakeholders directly-- especially Tetra Pak--to ensure there are no conflicts of interest, etc. After this workshop, the same can be presented to the Country Manager of IFC and World Bank directors given their interest in the School Milk Program and the work being done by GCNF and IFC.
- Stakeholders: Which larger dairy processor are engaged in this program? GCNF: There are only 3 or 4 large processors with the capacities needed for the program. Regardless, the Pakistan Dairy Association is engaged and GCNF has not indicated any preference for a particular processor. Nestle and Campina are the only two large international processors operating in the country.
- Financials: Financial support is equally split, but it may need to be reworked like the larger portion may be given to donors. GCNF response: It certainly can be modified. The key is to keep the Government involved with some stake in the program. The previous program in Pakistan did not continue once the donor funding was depleted, apparently because there was no local ownership and funding to sustain it.

#### Follow-up actions:

- GCNF and IFC reviewed and clarified the financials, reflected in subsequent documents and presentations.
- GCNF conducted research into the issue of lactose intolerance and proposed remedies if encountered in the pilot program. See Appendix L.
- GCNF provided the World Bank and IFC with additional information about the importance of the first 8000 days of a child's life. See Appendix M.
- World Bank representatives were invited to subsequent meetings as proposed.

### **19 August Meeting – World Food Programme (WFP)**

Agenda: Share and discuss the GCNF pilot School Milk Program proposal, gain WFP feedback; learn more about the earlier WFP proposal for school feeding activities in Punjab Province.

#### Attendees:

##### WFP Bangkok Regional Bureau

- Carla Mejia, Food Technologist
- Henriette de Wit, Education Specialist

##### WFP Pakistan Country Office

- Tahir Nawaz, Head of Education & Social Protection
- Ume Kalsoom, Food Technologist
- Sanam Mallah, School Feeding Focal Person

#### IFC

- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

#### GCNF:

- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi
- Ryan Kennedy

#### Key points/Discussion:

- WFP sought clarification on target beneficiary profile, product formulation, product pilferage controls and WASH conditions, which were addressed.
- Clarification was also sought on smallholder farmer capacity and quality status with respect to milk supply, and dairy processors intervention status/expectation at farmer level to meet food safety requirement and drive economic development.
- The WFP regional team commented on importance of preparing a food safety management system and a feedback mechanism for incident management.
- The WFP team suggested to consider reducing size and duration of program to attract funding.
- It was also suggested to consider inclusion of a snack in addition to milk as part of the meal package, and to tackle the potential lactose intolerance issue.

Following the School Milk Program presentation and discussion, WFP presented a short update on the history and status of the school meal program with the Punjab Government. Key points from the WFP presentation and discussion:

- WFP has also identified South Punjab as the region for conducting the program in its proposal.
- WFP suggested three feeding models to the Punjab Government, one of which is comprised of UHT milk along with fortified biscuits.
- WFP has helped the Punjab Government prepare a PC-11 (a proforma for surveys and feasibility studies related to development projects in Pakistan) for the school meal program but, there has been no further activity on the proposal since the start of 2020.
- WFP has prepared its research and school feeding proposal on the direction of Punjab Government and the program proposed was to be funded by the Punjab Government.
- WFP pointed out that the Pakistan Prime Minister has announced an anti-stunting program with funding from BISP (the Benazir Income Support Programme, Pakistan's national safety net program) in which WFP will participate. The program aims at a scope of 500,000 beneficiaries including mothers and infants in 10 districts.
- Next Steps: Both WFP and GCNF/IFC will review internally the potential for collaboration and revert back with possibility of a working group to align a collaborative proposal. Both

teams will also aim gain clarity regarding the Punjab Government's position on timing, budget, and the preferred feeding model.

