

# SHARING RISK AND REWARD

Public-Private  
Collaboration  
to Eliminate  
Micronutrient  
Malnutrition

Report of the  
**FORUM ON  
FOOD FORTIFICATION**  
International Dialogue  
on Micronutrient  
Malnutrition

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The Keystone Center

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**P A M M**  
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THE COLLABORATION OF NATIONS

Held in Ottawa, Canada  
December 6-8, 1995

# SHARING RISK AND REWARD

## **Public-Private Collaboration to Eliminate Micronutrient Malnutrition**

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The  
Micronutrient  
Initiative



L'initiative  
pour les  
micronutriments



**The Keystone Center**

PROGRAM AGAINST MICRONUTRIENT MALNUTRITION  
**P A M M**  
TOWARDS THE ELIMINATION OF HIDDEN HUNGER

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FORUM ON FOOD  
FORTIFICATION**

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**The Micronutrient Initiative**

**UNICEF**

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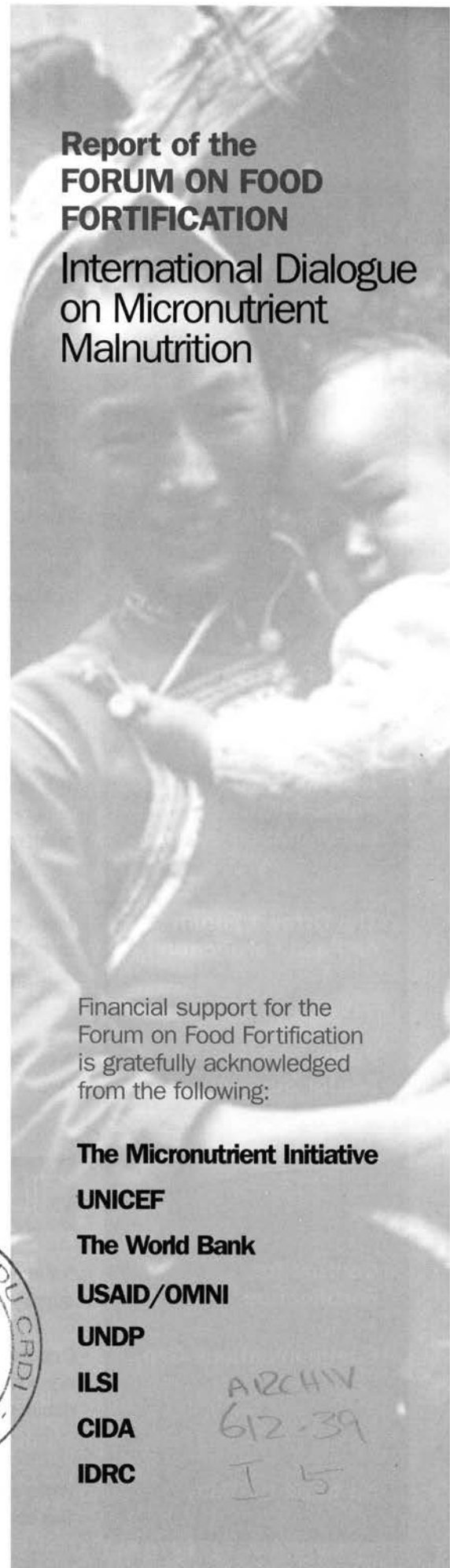
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## INTRODUCTION

The Honourable Jon M. Gerrard, Secretary of State, Science, Research, Development and Western Economic Diversification – Government of Canada

## BACKGROUND TO THE FORUM

Due to iron, iodine and vitamin A deficiencies, 30% of the world's population are unable to achieve their full mental and physical potential. While micronutrient deficiencies depress gross national product by as much as 5% annually, a comprehensive and sustainable solution would cost less than one-third of one percent of the GNP.

Fortification of commonly eaten foods with micronutrients offers a cost-effective solution that can reach large populations.

The public sector, which has the mandate and responsibility to improve the health of populations, and the private sector, which has the experience and expertise in food production and marketing, can collaborate to make fortified foods widely available.

More than 120 public and private sector leaders discussed collaborative approaches to the elimination of micronutrient malnutrition and the need to establish national dialogues and other action-oriented linkages.

A pre-conference survey of 200 executives and public officials in 12 developing countries revealed communications gaps and confirmed the need for dialogue.

