



International Approaches to School Feeding: Country Experiences from Mali, Chile, and India

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Introduction

I want my child to be able to read a letter and understand it. If my children are able to go to school, then in the future they will be more awake than their parents.

-Mrs. Tembely, mother of five. Dandoli, Mali

School feeding programs have been proven not only to alleviate childhood hunger, but also to promote educational opportunities for children, especially young girls. Since education dramatically increases earning potential, education can bring hope to families with limited options. The ways in which school feeding programs operate varies widely among countries, for each program is designed to meet local needs. This paper explores methods, frameworks, strengths and challenges of school feeding in three countries—Mali, Chile, and India. The programs highlighted were selected not only for their geographic diversity, but also for the types of programs they represent. These three country experiences draw from interviews and site visits conducted in 2008 and 2009, along with secondary resources. The country experiences draw on four major themes—opportunity, community commitment, innovation, and political will. While there is no single model that can be replicated around the world, these country experiences can serve as valuable lessons from which others can learn.

The country experience study of Mali focuses on the themes of community commitment to school feeding as well as political will. While the Malian government and international partners play vital roles in coordinating and providing staples for food assisted-education programs, the programs' success in Mali would not be possible without community commitment. It is community members who must offer their time and labor, preparing meals each day and providing such complimentary inputs as vegetables, edible leaves, spices, protein sources, water, and firewood to the schools' kitchens. Since 2007, the Government of Mali has begun to work on plans that would implement government operated school feeding programs. The Ministry of Education and partnering agencies have drafted a national policy that includes a five year plan to launch 3000 government-assisted school canteens. While the proposed national policy has not yet been passed, it is representative of Mali's increased political will for school feeding.

The country experience study of Chile focuses on political will, equality of opportunity, and innovation. The program in Chile is often lauded as one of the best examples in the world of government commitment to school feeding. The Government of Chile has operated a school feeding program for over forty years, run by the National Board of School Assistance and Scholarships (La Junta Nacional de Auxilio Escolar y Becas), or JUNAEB. The school feeding program in Chile is part of the larger goal of ensuring that all students have equal opportunities to succeed in Chile's education system. The implementation of Chile's program is innovative both in the structure of the public-private partnership itself and it's internationally renowned system for analyzing bids, and also the innovative technology used by some school food service providers to produce massive quantities of foods in a centralized kitchen, which is then distributed to schools in ready to heat bags.

The country experience study of India focuses school feeding as part of Indians' Constitutional Right to Food, which is a form of political will that is quite distinct from either Mali or Chile. As part of a case brought to the Supreme Court in 2001, Indians' Constitutional Right to Food was recognized, and the government was mandated to take action to ensure this right is respected, protected, and fulfilled. As part of this case, the Supreme Court ordered the

Government of India to provide a cooked midday meal to all students in government and government-assisted schools. Since it is a Constitutional right, the program is in the process of becoming universal and students who are being denied this right may take legal recourse. In addition to the Right to Food, the study also highlights innovative technology of Akshaya Patra, an Indian non-profit working in a strong public-private partnership who has specially designed kitchens to produce massive quantities of food in a short period of time.



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I. School Feeding in Mali: A State of Transition



Introduction

School feeding in Mali is in a state of transition. The program has been operated as a partnership between the Government of Mali, which selects schools to participate, and international organizations, which fund and co-administer programs. In each region of the country, the regional offices of the Ministry of Education—called Centers of Educational Support (Centres d’Animation Pédagogique), or CAP—address issues related to food quantity and program integrity. The CAPs maintain school attendance records, track the number of girls eligible for take-home rations, and coordinate with community leaders. International organizations, namely the World Food Program and Catholic Relief Services, provide food and technical assistance that supports the work of community members, whose ingenuity, labor and material contributions are at the core of the programs. The Government of Mali is currently making efforts to support community-based school feeding programs through a National Policy on School Feeding that would support community-based efforts to begin programs.

During the 2007-2008 school year, the World Food Program’s (WFP) School Feeding Campaign provided cereal, pulses, and oil to 712 schools, which used them to serve a hot noontime meal to 108,524 children. The WFP school meals consist of 150 grams of cereals, 30 grams of dried vegetables, and 10 grams of oil for a total of 729 kilocalories. Additionally, WFP distributes take-home rations to around 9000 girls in targeted schools who have maintained at least 80 percent school attendance. Take-home rations consist of 4 liters of oil every three months.¹ Along with Catholic Relief Services (CRS), these programs reached 7 percent of the nation’s school aged children.² WFP selects regions of focus based on rates of food insecurity, and are currently focusing their efforts in the regions of Mopti, Timbuktu, Gao, and Kidal, as well as the northern regions of Kayes and Koulikoro. These programs have had considerable success in increasing school attendance. Even so, school feeding in Mali is insufficient compared to the

¹ World Food Programme. Draft Country Programme—Mali 10583.0 (2008-2012). 27 April 2007. Originally in French. English version.

² Lambers, William. “Interview: Abou Guindo of the UN World Food Programme in Mali.” *Ending World Hunger*. Blogcritics Magazine. November 7, 2008. Accessed at <http://blogcritics.org/archives/2008/11/07/082510.php> on February 17, 2009.

need and address just one of the many challenges facing primary and secondary education in the nation.

Community Commitment

If you see a lion and you yell, come on everyone, let's go kill the lion, you have to be the one to run out first and grab the head, and then everyone will come with their knives and kill it. But if you run out there and you grab the tail, no one else will grab the head. Face the problem head on and then people will come and help you, but if you just shout, it is not likely to happen.

-Malian Proverb, as told by community member in Sana, Mali

Everybody contributes, even if you don't have kids in school. Even if you don't have kids in school, your brothers have kids in school or your sisters have kids in school. It's one big family. Even for families who have children and do not send their kids to school, they still see it as a village problem and they still contribute.

-Jean Paul, Caritas. Mopti, Mali

While the Malian government and international partners play vital roles in coordinating and providing staples for food assisted education programs, the programs' success in Mali would not be possible without community commitment. It is community members who must offer their time and labor, preparing meals each day and providing such complimentary inputs as vegetables, edible leaves, spices, protein sources, water, and firewood to the schools' kitchens. In some villages, families contribute to the canteen based on the number of children they have in school; in others, everyone contributes, regardless of whether they have children in school. In many villages, the Parents of Students Association manages the donations, makes up for gaps in the food supply, and maintains the cooking facility. Some communities, such as the village of Sana in the Koro region of Mali, even began school feeding programs on their own and were then supported by international organizations.

For many years, the village of Sana had no school. As a result, virtually everyone above the age of 15 is illiterate. In 1997, the chief of the village started a school and went from house to house talking with families about the importance of sending their children to school. Just as community members recognized the need for education, they also realized that many students did not have the means to eat during the day. In 2004, after seeing a school feeding program in a neighboring village, a village leader suggested that the school start a canteen (a term used to describe school feeding programs in Mali; *cantine scolaire* in French) to provide free school meals. He worked with UNICEF to provide utensils, bowls, and cooking supplies and organized community members to provide millet to the canteen. Each family in the community—regardless of whether they had children in school—donated 3 bowls of millet to start the program (this has since increased to 5 bowls a harvest). Women in the community organized themselves to cook on a rotating basis. The cooks and school children collected water each day, and the youth of the village gathered the firewood. Through this community initiative and efforts, a meal of boiled millet was served to the children in the school three days a week.



Sana community member holds bowl of millet to donate to the school canteen.

McGovern-Dole Food For Education

Q: Have there been any changes in the school feeding program since the time that the McGovern-Dole Food for Education program started?

There is a big, big difference between the indigenous canteen and the canteen of Catholic Relief Services. In the previous canteen they just ate millet. There was no oil. Sometimes they made toh with sauce. Now they are able to eat rice, beans, oil. All these things that are good for you and have vitamins. We have been eating millet all our lives. Now we have the chance to eat something else.