## **27 August Meeting with Planning Commission of Pakistan**

Agenda: Share & discuss the evolving GCNF pilot School Milk Program proposal with the Planning Commission of Pakistan

Attendees:

Government:

- Dr. Hamid Jalil, Member Food Security and Climate Change, Planning Commission of Pakistan
- Nazeer Ahmed, Deputy Chief Nutrition, Ministry of Planning, Development, and Reforms

Scaling Up Nutrition Secretariat/Pakistan:

- Imranullah Khan, Information
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan

GCNF:

- Arlene Mitchell
- Kashif Hussain Bhatti
- Ali Mehdi
- Ryan Kennedy
- Dr. Fauzia Waqar

Key points/Discussion:

- The Government officials sought clarification on program design elements related to target age group, supply of safe and clean milk, product storage and waste disposal, which were addressed.
- Dr. Hamid Jalil raised the issue of area selection from a national perspective and highlighted that according to BISP data Sindh and Baluchistan were priority areas. It was clarified that the mandate of current project is limited to province of Punjab.
- Dr. Hamid Jalil also suggested supplementing milk with other meals like egg or fortified biscuit.
- Dr. Hamid Jalil explained that a long-term food security policy is being designed in which addressing stunting is a priority.
- The Planning Commission also explained factors based on which all project proposals are escalated to the Federal level, and also explained the project approval process.
- Next Steps: It was advised that the GCNF team could coordinate with the Nutrition Cell for further meetings if required.

## **07 September Workshop - Government of Punjab**

Agenda: Share & discuss the evolving GCNF pilot School Milk Program proposal with the Government of Punjab

Attendees:

Government of Punjab:

- Dr. Salman Shah, Advisor to CM, Economic Affairs and Planning & Development
- Ms. Sumaira Samad, Secretary, Literacy & Non-Formal Basic Education, Punjab
- Mr. Fazeel Asif, Head, Special Monitoring Unit, CM Office
- Dr. Sohail Saqlain, Member Health, Planning & Development Board, Punjab
- Ms. Rafia Haider, Additional Secretary, Primary & Secondary Health, Punjab
- Mr. Imtiaz, Deputy Secretary (Planning), School Education, Punjab
- Mr. Amir, Additional Secretary, Literacy & Non-Formal Basic Education
- Mr. Khurram Shahzad, Deputy Secretary to the Chief Minister (Faisalabad Division)
- Mr. Rana Mehmood, Chief Planning & Evaluation Cell, Agriculture, Punjab
- Dr. Shagufta Zareen, Program Director, Policy and Strategic Planning Unit, Health
- Mr. Rao Aneeq, Special Monitoring Unit, CM Office

GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi
- Dr. Fauzia Waqar
- Ryan Kennedy

Background & Objective: The Workshop was set up by the Office of Chief Minister Punjab after several telephone discussions with the Government of Punjab stakeholders, to address all of them together. A meeting notice was sent from the Office of Chief Minister, Punjab to the relevant five main Provincial Secretaries, namely, Schools Education, Literacy and Non-Formal Basic Education, Health, Agriculture, and Planning and Development Board, Punjab. The objective was to send a strong signal to the Provincial stakeholders to support and cooperate with the GCNF-IFC SMP Pilot for Punjab.

Key points/Discussion:

- The Workshop was chaired by Dr. Salman Shah, Advisor to Chief Minister Punjab, Economic Affairs, Planning & Development. The Special Monitoring Unit (SMU) reports directly to the Chief Minister Punjab as does the Advisor, Dr. Salman Shah.
- Dr. Shah showed interest in the program spanning 365 days, rather than the 208-day school year, and in the program being scaled up to be implemented throughout the whole province.
- Dr. Shah stated that this proposal could be considered to be a flagship program for the Government and offered full support.