## COLLABORATION: OPPORTUNITIES & CHALLENGES

National strategies should employ a mix of fortification, dietary diversification and supplementation, and be coordinated with other public health goals.

Opportunities for collaboration are hampered by a communications gap between public agencies and private producers. Industry leaders have not been challenged to respond to public goals and governments are often uninformed about business needs.

While constraints and shortcomings do exist, there is no need to delay action. The consequences of inaction are too serious.



**Creating Public Awareness**

**Developing Consumer Demand**

**Defining Coverage and Market Segments**

**Identifying Food Vehicles**

**Marketing Campaigns**

**Keeping Products Affordable**

**Assuring Quality**

**KEY ISSUES FOR NATIONAL ACTION**

A potential market for fortified food exists but it requires an initial investment in public education and awareness to create consumer demand.

Developing consumer demand entails not simply targeting populations and promoting fortified products but developing the right product, price and packaging.

The public health community seeks high coverage of large populations, while the private sector segments the market to identify niches of opportunity. Each national dialogue will determine its own approach.

While fortifying staple foods has the greatest public health impact, basic and value-added foods can also disseminate micronutrients throughout the population.

Collaborative campaigns draw on strengths of both sectors. Public agencies emphasize health benefits, while private companies excel in creating powerful consumer-oriented messages.

Costs of fortified foods must be kept low to assure demand from poorer populations, but high enough to ensure adequate supplies from producers. Risks and costs can be shared.

Quality assurance should be the responsibility of both sectors. A priority task for national dialogue will be to define complementary public and private roles.

**Roles and Responsibilities:  
National Governments**

**Private Food Companies**

**International Agencies and NGOs**

**Strategic Options for National Action**

**Closing Remarks**

**APPROACHES TO COLLABORATION**

There is a need for political will, matched by clear policies and unified decision-making. Dialogue during the legislative process would help ensure legislation creates an enabling environment for private food companies.

Private industry can take an advocacy role and focus on its strength in creating products and technology, marketing and distribution, and competing on quality and price.

International agencies and NGOs can provide technical support and funding, help compile data for baseline measurements, act as catalysts, and help bridge communications gaps.

A summary of suggested next steps to initiate, develop and sustain a national public-private dialogue.

Dr. Keith Bezanson, President, International Development Research Centre, Canada

**APPENDIX**

Summary of Public-Private Sector Surveys  
Roster of Participants

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# PREFACE

**A**t the World Summit for Children in 1990, 123 heads of state agreed upon a plan of action to support the survival, protection and development of children. Specific goals included virtually eliminating vitamin A and iodine deficiencies and substantially reducing iron deficiencies by the year 2000. After a half decade of considerable progress toward reaching those goals, the key to sustaining past achievements while continuing to move forward is the broad engagement of the private sector.

The International Dialogue on Micronutrient Malnutrition was jointly conceived by three non-governmental organizations as a vehicle to help bridge the historical, organizational and cultural gaps that have kept governments and food industries from challenging each other to invest in a twenty-first century free of micronutrient malnutrition. The Micronutrient Initiative (MI) and the Program Against Micronutrient Malnutrition (PAMM) focus on advocacy, training and technical assistance in the field of micronutrient malnutrition. The Keystone Center has a long history of bringing together diverse parties to solve difficult health and environmental problems. The three organizations first met in the summer of 1994 to discuss how to stimulate partnerships among governments, international agencies, and national and multinational food industries to address the global problem of micronutrient malnutrition. It was soon recognized that new relationships had to be charted by the players themselves in a neutral arena where diverse groups could share perspectives, understand differences, and explore areas where their interests converged.

Micronutrient malnutrition is a global problem. But it will be eliminated one country at a time. The most fruitful dialogue will be between government and industry at the national level. However a foundation of trust and openness is a prerequisite to collaboration and it was felt that an international forum could introduce participants to the dialogue process, promote goodwill in all sectors, and stimulate a number of national public-private dialogues.

The Ottawa Forum on Food Fortification became a natural first step. It took place in December 1995 after a year of intense planning by PAMM, MI and The Keystone Center staff. We initially planned to bring together a relatively small group of 40 leaders from the two sectors to build trust, garner information and stimulate national activity. As interest grew, we decided to expand the number of participants to 120 to accommodate all those who wanted to attend.