- Harouna, Primary school teacher in Sana

If someone wants to climb a tree, you push him up; if he doesn't want to climb the tree, when you push him he will fall down. When you get some help up, you have to grab onto the branches and keep going up yourself.

-Malian Proverb, as told by Jean Baptiste Togo, Caritas Mali

Since 2008, the village of Sana has received support from the United States Department of Agriculture's McGovern-Dole Food For Education Program, which "provides for donations of U.S. agricultural products, as well as financial and technical assistance, for school feeding and maternal and child nutrition projects in low-income countries."³ Because McGovern-Dole provides the staple grain, beans, and oil, the community now contributes sauce ingredients (salt, peanut paste, sometimes meat). And rather than eating three days a week at school, as they did before the McGovern-Dole program started, the children eat five days a week.

McGovern-Dole funding is being used in innovative ways in Mali to not only feed children in schools, but also to help increase family incomes. Catholic Relief Services in Mali has recently begun using McGovern-Dole Food For Education funding to facilitate the establishment of Savings and Internal Lending Communities (SILC), which serve as both banks and microcredit opportunities. Women within the group each contribute a certain amount each week. That money is recorded under their "account," like putting money in the bank. When a woman within the group has a need, she makes an appeal to the group, who decide if she will be granted a loan.

³ "McGovern Dole Food For Education." United States Department of Agriculture Foreign Agriculture Service website. Accessed on June 24, 2009 at <http://www.fas.usda.gov/excredits/FoodAid/FFE/FFE.asp>.

When the women pay these low interest loans back, it makes more capital available for others to borrow and all the members gain a percentage of the interest paid.

These SILC groups enable rural women to save collectively and provide each other with opportunities to start small enterprises—often used for purchasing agricultural inputs. Since the interest and money paid by the borrowers goes back into the funds available for credit, their loan repayments benefit the entire group. SILC groups also provide women with an economic safety net of interest free loans in case of health or family emergencies.

In the village of Dandoli, Mali, women in the SILC program use small loans to buy onion seeds, which they plant, grow, and sell in the nearby city of Bandiagara. Not only does this enable them to increase their incomes, but, as one of the SILC members explained, since the interest goes back into the program the money they pay back on their loans benefits the community: “The SILC program has really helped us. Before the SILC program we had to go to Bandiagara to get credit. The interest was very high and that interest just went back to the bank. Now we pay the interest and it comes back to the community.”

Studies show that an increase in resources controlled by women resulted in a greater proportion of household income spent on food, health and school-related expenses.^{4,5} By helping women to organize themselves to save, give out credit, and invest in micro-enterprise, the SILC program supports women and families in affording the costs associated with school, and provides them with the support system necessary to keep their children in school should they experience economic hardship.

Educational and Economic Opportunity

Q: Did more children start to come to school after the school meal program started?

The school meal program has changed the school dramatically. Before, there were some students who would come for the morning, but leave for lunch and not come back. Some students just would not come at all because they could not eat. The number of students has definitely increased. They used to leave at recess, at the 10 am break, so they were only staying for a few hours.

- Harouna, Primary school teacher in Sana, Mali

Q: Why do you send your children to school?

If you want to sit in the shade of a tree tomorrow, you have to water it today

-Malian proverb, as told by a mother in Sana, Mali

Both anecdotal evidence and school attendance data indicate that rates of enrollment and attendance in Mali have grown more significantly in schools with canteens than those without. While enrollment in public and community schools rose 5.9 percent between 2006 and 2007, enrollment in WFP-assisted schools rose 20 percent during the same period, with enrollment for girls increasing 23 percent. Of the children enrolled in school, attendance rates for 2007 were

⁴ Quisumbing, A.R and J.A. Maluccio. 2000. *Intrahousehold allocation and gender relations: New empirical evidence from four developing countries*. Food Consumption and Nutrition Division Discussion Paper. No. 84. Washington, DC: International Food Policy Research Institute.

⁵ Hallman, K. 2000. *Mother-father resource control, marriage payments, and girl-boy health in rural Bangladesh*. Food Consumption and Nutrition Division Discussion Paper 93. Washington, D.C.: International Food Policy Research Institute.

above 90 percent for both boys and girls in schools with canteens.⁶ Getting students to come to school and be able to stay for the duration of the school day is an important step toward improving educational opportunity for Mali's children.

Not only do school feeding programs provide opportunities for students, but they also have the potential to provide farmers and the local industry with a reliable market. The World Food Program in Mali has been selected as one of the pilot countries in Africa to receive Purchase for Progress (P4P) funding. P4P is a local procurement program of the World Food Program made possible by funding from the Bill and Melinda Gates Foundation and the Howard G. Buffett Foundation. P4P provides farmers with a reliable market and fair price for their crops while providing locally produced, culturally appropriate food to those in need. WFP in Mali is working with farmers' cooperatives to encourage small scale farmers to be involved in the program and offers agricultural development assistance to help farmers improve their practices.

Political Will

The Ministry of Education of Mali, has made a commitment to ensure that "hunger is no longer a barrier to the education of a child in Mali."⁷ Following their participation in the 2007 Global Child Nutrition Forum and with support from the World Bank, representatives from the Malian Ministry of Education and WFP hosted a National Forum on School Feeding in Mali in January 2008. Working in collaboration with the Ministries of Agriculture, Health, Social Development, Promotion of Women, Children and Families, the Food Security Commission, WFP, and CRS, the Ministry of Education drafted a national policy for school feeding that is currently awaiting a final vote to be institutionalized as an official policy.

The proposed national policy includes a five year plan to launch 3000 government assisted school canteens. Under this plan, the Government of Mali will cover 90 percent of the associated costs for school canteen during the first year, with this percentage decreasing each year as schools and communities become increasingly able to maintain and operate programs.⁸ The Government of Mali has committed four billion CFA franc (approximately US\$8 million) for school canteens in 2009 using a combination of funds from the National Budget and funds from donor countries.⁹ The plan includes provisions that support local purchase of commodities in order to augment the incomes of smallholder farmers. While still in its infancy, the Government of Mali's plan demonstrates the political will to enhance the valuable work already undertaken by its international partners.

The National Policy for School Feeding in Mali supports the larger goal of the Ministry of Education to increase school enrollment and attendance among the school aged children still not in school. As Mr. Adama Moussa Traore, the Associated National Director of Basic Education explained, school meals will help to draw students to school who are most difficult to enroll: "This last percentage is the most difficult because they come from families and backgrounds that are reluctant to send children to school, or children have to work, or they are from nomadic

⁶ National Policy for School Feeding in Mali. Ministry of Basic Education, Republic of Mali. May 4, 2008. Page 8.

⁷ National Policy for School Feeding in Mali. Ministry of Basic Education, Republic of Mali. May 4, 2008. Page 13.

⁸ Experimental Program of Integrated Canteens. Ministry of Basic Education, Republic of Mali. May 12, 2008.

⁹ Adama Moussa Traore, Associated National Director of Basic Education and Dr. Bonaventure Maiga, the Technical Advisor for the Ministry of National Education. Personal Interview. December 10, 2008.

families. Those last children who are currently not attending school surely won't go to school if they don't get a meal there."¹⁰ WFP is working to support the transition to a government run program as part of WFP's eventual withdrawal.

Challenges

Malian children are among the poorest in the world. In 2001, 239 children per 1,000 died before reaching age five; 83% of children had anemia. Those children who make it to school are confronted with a system ill suited to their needs. There are not enough chairs, books, pencils or teachers, let alone more modern teaching materials. For most children, instruction is given in a language they scarcely understand. Not surprisingly, a very high percentage of children in the Malian school system fail. Repetition rates averaged 19% per year in 2002. The pass rate for the sixth grade primary school exam is about 50%; sixth grade students are frequently incapable of decoding even a single sentence in their textbooks.¹¹

-World Bank, 2007

Q: What other things does the school need?