- Dr. Shah suggested the program cost should be lowered and asked GCNF to make it as efficient as possible; consider the cost/child/month; compare the program's milk pack product cost to shelf prices; evaluate the economy of scale of bulk volume; and consider re-evaluating and reducing the program management cost, both in the pilot phase and in scale-up
- Dr. Shah also suggested that duration of the pilot phase should be shortened, and that the program be scaled up faster. He requested a review of other programs in place in Punjab, to bring it all together towards the most optimal and best possible design.
- Dr. Shah asked whether the project management structure could sustain a scaled-up program and how management costs would be affected? He suggested incorporating the Government's existing technology and nutrition offerings to support and institutionalize scale-up.
- Dr. Shah urged GCNF to act quickly, to come back in a week with its response to these comments and questions, and to provide a detailed analysis of the presented costs.
- Dr. Shah indicated agreement to partner with private sector, donors, and non-governmental organizations to ensure the success of the program.
- Dr. Shah indicated that the program is important. "This is like motherhood", said, comparing the school milk program to mothers nourishing their children, "Once the costs are cleared up, we have to move forward with this program.
- Dr. Sohail Saqlain, Member Health, Planning and Development expressed concern about serving milk to children with empty stomachs and stressed the need to address the lactose intolerance issue. He suggested that the School Milk Program should not be misused, with milk intended for schoolchildren being provided to infants, and suggested that GCNF take additional KPIs of health, such as dental health, into account.
- Dr. Shagufta Zareen, Program Director – PSPU Health stated that data (attendance, drop-outs, health & nutrition status) is available with the Government through a school health and nutrition program already in place" in Punjab. She stated that deworming, health check-ups and WASH (water, sanitation and hygiene) trainings are already in place in the above program and that a substantial human resources and administrative setup already exists under Government administration to manage such a program. All of this could be considered for costing and design optimization. She offered to collaborate to prepare an optimal program, to be completed by the end of September.
- Mr. Rana Mehmood, Chief Planning & Evaluation, Agriculture, suggested that smallholder dairy farmers should be stakeholders too and they can be engaged via the Ministry of Livestock, saying "If additional milk is collected the small dairy farmer will have more impetus to increase productivity".
- Next Steps: GCNF to revert with quantitative impact/scenario as per recommendations by Dr, Shah; to continue to liaise with the SMU and keep them posted on progress; to meet with a few of the attendees to learn more regarding the programs, personnel, and practices of the Government of Punjab and to discuss how Government resources could be integrated into the proposed School Milk Program.

**07 September – Communication to GCNF from Lead, Social Services Division, Special Monitoring Unit, Government of Punjab**

"Dear Mr. Mehdi,

Thank you for taking the time, the meeting went productive. I would like to ask a few questions related to the pilot proposed during the presentation:

- What type of schools are being targeted i.e. Primary, Middle, Secondary or Higher Secondary?
- Have you taken into account the new Local Government Act while designing the execution process?
- Alternative methods of delivery like ration cards has been considered or not?
- There was a similar nutrition program piloted in 2017 I guess, where public schools students were provided with milk and biscuits. However, it wasn't much of a success. Did you go through it by any chance?
- Punjab Food Authority is now able to test milk in 2 minutes, have you taken that in account for the provision of open milk to students?

Answers to these queries would be helpful in a more robust design of the program. Moreover, following agenda points were highlighted by Dr. Salman Shah for follow-up meeting next week:

- Detail cost analysis and cross-market comparison of the program
- Collaboration with existing programs in Punjab for child nutrition.
- Expanded model and institutionalization of the program across the province.

Thank you for your consideration.”

Follow-up Actions:

GCNF sought meetings with the relevant Health and Education officials. While successful in meeting with Dr. Shagufta Zareen, Program Director, PSPU, Health on 09 September as documented below, efforts to meet with Education officials were not successful and delayed GCNF's response. GCNF submitted responses to the questions raised on 24 September. The two documents submitted can be found in Appendix N.

## **09 September Meeting with Health Department, Government of Punjab**

Agenda: To discuss the support of the Government in order to reduce the implementation cost of the proposed School Milk Program

Attendees:

Government of Punjab:

- Dr. Shagufta Zareen, Program Director, Policy and Strategic Planning Unit, Health

GCNF:

- Memosh Khawaja
- Kashif Hussain Bhatti
- Dr. Fauzia Waqar

Key points/Discussion:

- The PD-PSPU apprised the GCNF team on the current operation in place in Punjab districts as follows:
  - Government is running a School Health & Nutrition Program (SH&NP) with staff under Basic Health Units. Their job is to do screening of the primary and middle school children for detection of common health problems by general physical examination, gather biometric data, and enter required information in their database. They are also doing capacity building of school teachers for screening and promotion of hygiene education among the school children.
  - School teachers are also being given trainings regarding health of children; if the teacher notices any abnormality, they are to immediately inform the Health Department under the monitoring of SH&NP.
  - Education-related data is already being gathered from the Government schools by PSPU. Health check data is being added to it and is being shared back with Education department.
- The PD-PSPU advised GCNF how their existing activities could be leveraged for the proposed School Milk Program:
  - Data from SH&NP can be used as baseline data for the program. However, Agha Khan University is planning a scientific study with the Government; this data will be more robust and is recommended to be a stronger source of baseline data.
  - Services of SH&NP staff can also be used to measure height, weight, mid-upper arm circumference (MUAC), and body mass index (BMI) for impact evaluation after the intervention.
- Discussion between PD-PSPU and GCNF team led to clarification and a way forward on the following activities:
  - Responsibility for Iron and Vitamin D levels through blood testing does not come under SH&NP, hence separate sampling is suggested pre- and post-intervention.
  - The PD-PSPU did not report lactose intolerance as a major concern.
  - The Agha Khan University team could be consulted to understand how and if specific issues (like lactose intolerance and Vitamin D) are assessed and considered to be problematic in the population.
  - A deworming initiative for schools is planned but is not yet being rolled out on large scale.
  - The cost of necessary material is not yet planned within Government budgets.
- Discussion regarding the organizational structure as follows:
  - The PD-PSPU said that—with training and incentives—the roles of existing SH&NP field staff could be expanded to include stock management and ordering.
  - The role of teachers could be also discussed for sharing program tasks.
  - At the district level, there are district development health centers (DHDC) with focal persons, like regional officers, who could be used for supervision.
  - Existing Government resources could also be used for the roles of Project Director, IT, Finance and Human Resources for the SMP project. For this, however, alignment with the Secretary of Health and Education would be required, keeping in view the capacity and capability of the staff.



- The PD-PSPU did not encourage a matrix organization structure with dual reporting.
- The GCNF team highlighted importance of both cost effectiveness and controls, and of ensuring that the profiles of Government staff match the work to which they are assigned.
- The GCNF team shared its detailed documents of processes, organization, and related project management costs, and the PD-PSPU agreed to provide specific feedback and to recommend an optimal organization and activity structure, incorporating current Government employees.
- The PD-PSPU also showed willingness to link Agha Khan University team with GCNF team to align specific KPI measurement techniques and other collaboration opportunities.
- The PD-PSPU will inform and align the Secretary Health on meeting outcome and next steps, and thereafter will try to help organize a meeting for GCNF with the Education Department to cover these topics. They noted, however, that the meeting might be difficult to arrange in the near future.

**15 September – GCNF sent the 07 September presentation and a formal request to meet with Ms. Sarah Aslam, Secretary of Schools Education, Government of Punjab**

No such meeting was ever arranged in response to this, or to other less formal requests by GCNF.

**24 September – Revised submission to the Special Management Unit, Government of Punjab**

GCNF submitted to the Special Management Unit a revised presentation addressing the questions raised in the 07 September meeting with the Government of Punjab as well as detailed calculations used to determine the program management costs. As stated in the 07 September section above, these can be found in Appendix N.

**07 October – Meeting between Special Monitoring Unit, Chief Minister Punjab and Ali Mehdi, GCNF**

Ali Mehdi documented the meeting as follows:

“Please note: I was invited to see Dr. Shah yesterday, October 7th at the Office of Chief Minister Punjab. In presence was the Special Monitoring Unit, Chief Minister Punjab.

Agenda being the developmental needs of Punjab, we followed up on the next stage for the GCNF-IFC SMP Pilot, the final workshop.

1. We reiterated the need for the Government of Punjab to play an integral role going forward not just in an administrative collaboration, also in its fiscal capacity.
2. Dr. Shah was happy to see the per school cost, but he said that he had also asked for per student cost as that would give him an idea on the fiscal requirements of scaling up.
3. Final workshop so far will most probably be the week of 19-23 October.

4. We proposed to have the final workshop with COVID-19 protocols at the Committee Room, Office of the Chief Minister Punjab.”

Follow-up actions:

On 27 October, the requested information, in the form of the GCNF presentation, was sent to all invitees to the final workshop by Memosh Khawaja. The presentation can be found in Appendix O.

### **13 October - Arlene Mitchell Communication to GCNF team**

Following clarifying discussions with the IFC team, Arlene Mitchell’s instructions to the GCNF team in preparation for the final workshop were as follows:

“...we agreed in the Friday IFC meeting that we would revise our goal for the workshop to be to achieve the commitments of the Punjab Government and the PDA to work together to take the proposed program forward. That means:

The Government needs to say in the workshop that the SMP pilot is important enough to them that they are willing to identify a lead person and to pursue necessary actions to get the program started.

The PDA needs to say in the workshop that the SMP pilot is important enough to them that they are willing to identify a lead person and to pursue necessary actions to get the program started.