We started with the realization that governments and the food industry had already been working together in a number of countries, providing a rich experience from which to learn. In order to tap into this history, we surveyed more than 200 public officials and food industry executives. We wanted to learn how the public sector had attempted to engage the private sector and with what success. We asked the private sector what they knew about micronutrient malnutrition and what they were doing about it. Both sectors were queried regarding their perceptions on food fortification and prospects for collaboration. Results of the survey were analyzed, synthesized and presented at the Ottawa Forum.

With the additional assistance of USAID through the OMNI Project, UNICEF, UNDP, ILSI, and the World Bank, we invited a diverse group of interested individuals to Ottawa. A complete list of country and food industry representatives participating in the Forum is included in the Appendix to this report. This unique and energizing meeting will serve as the springboard for specific collaborative actions to address micronutrient malnutrition at the national level.

The Ottawa Forum on Food Fortification and the report that follows were not structured to issue a specific policy statement. Rather the Forum provided a non-partisan platform and an open opportunity to explore a range of viewpoints and potential solutions. After three days of interaction and deliberations, recurring themes began to define a common ground. This report attempts to synthesize broad informal discussions, highlight the major themes and suggest areas for collaborative action. To facilitate frank and open discussion, remarks made during the work group sessions were not for attribution. As a result, all participant quotes are taken directly from facilitators' notes and are not credited to specific individuals.


What is important about the Forum is not necessarily the substance of discussions or resulting recommendations, but the process by which the participants engaged one another in a spirit of eager cooperation and goodwill. New contacts were made, relationships were fostered, trust was built, momentum was created, and specific plans for collaboration were established.

**Venkatesh Mannar**  
Executive Director  
The Micronutrient Initiative

**Glen Maberly**  
Director  
Program Against  
Micronutrient Malnutrition

**John Ehrmann**  
Executive Vice President  
The Keystone Center

# ACKNOWLEDGMENTS



The Forum was coordinated through an Executive Committee which included Venkatesh Mannar of The Micronutrient Initiative, Glen Maberly and Frederick Trowbridge of PAMM, Bob Craig and John Ehrmann of The Keystone Center and David Haxton. Jack Bagriansky served as meeting coordinator and undertook the preparatory survey work along with Rose Nathan. The staff of the conveners deserve special thanks for their valued input in organizing the Forum: Jenny Cervinkas and Mahshid Lotfi of the MI; Kristi Parker, Denise Siebert and Paul De Morgan of The Keystone Center; Claudia Fishman Parvanta, Robin Houston, Penny Johnson and Rose Nathan of PAMM. The difficult logistical work done by Tanya Guay and Alison Greig of the MI is deeply appreciated. IDRC is to be thanked for providing additional needed administrative and logistical support; and in particular we are grateful for the assistance provided by Julie Hauser, Angie Anton and Susan Warren. This report was prepared by Jack Bagriansky, based on rapporteur notes and critical input provided by Jenny Cervinkas, Dr. Mahshid Lotfi, Venkatesh Mannar, Glen Maberly, Claudia Fishman Parvanta, Robin Houston, Rose Nathan and David Haxton.

Support for the Ottawa Forum on Food Fortification was provided by the MI, USAID through the OMNI Project, the World Bank, UNDP, IDRC and ILSI. The attendance of many participants was made possible by support from UNICEF, the World Bank and USAID through the OMNI Project. The publication of this report was made possible by USAID through the OMNI Project. The Program Against Micronutrient Malnutrition and The Keystone Center contributed core resources to the project.

We would like to extend our deepest appreciation and thanks to the individuals and institutions that helped make the Ottawa Forum a reality. We especially would like to thank:

- the World Bank, UNICEF, USAID, UNDP, and ILSI for their sponsorship;
- the Country Coordinators: Rolf C. Carriere and Dr. T. O. Kyaw-Myint, Bangladesh; Dr. Ernest Schloffelen, Bolivia; Dr. Vesna Bosnjak and Dr. Oscar Castillo, Brazil; Dr. Vanessa Tobin, Dr. Ibrahim El-Kerdany and Dr. Kamel Abdel Monem El Zaweily, Egypt; Ms. Ernestina Agyepong and Dr. E.E.K. Takyi, Ghana; Dr. C.S. Pandav and Dr. Sheila Vir, India; Dr. Benny A. Kodyat, Indonesia; Ms. Nancy Gonzalez, Mexico; Mr. James J. Mayrides and Dr. Birthe Pedersen, Pakistan; Mr. Keshab B. Mathema, Philippines; Dr. Vincent Orinda and Ms. Samantha Quigley, South Africa; and Mrs. Judith R. Mutamba, Zimbabwe, for their hard work in assisting with administering the surveys and inviting participants from their countries;
- the survey respondents for their keen insight, opinions, and ideas that provided a starting point for and helped shape the discussions at the Forum; and
- the participants for their interest, interactions, and input at the Forum.