We have need for water. We don't have water. That's the number one problem in the school. We also need school materials and books that the kids can read. Also, a pharmacy or first aid kit at the school is very important. Often kids have a headache and are just a little bit sick. If we could give them Tylenol or some other forms of first aid to make them feel a little bit better, they could stay at school which would be better than having them go home sick.

- Harouna, Primary school teacher in Sana, Mali

Despite school feeding's success in increasing school enrollment and attendance in Mali, the country's education system continues to face major challenges. First, it must be noted that the vast majority of school-aged children—93 percent—are currently not receiving school meals, and thus the benefits of school feeding are limited to a small portion of Malian children. Furthermore, as evidenced by the accounts above, schools in Mali face enormous challenges beyond school meals. Many schools lack access to water, which is a barrier not only to starting a school feeding program, but also to basic sanitation and hydration in the often extreme heat. Many schools lack latrines or even adequate classroom space. A vast majority of schools are in need of school materials—books, pencils, chalk, desks. Mali is experiencing a severe teacher shortage, and teachers who leave mid-year are sometimes not replaced, leaving classrooms without teachers for months. The lack of teachers was actually fueled by World Bank interventions in the 1980s and 1990s. As Penelope Bender et al wrote in a 2007 World Bank evaluation of its assistance to primary education in Mali, World Bank programs that placed additional requirements on teachers had a devastating impact on the number of teachers in the country, an impact which is still felt today:

The conditionalities these [World Bank] programs contained still affect the education sector and are still negatively perceived by Malians. One of the most disliked measures was the voluntary departure program, through which about 1,000 teachers left the sector, representing about 12.5% of the teaching force...In the early 1990s, the Bank pressed the Government of Mali to limit access to teacher education to high school graduates, but the reluctance of graduates to enter teaching resulted in the near closure of the teacher education program. The GoM recruited contract teachers with little pre-service teacher education and

¹⁰ Adama Moussa Traore, Associated National Director of Basic Education and Dr. Bonaventure Maiga, the Technical Advisor for the Ministry of National Education. Personal Interview. December 10, 2008.

¹¹ Bender, Penelope et al. "Evaluation of the World Bank Assistance to Primary Education in Mali." The World Bank. Washington, DC: 2007.

struggled without Bank support to provide them with short-term training. This decreased salary expenditures, but had a major negative impact on educational quality.¹²

While access to primary education has increased considerably over the past decade, many students still do not have access to school. A large number of villages do not have even a primary school within walking distance, and even fewer have a secondary school, requiring students to board in areas outside their home, which is often prohibitively expensive. These conditions have contributed to Mali's low school completion rate that, while more than double the 1997 rate, was just 53.2 percent nationwide for the 2006-2007 school year, and only 35.6 percent among rural populations.¹³ These rates are even lower among girls and among children in rural areas. Similar gaps in school attendance growth exist among regions of the country. For example, the gross enrollment rate increased 127.3 percent in the Bamako region, while only 41.9 percent in Kidal. The significant increases in school attendance in the Bamako region mask the much slower increases in the more rural Kidal region when looking at nationwide school attendance statistics. Enrollment rates remain lowest in the most food-insecure regions, where the dropout rate is also highest.¹⁴

Conclusion

School feeding programs have made a dramatic impact on the communities in Mali they have touched. However, the programs are far from reaching all students in need and are only addressing one of many challenges facing education in the country. The Government of Mali is making a concerted effort not only to expand school feeding programs, but also to address other challenges facing the education system. While still in its infancy, the political commitment made by the Government of Mali is encouraging. If the work goes according to plans, school feeding will expand exponentially through the government initiative, enabling more children to attend school regularly and have access to increased opportunities that come with literacy and math skills. As a mother and the head cook of the school canteen in Sana explained, "We did not go to school and we see that the world is changing. This new world is a world of knowledge, and if you have knowledge the doors of opportunity will be opened to you."

¹² Bender, Penelope et al. "Evaluation of the World Bank Assistance to Primary Education in Mali." The World Bank. Washington, DC: 2007. Page 14.

¹³ National Policy for School Feeding in Mali. Ministry of Basic Education, Republic of Mali. May 4, 2008. Page 7.

¹⁴ "School Feeding in Mali." Country Presentation from the Global Child Nutrition Foundation Forum. July 14, 2007. Chicago, Illinois.

II. Political Will, Equality of Opportunity, and Innovation: Foundations of the Success of the School Feeding Program in Chile



Introduction

Child nutrition programs in Chile, which are administered by the government and implemented by private contractors, are among the most renowned in the world.¹⁵ Serving over 2.2 million meals a day to 1.8 million school aged students in 9,800 schools across the country, Chile's child nutrition programs have played a major role in improving the nutrition of the nation's children and increasing Chile's school participation rate to nearly 100 percent, while dramatically reducing incidences of malnutrition^{16, 17} In addition to nutrition programs for school aged children, the government of Chile provides specially designed nutrition programs for infants and toddlers in the nation's 3,340 government run free child care centers.¹⁸ Strong and consistent government support as well as innovative public-private partnerships have been driving forces in the programs' success.

School Feeding in Chile: A History of Political Will

Q: There are many countries in the world where school feeding programs are nonexistent. Why do you think that in Chile it is a priority?

I will give you a personal opinion. I think we, the Chileans, look at ourselves as a non-developed country, with lots of vigor to improve and become a developed country. We realized education is the base of everything. So by having students with better nutrition, we will assure that students perform better. That is why the school feeding program is so central to us.

-Ramón Solís Cácares—Chief of the School Feeding Department, JUNAEB¹⁹

¹⁵ Among its honors, the school feeding program in Chile was recognized by the United Nations World Food Program as one of the top five in the world. Source: "JUNAEB Background." Gobierno de Chile JUNAEB website. Accessed in Google translation at http://74.125.91.132/translate_c?hl=en&ie=UTF-8&sl=es&tl=en&u=http://www.junaeb.cl/mundo/resena_historica.htm&rurl=translate.google.com&usg=ALkJrhiIdFIX7FcLbMYz2IM1n0c_vVRgw on May 15, 2009.

¹⁶ Sources: "Balance Internal Management: Year 2007." *National Board of School Assistance and Scholarships*. Santiago, Chile.

¹⁷ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

¹⁸ Figure as of the end of 2008. "¿Qué Es La JUNJI?" JUNJI publication.

¹⁹ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

Consistent government support has been one of the main drivers of success for child nutrition and school support programs in Chile. Since the government of Chile passed compulsory education in 1920, the government has established institutions and initiatives to ensure that all students have the tools they needed to succeed within these schools.²⁰ Beginning with the Directorate of Primary Education and the School Boards of Communal Assistance, established in the late 1920s to support the “promotion and organization of school food services and other aid to students in public schools,” the government of Chile has administered school feeding programs as one of the primary forces to reduce inequality in the school system.²¹ In 1953, the government established the National Board of School Aid, JUNAE, to support students in primary schools throughout Chile. In 1964, the government passed Chilean Law No. 15720, which strengthened the work of JUNAE through adding school scholarships for vulnerable children and families. The National Board of School Assistance and Scholarships (La Junta Nacional de Auxilio Escolar y Becas), or JUNAEB, which currently administers school feeding programs in Chile, was and continues to be mandated by this law.

Six years after the law was passed that created JUNAEB, in 1970, the Chilean government passed Law No. 17301, which created The National Board of Day Care and Kindergartens (La Junta Nacional de Jardines Infantiles), or JUNJI. Since that time, JUNJI centers have been created that offer free, government-run child care centers for eligible infants and toddlers whose parents opt to participate.