The requested No Objection Certificate (NOC) needs to be done  
GCNF needs to "turn over" to the Government and the PDA its final proposed model for the pilot SMP. This should include GCNF's research results regarding some possible funding sources to be considered. (No funding source can be credibly approached if the Government is not clearly asking for the support.)

Beyond that, if Tetra Pak wants to state its support above and beyond their role in the PDA, that would be welcome. Likewise, if WFP is willing to state that they are ready to help get the program up and running, that would also be welcome. If the World Bank or IFC want to be there and mention any kind of (in-kind or other) support, that too would be welcome. If the Government and/or the PDA wish to ask for assistance from any given source (GCNF or one or more of the in-country team, or WFP, or someone else entirely), that would probably help.”

### **14 October Meeting – Pakistan Dairy Association & FrieslandCampina**

Agenda: Alignment on key points before joint workshop with the Government of Punjab

Attendees:

PDA:

- Dr. Shehzad Amin, Chief Executive Officer PDA

- Syed Saud Pasha FCEP Representative to PDA for Committees & Director Agri Business & Corporate Affairs, FrieslandCampina Pakistan Ltd.

GCNF:

- Memosh Khawaja
- Kashif Hussain Bhatti

Key points/Discussion:

- Mr. Saud Pasha commented that, overall, the pilot project has improved in its design and looks good. However, he shared 3 main observations and concerns: 1. Large volume required for full scale-up will create pressure on supply and therefore on market prices. 2. Large full scale-up volume will also require investment and time to gear up and therefore without any firm commitment will be a challenge for the industry. 3. The program management should not be left to the Government and critical components of the program should not be compromised to save cost, as per experience.
- Towards above, GCNF and PDA discussed solutions and recommendations as follows:
  - GCNF also will not recommend Punjab-wide scale-up; rather will recommend scaleup to South Punjab districts (involving about 200k litres) which will address critical project KPIs.
  - Either milk sourcing should not be limited to the South Punjab districts to manage supply and prices, or it should be in conjunction with Government initiated dairy development projects or a 'minimum pasteurization act' as pilot for these districts (in line with Punjab act effective 2022.)
  - The hybrid Government and independent program management is proposed to balance cost and controls. Critical activities of the program will not be reduced and will remain independent.
- Dr. Shehzad Amin raised a question on how distribution will be executed to the schools. GCNF clarified that a sufficient cost has been built in the model to distribute product from local distributor to schools including possibility of a local warehouse. The execution responsibility can be negotiated with either the distributor or through an independent party.
- Upcoming Joint Workshop: GCNF informed PDA that a bilateral meeting with the Government is foreseen in the coming days where both Chairman and CEO should attend to represent PDA. Syed Saud Pasha should attend it as representative of the lead processor, and Tetra Pak as stakeholder and supporter of SMP.
- GCNF proposed that PDA can prepare and present 1 or 2 slides in the meeting with the Government, to share their support for the pilot project in form of financial subsidies already offered and in other expert areas, and to take the project forward with the Government as per their guidance. The PDA can also share their concerns and recommendations on the scale-up as highlighted above.
- Dr. Shehzad Amin agreed to discuss the above workshop points with the Chairman and revert by the end of the week. PDA chairman is not available next week; his availability options will be checked by GCNF.

## **20 October – GCNF Communication to IFC**

Arlene Mitchell emailed the IFC team as follows:

“We are encountering very unfortunate circumstances in attempting to schedule the final stakeholder workshop. Ali Mehdi alerted us a few hours ago of the following:

1. Minister Aleem Khan has contracted COVID-19 and is unavailable for at least 2-3 weeks.
2. Two other Ministers, Aslam Iqbal (Industries) and Jahanian Shah (Agriculture) also have COVID-19 and as such a great deal of work has come to a halt.
3. Either we can conduct the Final Workshop with Dr. Shah alone in the chair or as you and team recommend.
4. This week can still happen and depends on Dr. Shah’s availability.
5. Due to COVID-19, and the latest affected, the Final Workshop seems likely to be a Zoom meeting now.”

## **WORKSHOP**

Relevant action item:

- 10) Conduct a workshop with the dairy industry stakeholders and with the government during which the final design of the program would be agreed upon and approved by the dairy industry and by the government.