The Forum was a truly participatory event and could not have succeeded without the openness, goodwill, and energy exhibited by everyone involved.

# OPENING REMARKS

## EXCERPTS OF REMARKS MADE ON OPENING DAY OF THE FORUM

**W**hat is exciting about your initiative against micronutrient malnutrition is that it is not only idealistic, it is realistic. Governments everywhere are cutting back on expenditures. Corporations everywhere are nervous about their bottom line. Both the private and public sector are looking for what has popularly become known as “more bang for your buck” ways to spend a minimum amount of money for maximum effect. I cannot think of another project within which so much good could be done, for what amounts to pennies per person. Nor can I think of a better example as to how the marketplace, governments and the non-profit sector could join hands to everyone’s benefit. We are going to have to see a lot more of this in coming decades if humanity is going to get through what are likely to be some pretty tough times, and you are at the forefront of that movement.

Let me compliment the private sector representatives in particular. This project cannot be accomplished without the private sector. The private sector has the expertise and the opportunity to play the lead role in curbing micronutrient malnutrition. I am sure that those private interests who act in the public benefit will also stand to gain greater credibility in the marketplace, leading to greater success in the marketplace. Ever since the fall of the Berlin Wall people around the world have been putting an increasing amount of faith in the private sector. Since so many non-capitalist options have fallen short, they are counting on capitalism to be an agent of positive change. There is a responsibility there. And there is a self-interest. The private sector needs a stable, healthy world in which to operate. The progressive corporate leaders I have talked to understand.

To those of you who represent international institutions, let me say I appreciate your presence, and the importance of the work that you do that is very often too large to be tackled by any one country alone. To those of you who represent other donor countries, I know of the work that some of Canada’s friends have done in this area, and I commend you. For those of you who represent corporations and NGOs, I salute you as the wave of the future. Governments will continue to perform important tasks in this world of ours, but to an increasing extent, our future is going to depend on you.

To the most important group of all, those of you who represent countries in which micronutrient malnutrition is a problem, I can only say that in the end, it will be your energy and the pressure that you exert on behalf of your people that will play the most important role of all in this coming-together of interests. If there is one thing that we have learned about international development over the past three decades, it is that successful solutions cannot be imposed solutions. I am very excited about what you are all doing here, and on behalf of my government, I wish you success. A lot of defenseless people around this battered globe are counting on you, and I know you will come up with a plan that will help relieve their agony.

— **The Honourable Jon M. Gerrard,**  
Secretary of State, Science, Research, Development and  
Western Economic Diversification – Government of Canada

**“I cannot think of another project within which so much good could be done, for what amounts to pennies per person. Nor can I think of a better example as to how the marketplace, governments and the non-profit sector could join hands to everyone’s benefit.”**