While the programs of both JUNAEB and JUNJI have changed and developed since their inception, because both were established through law and hold strong political clout, they have operated consistently since their inception. The programs have not only maintained, but have actually strengthened during times of radical political changes, serious economic crisis, and social instability. As Gerardo Weisstaub et al. wrote in their 2008 article “Child Malnutrition: Prevention and Control at the National Level,” “Any changes to the supplementary feeding programs have always been undertaken with extreme caution by governments, since they are reluctant to take risks on a matter of such high political sensitivity.”²² Child nutrition programs have been central issues in political campaigns, such as the 1970 Presidential election campaign, when all three candidates proposed “eradication of malnutrition” as one of the *key targets* of their administration. The victor in the election, Salvador Allende, from the Socialist party, was elected with the promise of providing half a liter of milk each day to all Chilean children up to age 15.²³

²⁰ “JUNAEB Background.” Gobierno de Chile JUNAEB website. Accessed in Google translation at http://74.125.91.132/translate_c?hl=en&ie=UTF-8&sl=es&tl=en&u=http://www.junaeb.cl/mundo/resena_historica.htm&rurl=translate.google.com&usg=ALkJrhiIIdFIX7FcLbMYz2IM1n0c_vVRgw on May 15, 2009.

²¹ “JUNAEB Background.” Gobierno de Chile JUNAEB website. Accessed in Google translation at http://74.125.91.132/translate_c?hl=en&ie=UTF-8&sl=es&tl=en&u=http://www.junaeb.cl/mundo/resena_historica.htm&rurl=translate.google.com&usg=ALkJrhiIIdFIX7FcLbMYz2IM1n0c_vVRgw on May 15, 2009.

²² Weisstaub, Gerardo et al. “Child Malnutrition: Prevention and Control at the National Level.” In *Nutrition in Pediatrics 4*. Edited by Christopher Duggan, John Watkins, and Allan Walker. 2008: 143-152.

²³ Weisstaub, Gerardo et al. “Child Malnutrition: Prevention and Control at the National Level.” In *Nutrition in Pediatrics 4*. Edited by Christopher Duggan, John Watkins, and Allan Walker. 2008: 143-152. Page 149.

A Mission of Equity in Education

Q: What effect has school feeding had on Chilean society?

Kids who could not go to school are now going to university. Practically all kids are going to school. Chile is a country where 99.9% of children go to school. If JUNAEB knows that there are children having a hard time going to school, they will give a scholarship to make sure kids can go. For example, if a family earns so little that they need their children to work, JUNAEB will pay the family to send their child.

-Ramón Solís Cácares—Chief of the School Feeding Department, JUNAEB²⁴

While both JUNAEB and JUNJI operate large-scale child nutrition programs, neither of their missions is focused on feeding children. Rather, their missions are focused on providing vulnerable children the tools they need to be successful in Chile's education system. JUNAEB's stated mission is "to facilitate the incorporation, retention, and success in the educational system of children and young people living in social, economic, or psychological disadvantage by delivering quality services that contribute to equality of opportunity in the educational process"²⁵

To carry out its mission, JUNAEB maintains a three pronged approach to assisting target students that focuses on the following areas: school meals, health, and scholarships. JUNAEB health services provide students with eyeglasses, dental care, hearing aids, and psychological counseling, thereby reducing barriers—such as dental pain or not being able to see clearly—to succeeding in the classroom.²⁶ Additionally, while there are no school fees for public schools in Chile, some families have difficulties meeting needs such as school supplies; JUNAEB runs a scholarship program at the primary and secondary levels to help meet needs associated with the cost of school. At the University level, JUNAEB offers scholarships including the "Presidente de la República (President of the Republic) scholarship, which is an amount of money the student gets every month for his or her education and living expenses. JUNAEB provides eligible university students with food voucher scholarships (20 a month, \$2 per voucher) that may be redeemed for lunch at participating restaurants on school days. JUNAEB's annual operating budget for these programs is \$640 million USD, including scholarships and health programming; \$430 million USD of those funds are designated for school meals for primary and secondary school students.²⁷

JUNJI's mission, which has a similar focus on equity, is "to provide early education to boys and girls under four years of age who live in a situation of vulnerability and guarantee them equal development opportunities through the creation, supervision, and certification of day care centers and preschools either directly or through third parties."²⁸ JUNJI child care centers with high quality supervision and instruction free of charge to eligible children all over the country. As part of its mission, JUNJI provides free meals at its centers and offers nutrition and health counseling programs for parents of young children.

JUNJI has expanded significantly since 2006 when President Michelle Bachelet took office and called for a rapid and wide-scale expansion of the programs to reach more families who may

²⁴ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

²⁵ "Balance Internal Management: Year 2007." *National Board of School Assistance and Scholarships*. Santiago, Chile.

²⁶ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

²⁷ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

²⁸ JUNJI History. www.junji.cl Accessed on June 20, 2009.

benefit from the services. In 2005 there were 708 JUNJI centers in the country. Between 2006 and 2007, Chile extended its day care coverage by 240%, building 1700 new child care centers in the country over the two years. By 2010, it is projected that 3,500 new public and free day care centers will have been built that will educate 70,000 vulnerable infants in the country's poorest 40% of families.²⁹ In addition to government run JUNJI centers, a private nonprofit offers the same service of free child care and school meals for infants and toddlers. Fundación Integra, an organization within the Network of Foundations of the Presidency of the Republic, was established in 1990 to further expand the reach of child care services. There are currently 1031 Fundación Integra centers in Chile that educate and feed 80,000 children.³⁰ In addition to expanding JUNJI programs, President Bachelet's administration has influenced the expansion of Fundación Integra. The strong political will exercised in her administration through these programs will greatly increase the impact of the infant nutrition and education program to reach the nation's most vulnerable children.

Determining Vulnerability: Targeting of students to participate in assistance programs

While the child nutrition programs of JUNAEB and JUNJI together reach over two million children a day, neither of the programs are universal, nor are they intended to be. Rather, food in the JUNAEB and JUNJI programs is considered "a benefit that allows vulnerable children to have equal opportunities in the education system."³¹ With a few exceptions, such as very rural schools where meals are provided for all students regardless of income, JUNAEB and JUNJI programs target vulnerable students to ensure they have equal opportunities. For JUNAEB, this targeting assessment determines participation in school meals, health, and scholarship programs; for JUNJI, the targeting assessment determines whether infants and toddlers are eligible to participate in the JUNJI centers at all.

Unlike the United States, where the burden for applying for government child nutrition programs falls on vulnerable families, Chile has developed a system to determine eligibility using data that the government already collects. This comprehensive analysis of the families' situation takes into account not only yearly or monthly income, but also stability or seasonality of income and level of education of the parents. This data is analyzed according to the National System of Allocation to Equity (SINA) using data from the Ministry of Planning (MIDEPLAN).

Public-Private Partnerships

At its inception, the school feeding programs in Chile were operated entirely by government agencies—JUNAEB and JUNJI—from administration, to the hiring and training of cooks, to the serving of meals. As the programs and institutions grew, a decision was made to begin to contract with private companies to provide school food service, with JUNAEB as the administering agency. In 1976, JUNAEB began a pilot program outsourcing some of its schools to private contractors. JUNAEB determined that these pilots were successful, and by 1980 all of the schools food service had been turned over to private companies. Most of the JUNAEB food preparation staff were hired by the private companies as they took over a school's food service.

²⁹ JUNJI History. www.junji.cl Accessed on June 20, 2009.

³⁰ "What is Integra?" Fundación Integra Website.

<http://www.integra.cl/integra.nsf/data/6232AE64B74F3F3E8425744200619A7F#>. Accessed on June 1, 2009.