## **22 October Message from Special Monitoring Unit Social Services to Ali Mehdi**

Excerpt from the message:

“Trust you have received the invite via WhatsApp... Looking forward for a productive meeting where we could finalize and eventually launch the School Milk Program in Punjab.

Kindly do note that Dr. Salman Shah has conveyed his eagerness as well since this meeting has been long overdue. Hopefully your team would be ready with the presentation by working on all the recommendations proposed by Dr. Salman Shah.

Again sharing the meeting notice and minutes of the last meeting for your reference.”

The 22 October meeting invitation from the Special Monitoring Unit, Chief Minister’s Office can be found in Appendix P.

## **28 October Final Joint Workshop**

Agenda: Final consultancy workshop with key stakeholders to present and discuss the status of the GCNF proposal for a pilot School Milk Program in Southern Punjab Province and stakeholder positions vis-a-vis their potential involvement

Presentation: Appendix O

Attendees:

Government of Punjab:

- Dr. Salman Shah, Advisor to The Chief Minister Punjab Economic Affairs, Planning & Development
- Sumaira Samad, Secretary Literacy & Non-Formal Basic Education
- Capt. Saqib Zafar, Secretary Livestock
- Dr. Faisal Zahoor, Special Secretary Schools (Planning)
- Dr. Muhammad Nasir, Planning & Development Board Chief of Education
- Qaiser Rasheed, Additional Secretary Schools Education
- Dr. Fareeha Irfan, Director (PSPU) Health Department
- Rao Aneeq, Special Monitoring Unit Chief Minister Punjab's Office (Host)

PDA/Industry Stakeholders:

- Ali Ahmed Khan, Chairman
- Saud Pasha, FrieslandCampina
- Hussain Raza and Ammar Mursalin, Tetra Pak

World Food Programme:

- Mahamadou Tanimoune, Strategic Objective Manager
- Tahir Nawaz, Head of Education & Social Protection
- Sanam Mallah, School Feeding Focal Person

IFC:

- Ernest Bethe, Regional Lead, MAS Advisory projects in Indonesia, Mongolia and South Asia
- Oksana Varodi, Senior Operations Officer, ECA & EMENA Regional Lead MAS Advisory Services
- Muddassir Shafique, Program Manager, MAS Advisory Services, Pakistan
- Saad Bin Khaleeq, Information Technology Consultant, MAS Advisory Services

GCNF:

- Arlene Mitchell
- Memosh Khawaja
- Kashif Hussain Bhatti
- Ali Mehdi

Key points/Discussion

- The GCNF team presented a summary of the changes to the program design, highlighting the changes proposed by the Government of Punjab in the 07 September meeting and thereafter, and recommending the following in response to specific suggestions made in the earlier meeting:
  - Regarding the request to consider scaling the program to be province-wide, GCNF recommended limiting the program to the poorest districts in South Punjab, to target to the areas of greatest needs and to make the program more affordable.
  - To ensure the milk supply, GCNF recommended that the Government negotiate a supply agreement with the dairy industry.
  - To enlist needed expertise and reduce implementation costs, GCNF recommended that the Government consider enlisting the assistance of the World Food Programme, which has extensive experience with implementing school feeding programs.
  - To gain the funding needed to implement the program, GCNF recommended that the Government include School Milk Program in the next Annual Development Plan and approach international donors to assist with funding. GCNF shared a list of potential donors prepared for this purpose.
- The PDA Chairman explained that the price of the program is a moving target, given the financial pressures the industry is experiencing. He also expressed concern that processors would have difficulty accessing adequate supply of milk if required to buy within the target districts. He cited the high price of sourcing milk from farmers and current difficulties the industry is encountering in obtaining adequate supplies.
- The Secretary of Non-Formal Education sought clarification regarding the extent to which financing for the program was covered. GCNF explained the significant cost reductions it could now propose, including reducing program implementation costs and the cost of the milk packs, compared to the costs previously reported to the Government.
- The Advisor to the Chief Minister asked about the financing proposal and the time required to kick off the program. GCNF explained the original proposal of equally-shared contributions coming from the three major stakeholders: Industry, Government, and an international donor. Given the contribution level achieved from industry, and because the program was not yet included in the Government budget, GCNF said, the bulk of the funding of a program to be implemented in the near term would need to come from external donors.
- The Advisor proposed that an international donor should lead the pilot while the Government would provide administrative support in order to implement the program at the earliest. He indicated that taking the program through the Government approval process would be a very long process.
- The GCNF Executive Director concluded the workshop by thanking all participants and clarifying that the consultancy with IFC would end soon. She said any potential external donor will look for evidence that the Government of Punjab supports the program. She said that the children of Pakistan need support, and she hopes that they will get the much-needed nutrition through a Government-initiated program.