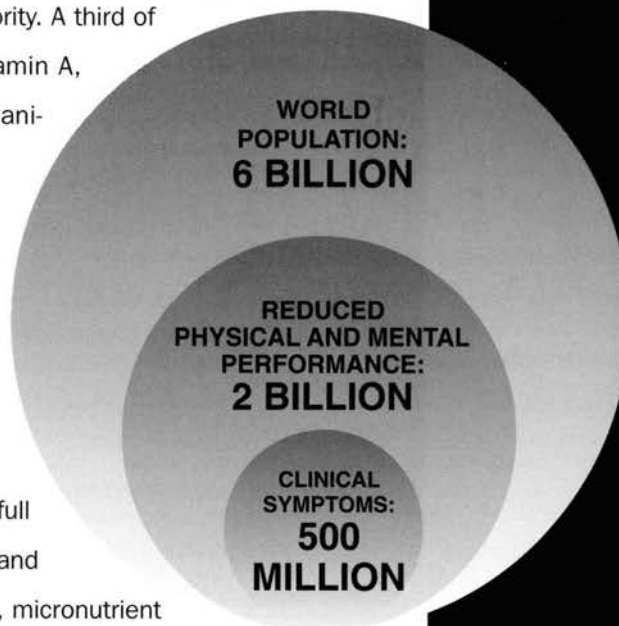
# BACKGROUND --- TO THE FORUM

**The elimination  
of micronutrient  
malnutrition is  
the 'Bargain of  
the Century.'**



# A GLOBAL PRIORITY

A decade of science and advocacy has positioned the elimination of micronutrient malnutrition as a global priority. A third of the world's population is affected by vitamin A, iron and iodine deficiencies. Clinical manifestations – childhood and maternal death, lowered immune response, blindness, mental retardation and anemia – ravage over half a billion people. But this human devastation is only the tip of the iceberg. Another two billion people throughout the socioeconomic spectrum, in both urban and rural settings, are marginally deficient in micronutrients and unable to achieve their full mental and physical potential as parents, workers and citizens. For nations, communities and individuals, micronutrient malnutrition takes a heavy toll in lost productivity, vitality and initiative.



This human tragedy and socioeconomic stagnation can be greatly alleviated. Distributing inexpensive capsules, diversifying diets to include more micronutrient rich foods, or fortifying commonly purchased food products can make an enormous difference. Improving vitamin A status can prevent one out of four infant and child deaths. Eliminating iodine deficiency can raise the mean IQ of entire populations by more than 10-15 points, improving individual initiative, school achievement, and work performance. Reducing iron deficiency can lower maternal deaths by about one-third and increase work capacity by 20% to 40%.

The World Bank estimates very high returns from investment in the elimination of micronutrient malnutrition. While micronutrient deficiencies depress the gross national product by as much as 5% annually, a comprehensive and sustainable solution would cost less than one-third of one percent of the GNP. Health savings result from reductions in morbidity, mortality, and the economic burden of caring for the sick. Social returns accrue from better educational performance in schoolchildren and improved parenting capabilities among adults. The economic dividends reflect higher productivity in the short and medium term, while building human capital for the long term.

**The tools  
to correct  
micronutrient  
malnutrition  
are at hand.**

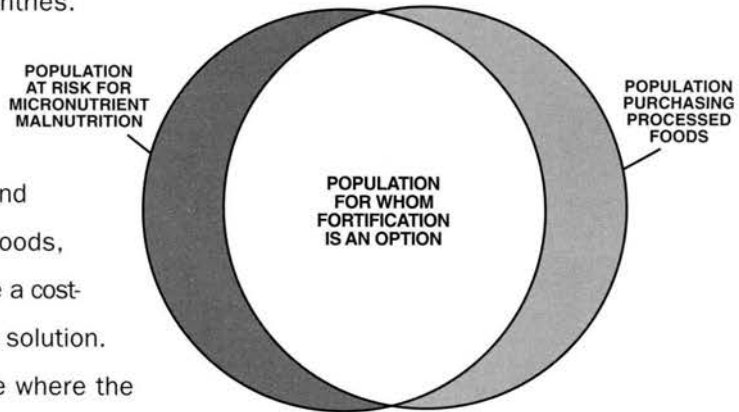
# FOOD FORTIFICATION: MAKING A DIFFERENCE

**F**ortification offers one of the most promising opportunities to deliver micronutrient rich foods to large populations. Minute quantities of vitamin A, iron or iodine added to commonly consumed foods have helped to eliminate micronutrient malnutrition in industrialized nations and many developing countries.

For the large and expanding population that

regularly purchases and consumes processed foods, fortification can provide a cost-effective and sustainable solution.

This is particularly true where the majority regularly consume processed staple foods.



Fortification cannot reach all people deficient in essential micronutrients – especially those with restricted access to centrally processed foods on account of geographic remoteness, poverty or cultural preferences. But for the bulk of the population it can make a crucial difference. Across geographic, social and economic lines, consumption of foods fortified with micronutrients can unlock the enormous human and economic benefits suggested by economists and nutritionists. Defined populations beyond the reach of fortified food products can be targeted with specific interventions such as capsule distribution or other food-based programs.

Governments, NGOs, research institutions and private food companies in a number of countries, with the support of international and bilateral agencies, have been working collaboratively to increase the availability of micronutrient rich foods. In less than a decade, these various sectors have come together to iodize nearly all the 20 million tons of salt consumed annually. That extraordinary achievement lays a foundation of success on which future collaboration can be built. However, most food company executives are unaware of the micronutrient malnutrition issue and the crucial role they can play in its solution. The challenge remains to open channels of communication and establish mechanisms of collaboration between the public sector which has researched and defined the problem and the private sector with experience and expertise in food production.