³¹ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

Both the private sector implementing companies and JUNAEB maintain that since that time the government of Chile has maintained good public-private partnerships.^{32, 33}

On the public side of the partnership, JUNAEB and JUNJI set and control nutrition standards for their programs, including number of calories per meal, quantity of protein, quantity of fruits and vegetables, and requirements for variety. Based on these sets of criteria, private contractors submit proposals to service the school food for one of approximately ninety “Territorial Areas” or TUs. Each year JUNAEB accepts proposals to provide meals for 1/3 of the contracts in the country, so contracts are renewed or reallocated on a three year cycle. While JUNAEB and JUNJI are separate agencies, JUNAEB evaluates the bids for contracts for JUNJI to streamline the system. For each cycle, JUNAEB receives over 100,000 proposals (a single company will often write multiple proposals to service different areas).³⁴

Proposals are assessed based on a variety of factors in two major categories—quality and price. In the quality category, firms declare how they will satisfy JUNAEB’s requirements, including:

- Nutritional requirements for the different meals;
- Food structure for the various meals (breakfast, lunch, tea, and supper) and the frequency (or minimum and maximum presence) of certain foods, and the minimum variety required in the meals provided;
- Minimum quality characteristics of the inputs;
- Operating conditions, such as hygienic standards, supplies, food-handling practices, and supervision; and,
- Infrastructure, such as furniture, equipment, and cookery.³⁵

Each proposal includes a plan for quality assurance, including how they will control the everyday personnel and management quality. Firms that meet these quality criteria then enter the second round of assessment based on a series of prices vendors must supply for a variety of meals, such as 350 calorie breakfasts for primary school students and 1000 calorie lunches for secondary school students. Because JUNAEB manages the proposals for all three programs—JUNAEB, JUNJI, and INTEGRA—and because nutrition requirements of the children vary with age and special needs, vendors must submit bids for 30 meal types.

In addition to variety of meal types, vendors are asked to submit bids for varying numbers of meals (80-100% of estimated meals in bid, 60-80%, and less than 60%) since the number of students participating may change. If the number of meals is far under the estimated proposed, the price per meal may increase slightly. Conversely, if the number of meals is more than 100% of anticipated, a company may receive slightly less per meal. It is from these numbers that companies that meet all quality standards can be selected to win a bid. While JUNAEB seeks to provide the maximum number of high quality meals at the lowest cost, they set a minimum price per meal each year to eliminate unrealistically low bids that may have underestimated costs and could result in either poor quality food or the company going bankrupt.

³² Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

³³ Pablo Maturana. Co-owner of Santa Cecilia school food service company. Personal Interview. April 15, 2009.

³⁴ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

³⁵ Epstein, Rafael et al. “A Combinational Auction Improves School Meals in Chile.” *Interfaces*. November 1, 2002.

Once winning companies have been selected and begin to serve meals, they receive an agreed upon price *per meal* served. The government does not set prices for how much companies pay for food, nor do they set the price companies are paid per meal. Thus, the amount companies are paid per meal may vary from company to company and bid to bid. At the time of this study, April 2009, JUNAEB paid approximately \$1.13 per student per day for breakfast and lunch, with some variation by region and method of preparation. Since they are paid per meal served to an eligible student, school food service providers are responsible for providing JUNAEB with documentation of the number of meals served. In each school both a staff member from the private contractor and a designated teacher from the school record daily meal participation and ensure that the correct students receive meals. At the end of each month, JUNAEB pays the private contractors for the number of meals served in the previous month.

Combinational Auction: Computerized System for Proposal Evaluation

To ensure that the bid selection process is fair and cost effective, in 1997, then head of JUNAEB Lysette Henriquez requested that researchers at the Industrial Engineering Department of the University of Chile develop a system to improve the auction process. This team of researchers develop a combinational auction computerized system to evaluate school feeding proposals, a system JUNAEB began using in 1999. Whereas in a non-combinational auction, bidders bid on one item or one group of items with a single value, in a combinatorial auction, bidders can place bids on combinations of possibilities. In the case of JUNAEB's combinational auction, bidders are first filtered through based on meeting minimal quality criteria, and then their bids are assessed using the combinational auction system, which evaluates the bids on various food packages and quantities of food packages.

The JUNAEB combinatorial auction system is internationally renowned and was the recipient of the 2002 International Federation of Operational Research Societies Prize for Operational Research in Development, awarded to the best application of Operational Research in a developing country.³⁶ The combinational auction process is cited as being more transparent and less subject to bidders "exert[ing] inappropriate pressures on the officials administering the process."³⁷ In addition to being more transparent, the combinatorial auction system contributes to direct cost savings by more effectively analyzing costs of a complex set of bids. It is estimated that the computerized system of proposal assessment saves the government child nutrition programs in Chile US\$40 million yearly—equal to the cost of feeding 300,000 children for the year.³⁸

The call for bids is open to any company regardless of country of origin and all companies compete in the same way (there is no preference given to Chilean companies). According to Ramón Solís Cácares, Chief of the School Feeding Department, JUNAEB currently works with 37 private contractors that provide school food. While most of these are Chilean owned, two are international—Sodexo and the Compass Group—and two others are under Brazilian

³⁶ Catalán, Jaime et al. "No Such Thing As A Free Lunch? Think again. Combinatorial auctions help feed two million public school children from low-income families in Chile." *OR/MS Today*. The Institute for Operations Research and the Management Sciences. April 2009. 32-35.

³⁷ Epstein, Rafael et al. "A Combinational Auction Improves School Meals in Chile." *Interfaces*. November 1, 2002.

³⁸ Epstein, Rafael et al. "A Combinational Auction Improves School Meals in Chile." *Interfaces*. November 1, 2002.

ownership.³⁹ To ensure that prices remain competitive and stable in case one company is not able to meet its contracts, a single company cannot have contracts for more than 16% of JUNAEB's total capacity.⁴⁰

Cook & Chill: Innovative Technology of Centralized Kitchens

In 2006, President Michelle Bachelet Jeria, asked that the number of school meals increase from 1.6 million meals served a day to 6.6 million and that more child care facilities be opened. In order to increase the number of meals served dramatically in a short period of time, JUNAEB researchers assessed multiple options. After researching potential alternatives, JUNAEB decided to prepare food in central “Cook & Chill” kitchen facilities and have it delivered to the schools. “Cook & Chill” is a specially designed process for large scale preparation of meals in a central kitchen. Using rapid cooling technology, meals are sealed in plastic bags and shipped cold to schools in ready to heat bags. On site, the meals are reheated (mostly through boiling the bags) and served. At the time of this study, 400,000 meals were being prepared daily by the Cook & Chill process (as compared to 2 million meals that were prepared onsite by conventional methods). Cook & Chill is used mostly in schools with a large number of students and in an area of high population density. Because the cost for the start up equipment for these plants was large, JUNAEB agreed to pay a slightly higher rate for Cook & Chill meals than for on-site preparation. JUNAEB estimates that in 5 years companies will have earned back the money from their initial investment.⁴¹

Nutritional Successes and Challenges: From Malnourishment to Obesity

At the beginning, we were fighting malnutrition. Now that goal has been reached. Kids who could not go to school are now going to university. One of the major struggles in the world of school nutrition in Chile right now is combating childhood obesity. JUNAEB is being proactive to address these issues.

-Ramón Solís Cácares—Chief of the School Feeding Department, JUNAEB⁴²

While the primary goal of school feeding programs in Chile—to ensure equity for the nation's children by ensuring that all students have the tools they need to succeed in school—has remained consistent throughout the forty plus years the program has been operating, the secondary goals related to child nutrition have been adapting in relation to changing nutritional needs. At its inception, malnutrition was a serious issue facing the children of Chile, so school feeding focused on ensuring all Chilean children were properly nourished. Since that time, malnutrition has plummeted. Child nutrition programs have been overwhelmingly successful in this regard.

As malnutrition rates have fallen, rates of obesity have skyrocketed. As Juliana Kain, MPH et al wrote in their 1998 paper “Child Nutrition in Chile: From Deficit to Excess,” “Chile has undergone an epidemiological and nutritional transition. In children, there has been an important decline in the rates of nutritional deficit...with a corresponding increase in the prevalence of

³⁹ For a list of JUNAEB school food service providers, please visit <http://www.junaeb.cl/home/certificados.htm#>.