**05 November – Excerpt from Emailed Communication to Ali Mehdi from Mr. Rao Aneeq, Special Monitoring Unit:**

“...we would like to understand the way forward, if any, as a follow up to the final meeting on Wednesday 3pm, October 28th 2020. Kindly clarify if GCNF has anything further to contribute to this Pilot, as it was highlighted by your Executive Director of having no more support from IFC, and if so, who will take ownership going forward.

Also, we would like all the project designs and relevant documents to be shared with us for future project designs and implementation.

**06 November – Excerpt from Emailed Communication to Ali Mehdi from Mr. Rao Aneeq, Special Monitoring Unit**

“...Just wanted to share a new initiative by the School Education Department, Punjab where they have collaborated with Allah Wallay Trust for the provision of free meal to primary school children, initially covering around 100 schools. Here is the link for the launch: <https://twitter.com/DrMuradPTI/status/1323909476487958528>

We feel that GCNF could learn from this Program which is already launched with minimal deliberations / consultations, and that too with the support of a local donor. The Government of Punjab is actively seeking such initiatives. Our interest in your proposed SMP Pilot is in line with our socio economic welfare and child nutrition priorities for the province of Punjab.”

**07 November – GCNF Response to Mr. Rao Aneeq, Special Monitoring Unit**

“Dear Mr. Aneeq,

GCNF extends its gratitude to the Government of Punjab in its support and interest in the IFC-GCNF SMP Pilot for Punjab.

As per the queries raised in your email, similar to the ones raised by Dr. Salman Shah, please note;

1. The proposed Pilot’s design and workshops were to be completed October 31, 2020 as per the IFC guidelines / mandate to GCNF, which the latter completed and shared.
2. The proposed Pilot requires Government and Donor support; and one or both will have ownership going forward.
3. GCNF will forward you the design elements and documents as requested once the final report is submitted to IFC.

GCNF will continue to keep above thoughts in its perspective and if any potential donors emerge, we would get in touch.”

## CONSULTANCY BUDGET OVERVIEW

The original budget for the consultancy can be found in Appendix A.

As noted in previous sections of this document, the pandemic required GCNF and IFC to reconsider and agree on changes in planned activities and scheduling. GCNF requested, and IFC approved the following modifications:

1. To change the payout periods for the consultancy to allow for an upfront payment of 10 percent of the overall contract.
2. Extension of the consultancy period by an additional month.
3. To reprogram the funds involving travel, meetings, in-person workshop-related costs, and legal fees to cover additional GCNF staff and consultant costs.

In addition to the reprogrammed funding, the changes—particularly the cancellation of the planned research and public relations activities—resulted in overall budgetary savings totaling about USD 13,000.

## CONCLUSION AND RECOMMENDATIONS

As reported in considerable detail in this document, this consultancy produced the design for a pilot School Milk Program that was well-received by all of the key stakeholders, despite three significant obstacles.

- The coronavirus, which was just entering the world stage in November 2019 when IFC announced the consultancy and called for Expressions of Interest, had caused a full-blown pandemic by the time the consultancy contract was awarded. It caused school closures and uncertainty about their reopening as well as illness and absences in key Government offices. The pandemic required GCNF to cancel all travel planned and otherwise changed how GCNF and all stakeholders could conduct meetings and workshops. It also forced GCNF to cancel planned in-person research work. In short, while it significantly changed the context of the work, it did not stop GCNF from completing nearly all aspects originally requested by IFC.
- The lack of a known or likely source of funding for the pilot program was a significant impediment as well. Despite their enthusiasm for the program design; the lower per-pack milk costs and reduction of management costs that GCNF was able to negotiate; and the national and provincial Governments’ clear recognition of the need for such a program, each stakeholder in turn asked how the program would be funded. GCNF’s position throughout was, and remains, that to be sustainable, a program requires support from the local or national government from the very outset, as well as a good design, and an identified and competent implementation team. GCNF therefore concentrated its efforts on



the design and interactions with the key stakeholders in preparation for the Government to approach potential donors; this did not satisfy the stakeholders, however, as was made clear in the final workshop.