**With fortification  
we have  
an immediate  
opportunity to  
improve lives.**

# ROLE FOR PUBLIC-PRIVATE COLLABORATION

**A**s this century draws to a close, the roles of government and private industry are changing dramatically. In this new environment, the public sector must create strategies that engage and stimulate the private sector to contribute to the public good. Public agencies must communicate a micronutrient message that motivates industry to do more as government resources become increasingly limited.

Innovative partnerships of governments, private companies and international organizations in developing, producing, marketing and distributing micronutrient rich foods to vulnerable populations can offer benefits for all. Governments reap national health, economic and political benefits by providing effective administrative support and regulatory frameworks to create an enabling environment. Food companies investing in inexpensive fortified products will have a potential competitive advantage in growing markets. Multinationals can develop new consumers in previously untapped markets when they transfer technology and develop new fortified products. Through advocacy, strategic investment and focused technical assistance, the international scientific, development and donor communities can achieve the ambitious goals declared at the World Summit for Children. By demanding products fortified with essential micronutrients, consumers empower themselves to achieve their full social and economic potential.

**How can we  
capitalize on an  
enabling global  
environment where  
governments  
are becoming more  
business-like and  
private industries  
are recognizing  
their social  
responsibilities?**

**The key to  
our successful  
collaboration  
is to “keep our  
eyes on the prize” —  
the elimination  
of micronutrient  
malnutrition.**



**We have an opportunity to air our ideas, listen to new ideas, exchange experiences, verify hypotheses, and update scientific and technical information. The network of contacts, across sectors and within countries, opens up new areas of involvement.**

# OTTAWA FORUM ON FOOD FORTIFICATION

**T**he Micronutrient Initiative, the Program Against Micronutrient Malnutrition and The Keystone Center established the International Dialogue on Micronutrient Malnutrition to stimulate collaboration between the public and private sectors. The Forum on Food Fortification in Ottawa was a first step. The Forum assembled 120 leaders from governments, national and multinational private food industries, international and bilateral aid agencies, nongovernmental organizations, and research institutions to begin the dialogue. Discussions among these diverse sectors were facilitated by The Keystone Center, an organization with wide experience mediating nutrition, natural resources and environmental regulatory issues. Staff from PAMM and MI also participated, offering their field experience with micronutrient related issues.

Participants brought a wide range of backgrounds, experience and areas of expertise to Ottawa. The discussions were structured to capitalize on this rich diversity. First, work groups were organized on international and intersectorial lines so participants from a range of countries and disciplines could share perspectives and prospective solutions. Participants also met in national and regional work groups to explore country-specific challenges. Finally, industry sector groups focused on issues specific to the fortification of milled foods, fats and oil, salt, and value-added products. All work groups shared their insights during plenary sessions.

The Forum used a facilitated dialogue process to create an environment of mutual trust and respect in which partnerships could be nurtured and mobilized. The dialogue allowed participants with different perspectives to gain insight and understanding into each other's frames of reference, responsibilities and motivations, and suggested ways to move forward. The format provided a unique opportunity to develop directions for country-specific initiatives to involve both public and private sectors in partnerships to address the challenge of micronutrient malnutrition.

**The principal task before us is to mobilize and direct new arrangements, new partnerships and new coalitions.**



# PUBLIC AND PRIVATE SECTOR SURVEYS

In preparation for the Forum, a survey was administered to more than 200 executives and public officials in twelve developing nations, as well as representatives of international and bilateral aid agencies, multinational corporations, and research institutions in the United States, Canada and Europe. A summary report is provided in the Appendix.

The major finding of the survey was that efforts to eliminate micronutrient malnutrition have been hampered by a communications gap. While acknowledging the critical role of the food industry, the public sector had not reached out to the private sector with the micronutrient message. As a result, private sector executives were unaware of the magnitude of the problem. Furthermore, both public and private participants raised concerns about the lack of clear channels for the communication of technical information among scientists, policymakers, food technicians, producers and marketers. This professional communications gap feeds misunderstanding and indecisiveness among scientific and government organizations and results in lack of awareness in the general public.