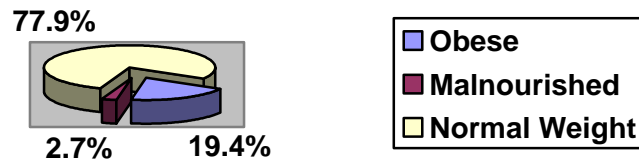
⁴⁰ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

⁴¹ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

⁴² Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

overweight and obesity.⁴³ In 1987, rates of obesity were 6.5% for boys and 7.8% for girls. By 2000, these numbers had increased to 17% for boys and 18.6% for girls, an increase of 161.5% and 138.5% respectively. In 2006, 19.4% of students in the country were obese, as compared to only 2.7% who were malnourished.⁴⁴

Rates of Obesity and Malnourishment among Chilean School Children: 2006



To address the rising wave of obesity, JUNAEB and JUNJI have established a high standard for nutritional requirements to ensure that companies provide an appropriate number of calories for children of that age, as well as a minimum quantity of fruits and vegetables each week. JUNJI offers nutrition interventions for children and their families when they enter the program, much of which is focused on healthy eating and preventing obesity.

While JUNAEB and JUNJI meals must meet a high standard of nutritional requirements, one of the major challenges facing school food service in Chile today is unhealthy competitive foods. Kiosks selling candy, cookies, chips, soda, ice cream, and hot dogs litter school yards both inside the school compound and lining the outside gates. After throwing out half full plates of food or even after completing an entire school meal, some students buy these “supplemental items.” This makes JUNAEB and JUNJI’s work on nutrition education and nutrition interventions with families an uphill battle. As Inés Roco Vargas, Chief of the Nutrition and Health Program for JUNJI explained, “Something that increases the problem is people selling candies, cookies outside of the JUNJI centers. We have to keep changing the family and children food habits to eat fruits, vegetables, or eggs. But it seems that when mothers pick their children up from day care they feel guilty and try to reward them with an unhealthy snack. We see that all the time.”⁴⁵ Thus for every step forward the JUNAEB or JUNJI nutrition education programs attempt to achieve, their progress is severely hindered by the vendors of unhealthy food working against them.

⁴³ Kain, J et al. “Childhood nutrition in Chile: From Deficit to Excess.” *Nutrition Research*. Nov 18, 1998: 1825-1837.

⁴⁴ JUNAEB Nutrition Map: Situación Nutricional de los Escolares Chilenos de primero Básico. www.junaeb.cl. Accessed on May 13, 2009.

⁴⁵ Inés Roco Vargas, Chief of the Nutrition and Health Program for JUNJI. Personal Interview. Santiago, Chile. April 21, 2009.

Conclusion

Chile's child nutrition programs, supported by consistent and robust political will, have been dramatically successful in reducing malnutrition and increasing school participation. Created as programs to ensure that all children have the opportunity to succeed in school, these government sponsored programs have developed strong public-private partnerships that are effective in serving meals to over two million infants and children each day. At the same time that malnutrition has declined, the obesity rate has increased dramatically. As Chile maintains its commitment to equal opportunities to succeed in the education system and assuring that all children are well nourished, its recent and growing challenges regarding obesity present a new role for JUNAEB and JUNJI.

III. School Feeding in India: A Rights-Based Approach



Introduction

The Supreme Court of India, as part of a case brought to Court in 2001, mandated that the state and national governments provide a noontime meal in all government and government-aided primary schools as part of the nation's commitment to the Right to Food. Following that decision, the Government of India has increased its school feeding program to be among the largest programs in the world, feeding approximately 120 million children a Mid Day Meal (MDM) each day.⁴⁶ Prior to the Supreme Court case, the central government had launched a nationwide program in 1995 with the mission of “universalization of primary education by increasing enrollment, retention and attendance and simultaneously impacting on nutrition of students in primary classes,” but the program was not a legal entitlement and it was inconsistently implemented.⁴⁷ A few state governments had taken initiative even earlier (Tamilnadu beginning in 1925 and Gujarat beginning in 1984) and had been operating programs in at least portions of their states.

In addition to government run programs, non-profit organizations have developed innovative public-private partnerships to assist in ensuring that the nation's children receive high quality meals. One such non-profit, Akshaya Patra, has developed central kitchens using innovative technology capable of producing meals for 250,000 children daily. While the legal framework and political commitment for school feeding is strong, the gap between the stated intent of the government and the implementation of the programs remains large as the number of hungry people in India continues to be among the largest in the world.

Right to Food

“The rights-based approach is far from being merely a theory or an ideal. It is utterly practical: the non-realization of human rights is not only a frequent result of poverty but also one of its major causes, which means that working to realize these rights is vital for combating poverty.”

-Food and Agriculture Organization of the United Nations

⁴⁶ Gustafson, Daniel. Food and Agricultural Organization. “Connecting School Feeding Programs with Local Agricultural Development: Indian Examples and Challenges.” Presentation at Global Child Nutrition Foundation Forum. July 2008.

⁴⁷ Deodhar, Satish et al. “Mid Day Meal Scheme: Understanding Critical Issues with Reference to Ahmedabad City.” Indian Institute of Management. Ahmedabad, India. W.P. No. 2007-03-03. 2007.

In 2001, during a widespread drought that fueled a famine across large regions of India, news that the Indian government had stockpiles of food, as well as reports of food being dumped in the ocean or exported at reduced prices, incited outrage throughout the country. Fueled by the public outcry, the People's Union for Civil Liberties (PUCL) filed a lawsuit against the following entities: the Union of India; all of India's state governments; and the Food Corporation of India, a corporation created by the central government of India under the Food Corporation Act of 1964 for the purpose of providing price supports for farmers, distributing foodgrains for the Public Distribution System, and promoting national food security through maintaining buffer stocks of foodgrains.⁴⁸ PUCL demanded "the immediate utilization of the country's food stocks for drought relief and prevention of hunger."⁴⁹ The case was brought to the Supreme Court, who found "as a fact that *food was available while people were dying from starvation.*"⁵⁰ Despite widespread famine, the country held approximately 50 million tons in food stocks.⁵¹ The Court determined that this was in violation of both the Indian Constitution and international obligations.

The Court determined that, while the Right to Food is not directly mentioned in the Indian Constitution, that it is implicitly protected. Article 21 of the Constitution states: "No person shall be deprived of his life or personal liberty except according to procedure established by law." While Article 21 does not specifically mention the Right to Food, the Supreme Court determined that the right to life "implies the right to food, water, decent environment, education, medical care and shelter."⁵² Additionally, Article 47 of the Constitution obligates the State to "regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties." The Court determined that according to these Articles, Indians have a Constitutional Right to Food that the Government must respect, protect, and fulfill.

In addition to the Constitutional protections, India had been a State Party to the International Covenant on Economic, Social, and Cultural Rights (ICESCR) since 1979. The ICESCR is the major international agreement protecting the Right to Food, since 1979. As a member, India is obligated to "recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to...take appropriate steps to ensure the realization of this right"⁵³ In addition to ICESCR, India had also ratified the International Covenant on Civil and Political Rights, the Convention on the Rights of the Child,

⁴⁸ Food Corporation of India. "About Us." Food Corporation of India Website. Accessed on June 16, 2009 at <http://fciweb.nic.in/Stocks/frame.html>.

⁴⁹ Food and Agriculture Organization of the United Nations. *The Right to Food Guidelines: Information Papers and Case Studies*. Case Study on India. Rome, 2006: 122-124. Accessed online at www.fao.org/docs/eims/upload/214344/RtFG_Eng_draft_03.pdf on June 5, 2009.

⁵⁰ Food and Agriculture Organization of the United Nations. "The Right to Food in Practice: Implementation at the National Level." Rome: 2006. Page 15. Emphasis added.

⁵¹ Ziegler, Jean. "The Right to Food: Report of the Special Rapporteur on the Right to Food. Addendum. Mission to India. August 20 – September 2, 2005." Commission on Human Rights. Economic and Social Council. March 20, 2006. Accessed at www.righttofood.org/new/PDF/India%20PDF.pdf on June 5, 2009.