- Staffing changes in the ranks of key stakeholders particularly affected the later stages of the consultancy. The Chairmanship of the PDA changed hands during the consultancy. The lead World Bank contact identified had not yet taken up residence in Pakistan when IFC arranged the first meeting with him to discuss the program. He was quite positive in that discussion; he was on leave at another point when GCNF requested a meeting; the team did not succeed in meeting with him a second time before the consultancy ended. The World Food Programme had indicated quite positive interest in the pilot program in early discussions with GCNF and was deemed by GCNF to be a strong candidate to assist with the implementation of the pilot program. On 09 October GCNF met with the WFP team to brief them in preparation for the final workshop, and learned that two international staff had been newly reassigned to the WFP Pakistan Office and that they felt they needed a bit of time to become familiar with Pakistan and with how the pilot School Milk Program might fit with the WFP portfolio and priorities. There were changes in Government offices during the consultancy period as well, affecting the Ministry of Agriculture at the national level, for example, and Livestock at the provincial level.

While these challenges were impactful, GCNF completed nearly all of the original requirements of the consultancy, as summarized below and reviewed and agreed between GCNF and IFC on 18 November.

1. Prepare a presentation outlining possible SMP models, including funding mechanisms, based on successfully implemented examples from other countries: **Completed.**
2. Analyze and evaluate the models proposed by the local industry stakeholders: **Completed.**
3. a) Present SMP models, which have been successfully implemented in other countries: **Completed.**  
b) Discuss the design of proposed SMPs for Pakistan with dairy industry representatives and with the government at a workshop to be organized by IFC: **Completed.**
4. Hold follow-up meetings with UHT milk industry stakeholders (including the Pakistan Dairy Association, Friesland Campina, Nestle and Tetra Pak) and with the government in order to develop the detailed design of a model for a school milk program with a credible milk quality assurance system and with a credible system for ensuring that the milk would be provided to and consumed by schoolchildren on a daily basis: **Completed.**
5. Work with the relevant government institutions and with the industry in order to identify the regions, the schools, the required financing sources, the participants, and their roles and responsibilities for implementing the proposed pilot SMP: **Completed.**
6. Collect qualitative feedback from the parents, teachers and community leaders on the SMP: **Not completed, primarily due to the COVID-19 pandemic. Savings accounted for.** ...and develop the criteria on what data should be collected to monitor the overall progress of the SMP, including its impact on enrollment, drop-out rates and the health parameters of the children taking part in the pilot SMP: **Completed.**

7. Collect and analyze information about Friesland Campina's and Nestle's milk supply chains in order to develop criteria and methodology for monitoring the program's impact on smallholder farmers' incomes and livelihoods: **Completed.**
8. Prepare a detailed description of the required infrastructure (including the regulatory and the legal infrastructure) and the capacity for the implementation of the School Milk Program: **Completed.**
9. Develop a detailed implementation plan for the pilot SMP, including the M&E framework for documenting and measuring the program's impact and for collecting the data required to validate the program benefit along the value chain: **Completed.**
10. Conduct a workshop with the dairy industry stakeholders and with the government: **Completed...** during which the final design of the program would be agreed upon and approved by the dairy industry and by the government: **Basic agreement achieved on the design; program financing not yet available.**

GCNF leaves this consultancy convinced of the value of the proposed School Milk Program, and recommends that IFC consider taking the following actions to build on the investments made to date:

1. Renew the dialogue with Lire Ersado and other World Bank colleagues, regarding potential collaboration, particularly as discussed on 24 July.
2. Confirm the support of the Pakistan Dairy Association, FrieslandCampina, and Tetra Pak for the program, and if they are as supportive as they have previously indicated to GCNF, encourage them to invite the same Government players, especially Dr. Salman Shah and Capt. Saqib Zafar, Secretary Livestock to pursue the funding needed for the program.
3. Consult the World Food Programme's Pakistan staff early next year to assess their appetite for continuing the dialogue with the Government and the most enthusiastic of the industry stakeholders.
4. Monitor national and provincial developments over the coming months as relate to resources and programs for addressing nutrition, the livestock and dairy industry, and primary education, remaining alert to potential funding options, champions, and other resources for supporting the proposed School Milk Program.