The survey indicated both a need and desire for dialogue. Public sector respondents were committed to opening channels of communication while private sector respondents reported their receptivity to the micronutrient issue. Moreover, public and private officials tended to agree on key issues and priority actions for collaboration. Government and industry alike underscored the need to stimulate public awareness, create consumer demand, facilitate the flow of scientific and nutritional information, and build mechanisms for public-private communication and collaboration.

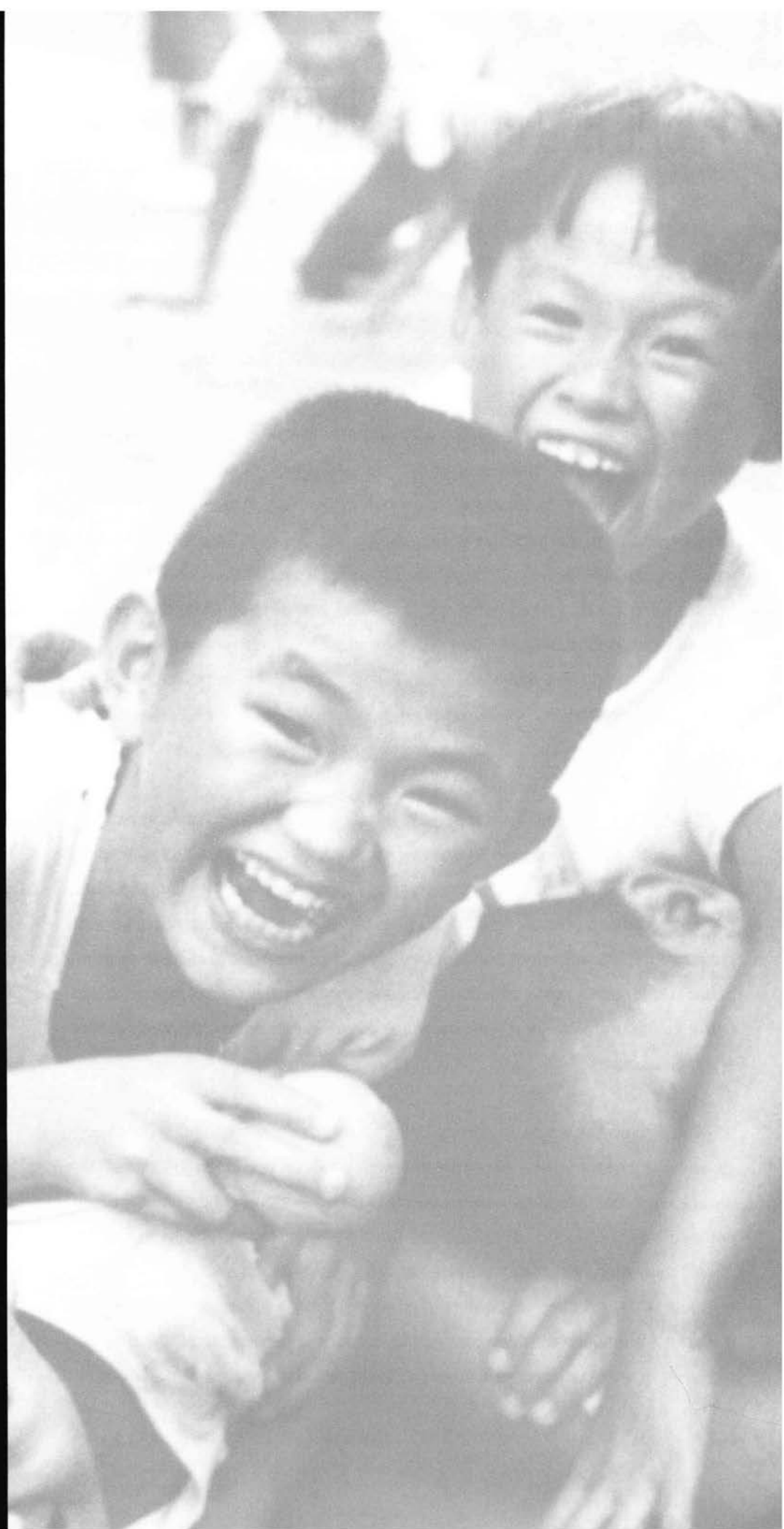
The survey served as a starting point for discussions by defining common ground. Where there was general agreement between public and private sectors, participants could begin to work on concrete strategies and action plans. When perspectives seemed to differ, such as the function of market research and the role of regulation, the Forum provided an opportunity to listen and learn from each other. When deep disparities in goals or cultures appeared, such as business impatience with government bureaucracy or public sector suspicion of the profit motive, participants agreed not to let differences prevent them from working together.