⁵² Ibid

⁵³ International Covenant on Economic, Social, and Cultural Rights. Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966. Article 11. Accessed on the United Nations Office of the High Commissioner for Human Rights website on June 3, 2009. http://www.unhcr.ch/html/menu3/b/a_icescr.htm

and the Convention on the Elimination of All Forms of Discrimination against Women, all of which contain articles protecting the Right to Food.⁵⁴

While the Supreme Court case, PUCL vs. Union of India and Others, Writ Petition [Civil] 196, is awaiting final judgment and thus remains open, many important interim orders have been passed that confirmed the Right to Food as a Constitutional right and ordered both the national and state governments to proactively take steps to ensure this right is protected.⁵⁵ As part of the Supreme Court's official recognition of the Right to Food, it ordered the central and state governments to take specific actions to improve the situation of hunger and malnutrition in the country. Among these measures, the Court ordered that eight of the nation's nutrition programs—including the Mid-Day Meal Scheme (school lunch program); the Integrated Child Development Scheme (ICDS) serving children 0-6 years; and the Public Distribution System—become legal entitlements. The order specified that a cooked lunchtime meal be provided in all government and government-aided primary schools in the nation.

Mid-Day Meal Scheme

The Mid-Day Meal Scheme (MDM), run by the Ministry of Education through state agencies, is funded and operated as a partnership between the state and national governments. The central government provides staple grains and a cash subsidy per child. The bulk grains are provided through the Food Corporation of India (FCI), which provides 100 grams of cereals per child per day (450 calories), for a total of 2.6 million tons a year.⁵⁶ In addition to grain, the central government supplies: 1.80 rupees (northeastern states) or 1.50 rupees (all other states) per child per day for cooking costs; up to 75 rupees per quintile for grain transportation (100 rupees in special category states); costs for management, monitoring and evaluation totaling 2% of the value of the grain, cooking, and transportation subsidies. In addition to its support during the school year, the central government supports a MDM program during summer vacation in drought affected areas.⁵⁷ The state governments supplement the central government support with a minimum of .20 (northeastern states) or .50 rupees (all other states) for cooking costs including stipends for cooks, and fuel or firewood for cooking. States are required to contribute in order to receive central government funding. Food is generally prepared by local women, who are paid a small stipend.

Funding for school feeding, along with the other food distribution programs such as the Public Distribution System (PDS) and Integrated Child Development Services (ICDS), constitutes at least 10% of central government spending and 1.7% of Gross Domestic Profit. The five to ten billion dollars spent on food distribution a year is greater than the public spending on health and is half of the total public spending on education.⁵⁸

⁵⁴ Ziegler, Jean. "The Right to Food: Report of the Special Rapporteur on the Right to Food. Addendum. Mission to India. August 20 – September 2, 2005." Commission on Human Rights. Economic and Social Council. March 20, 2006. Accessed at www.righttofood.org/new/PDF/India%20PDF.pdf on June 5, 2009.

⁵⁵ For a list of interim orders, visit: <http://www.righttofoodindia.org/orders/interimorders.html>

⁵⁶ Gustafson, Daniel. Food and Agricultural Organization. "Connecting School Feeding Programs with Local Agricultural Development: Indian Examples and Challenges." Presentation at Global Child Nutrition Foundation Forum. July 2008.

⁵⁷ "Mid-Day Meal Scheme." Government of India. National Portal Content Management Team. Reviewed on March 31, 2009. Accessed at http://india.gov.in/sectors/education/mid_day_meal.php on June 16, 2009.

⁵⁸ Gustafson, Daniel. Food and Agricultural Organization. "Connecting School Feeding Programs with Local Agricultural Development: Indian Examples and Challenges." Presentation at Global Child Nutrition Foundation Forum. July 2008.

The Government of India has set nutrition standards for the minimum requirements for meals. According to the 2006 revised version of these regulations, meals must contain a minimum of 450 calories and 12 grams of protein each day, as well as meet minimum quantity requirements of certain micronutrients including iron, folic acid, and vitamin A.⁵⁹ Menus vary according to local eating customs. A typical menu in Andhra Pradesh, a state in South India, for example, includes rice, dal (pulse) and vegetables daily, with egg once or twice a week and fruit (generally a banana) once or twice a week.⁶⁰

While the Mid-Day Meal Scheme is an entitlement program that the Supreme Court has ordered the Government of India make available for all children in government primary schools, the program varies widely throughout the country. The government guidelines for the food that is served is often unmet, often because funding is insufficient.⁶¹ In the words of Jean Ziegler, Special Rapporteur on the Right to Food, “this order has not been equally implemented across the different states.”⁶² The first source of variance is whether or not the program even exists in an area, for even though the court ordered that programs begin in 2001 and 2002, there are still government or government-assisted schools that remain without a school meal program. In areas where a program does exist, the meal quality is inconsistent.

Akshaya Patra: The Promise of Public-Private Partnerships and Innovative Technology

In 2000, a year before the People’s Union for Civil Liberties case was brought to the Supreme Court, an Indian non-profit organization, the Akshaya Patra Foundation, was founded with the vision that “No child in India should be deprived of education because of hunger.” The organization began a school feeding operation that served 1500 students in five schools in Bangalore. After the Supreme Court mandated that the Government of India provide a cooked mid-day meal for all children in Government or Government-aided schools, the Indian government partnered with Akshaya Patra to support and expand its work.

The Government of India began to provide staple grains plus a small subsidy per child, which Akshaya Patra supplemented with funding from private donors to improve the meal quality. As Mohandas Pai, trustee of the Akshaya Patra Foundation and also a Member of the Board and Director-Human Resources for Infosys Technologies, explained, “This is a public-private partnership which is publicly-funded and privately managed with the use of as much technology as possible.”⁶³ Currently, these government subsidies and grain support 60% of Akshaya Patra operations and private and corporate contributions support the other 40%.⁶⁴

⁵⁹ “Mid-Day Meal Scheme.” Government of India. National Portal Content Management Team. Reviewed on March 31, 2009. Accessed at http://india.gov.in/sectors/education/mid_day_meal.php on June 16, 2009.

⁶⁰ Bamji, Mahtab et al. “Promotion of Vegetables through the Mid-Day Meal Program in Rural Schools.” Dangoria Charitable Trust. Hyderabad, India.

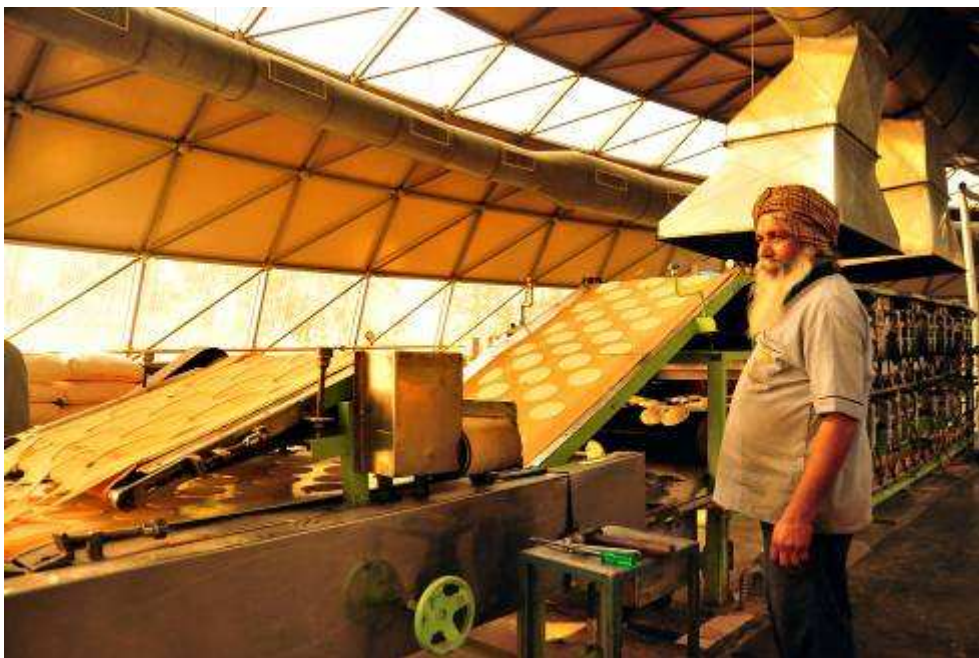
⁶¹ Ibid

⁶² Ziegler, Jean. “The Right to Food: Report of the Special Rapporteur on the Right to Food. Addendum. Mission to India. August 20 – September 2, 2005.” Commission on Human Rights. Economic and Social Council. March 20, 2006. Accessed at www.righttofood.org/new/PDF/India%20PDF.pdf on June 5, 2009.

⁶³ Roy, Subir. “Akshaya Patra goes corporate.” *Business Standard*. January 15, 2008. Accessed at <http://www.business-standard.com/india/storypage.php?autono=310684> on June 12, 2009

⁶⁴ Woo, Nicole. “The Akshaya Patra Foundation: A Public-Private Partnership to Feed India’s Children.” June 2008.

One of the most unique aspects of the Akshaya Patra Foundation is its use of innovative technology to produce massive quantities of food. A team of Indian engineers designed specialized kitchens for Akshaya Patra to produce large scale quantities of food in a short period of time. They developed rice cauldrons that cook enough rice to serve 1,000 children in 15 minutes, cauldrons to cook enough vegetables for 6,000 children in two hours, and a customized bread production system that prepares over 12,000 pieces of *roti*, an Indian flatbread, in one hour. Akshaya Patra's engineers have also developed customized delivery trucks that are each capable of transporting meals for 5,000 students. Using this innovative technology and large-scale central kitchen model, Akshaya Patra was able to rapidly increase the number of meals served in a short period of time. By March 2007, Akshaya Patra expanded its operations to serve 2000 schools and 567,622 children a day. Over the past two years, that number has nearly doubled and Akshaya Patra is now serving over 1 million students a day. As of June 2009, Akshaya Patra was operating 17 highly sophisticated central kitchens, each capable of preparing a maximum of 100,000 – 250,000 meals a day.



Akshaya Patra *roti*-making machine produces 12,000 pieces of Indian flatbread in one hour.

One of the strengths of the Akshaya Patra model is its willingness to adapt to local realities and customs. For example, while the central kitchen models are highly successful in many regions of India, in areas that are less densely populated it is not the best model. Akshaya Patra acknowledged this and began to operate a decentralized model in which they work with local women's self-help groups to prepare school meals that are healthy and sanitary. Within the central kitchens, each is designed to meet the food customs and dietary preferences of the region. In northern India, where flat bread is more customary, central kitchens are equipped with *roti* or *chapatti* machines, whereas in southern India large-scale rice cauldrons are more common. Akshaya Patra staff regularly visit schools to have food tastings with children to ensure that the food suits their tastes.



Source: *Zero to Billion: Sharing the Akshaya Patra Story*

Pictured here are typical Akshaya Patra meals. On the left is a typical dish Akshaya Patra serves in North India—chapattis, dal or sabji, and vegetable rice or kheer. On the right is a typical meal served in South India—rice, lentils with vegetables and yogurt. If at the end of the meal children are still hungry, they can return to the pot until they are satisfied.

The Akshaya Patra model is a strong example of public-private partnerships and innovative use of technology. The partnership is mutually beneficial. It is helpful to Akshaya Patra, who is able to feed more children with assistance from government funding. It is beneficial to the Government of India, as it seeks to feed more children high quality meals. Whereas there have been reports of inconsistency in the quality of government meals, the meals provided by Akshaya Patra are cited as being consistent and of high quality.⁶⁵ This in turn is beneficial to the children participating in the program, who are provided high quality meals of unlimited quantity.

Challenges

The anxiety of the Court is to see that the poor and destitute and the weaker sections of the society do not suffer from hunger and starvation. The prevention of the same is one of the prime responsibilities of the Government—whether Central or the State. Mere schemes without any implementation are of no use. What is important is that the food must reach the hungry.

-Supreme Court of India, *People’s Union for Civil Liberties v. Union of India & Ors*, 2001

The government of India has made some strong pledges to ensuring and protecting the Right to Food, however the gap between its commitment and reality is profound. According to the 2008 Right to Food and Nutrition Watch, “the Government of India is failing to meet its obligations and is thus violating international human rights law.”⁶⁶ While large amounts of government funding has been designated to hunger alleviation, independent assessments have shown that the majority of this food assistance is diverted through “various leakages in the distribution process”

⁶⁵ Dasa, Chanchalpathi. “School Feeding in India: The Akshaya Patra Foundation.” Presentation at the Global Child Nutrition Foundation Forum. Philadelphia, PA. July 2008.

⁶⁶ “Right to Food and Nutrition Watch.” Zero Issue. The World Food Crisis and The Right to Food. October 2008. Published by a partnership of Bread for the World, ICCO, and FIAN International. Accessed on-line at <http://www.fian.org/resources/documents/others/right-to-food-and-nutrition-watch-zero-issue/pdf> on June 3, 2009.

before reaching those most in need.⁶⁷ On the operational side, the Government of India has had challenges with “inconsistent food quality, occasional food poisoning, poor hygiene, and operational concerns” in the Mid-Day Meal scheme.⁶⁸ The Supreme Court mandate that these meal programs be operating in all districts by May 28, 2002 has not been met, with some districts still not providing school meals.⁶⁹

Though violations of the Right to Food continue to exist, Indian citizens can take legal recourse if their right has been violated. As part of one of the Supreme Court Interim Orders, two Commissioners of the Court were appointed for the specific purpose of monitoring and enforcing the Right to Food.⁷⁰ Thus, despite its challenges, it is clear that the Government of India has significantly increased its political will to support school feeding and the program has rapidly expanded since 2001 and cooked lunches are becoming a routine part of the school day in primary schools across India.⁷¹

⁶⁷ “Right to Food and Nutrition Watch.” Zero Issue. The World Food Crisis and The Right to Food. October 2008. Published by a partnership of Bread for the World, ICCO, and FIAN International. Accessed on-line at <http://www.fian.org/resources/documents/others/right-to-food-and-nutrition-watch-zero-issue/pdf> on June 3, 2009.

⁶⁸ Upton, David et al. “Akshaya Patra: Feeding India’s Schoolchildren.” Harvard Business School. 9-608-038. December 17, 2007.

⁶⁹ “Mid-Day Meals in Primary Schools. January 2004.

⁷⁰ Food and Agriculture Organization of the United Nations. *The Right to Food Guidelines: Information Papers and Case Studies*. Case Study on India. Rome, 2006: 122-124. Accessed online at www.fao.org/docs/eims/upload/214344/RtFG_Eng_draft_03.pdf on June 5, 2009.

⁷¹ Drèze, Jean and Aparajita Goyal. “The Future of Mid-Day Meals.” *Frontline*. August 1, 2003.

Conclusion

There is no single model for how to implement school feeding programs. Each program must meet local needs and realities. The three country experiences in this study have each faced significant challenges as well as successes, experiences from which others can learn. While central kitchens in India and Chile that mass produce meals may work well in other densely populated areas, this model may not be as successful in more rural areas of Mali. The community contribution and volunteer food preparation of school feeding that works in Mali be a valuable model for many agricultural countries, but may fail in industrialized countries where families do not have agricultural products or schedules conducive to this type of involvement. Similarly the rights based approach that fits within the Indian context may not be as relevant to countries where rights are not part of local discourse or legal structures.

While the realities in Mali, Chile, and India are each quite distinct and the country experiences highlighted here vary significantly, each of the programs are creating opportunities for children. In Mali this may mean giving children the opportunity to have basic nutritional needs met and finish primary school. In Chile school feeding is part of a larger government goal to ensure equity in education. In India school feeding is deeply entrenched in language of the rights and opportunities to live and thrive. Thus while this does not have to be the same opportunity in each country or the same method of creating it, these country experiences illustrate that school feeding is about more than feeding children—they are about helping children have the tools they needed to grow, learn, and thrive.