**Half the private sector respondents reported no contact from public officials on micronutrient issues.**

**Only 60% of the public sector said they had tried to explain their goals to private industry.**

**87% of industry managers said they would be interested in regular communication with the public sector.**

COLLABORATION:  
OPPORTUNITIES  
& CHALLENGES




**A**n unparalleled opportunity exists for governments, food companies and public agencies to collaborate on ensuring adequate intake of micronutrients for people around the world. The time is right because the foundations for building public-private collaboration are already in place. Almost all governments have nutritional plans that specify micronutrient malnutrition as an issue of national importance. Many are investing in national micronutrient malnutrition elimination programs. Epidemiological, scientific and economic research has gathered data to propose solutions, demonstrate impact and gain commitment. Food production and consumption patterns are shifting to more centrally processed and packaged food products. The food industry is becoming more international with new trade agreements accelerating the global movement of food technology, products and capital. Markets in developing countries are providing unprecedented opportunities to reward private investment and entrepreneurial energy.

The challenge of designing workable collaborative actions lies ahead. The solutions are available. Their impact is well documented. The potential economic, social and public health benefits are great. The cost of inaction is too high to ignore. The willingness of players from all sectors was demonstrated by the attendance and discussions at the Ottawa Forum on Food Fortification.



**The time is  
right for  
public-private  
dialogue.**

# THE CONTEXT FOR FORTIFICATION



**Strategies need to be designed on a country-by-country basis. This will require country-by-country studies.**

**Fortified fats and oil products can contribute to alleviating both caloric as well as micronutrient malnutrition.**

**F**ood fortification efforts unfold within a national context of specific cultural, political and market factors as well as the overall public health and micronutrient malnutrition situation. A range of agricultural, education and economic policies influence the national environment for food fortification. Participants recognized that successful strategies will adapt to regional differences, the proportion of urban and rural populations, food consumption habits, and the state of the food industry.

Elimination of micronutrient malnutrition is only one of the many global health goals adopted at the World Summit for Children. Micronutrient goals should be coordinated with other national health goals such as reducing the incidence of low birthweight babies, improving growth rates in children, increasing access to safe water and sanitation, and promoting breastfeeding. Programs have the greatest impact when planned in a complementary manner.

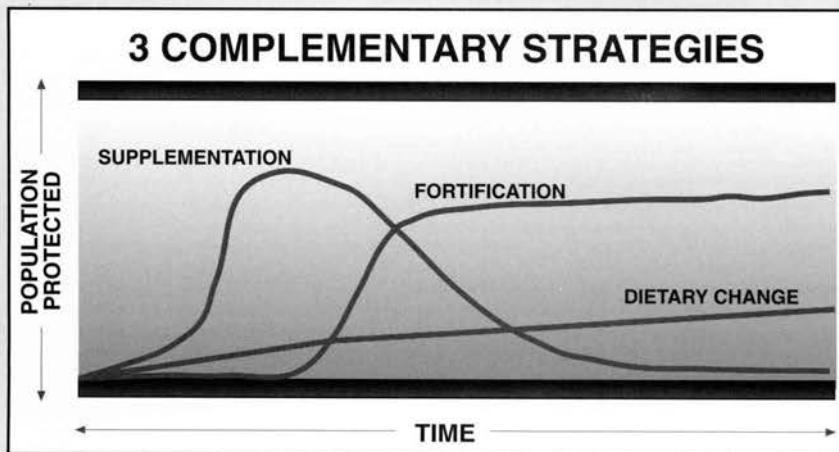
## **ISSUE FOR DISCUSSION: PARALLEL IMPACTS OF FORTIFICATION**

*While improving micronutrient status, will a rise in the consumption of fortified processed foods, sugar or fat also create future health problems from obesity, cancer or heart disease? Many from the public sector emphasized that they are not encouraging greater consumption of salt or sugar. They drew a careful distinction between public support for promoting the purchase of fortified foods as opposed to promoting increased consumption of a particular food vehicle.*

There was general agreement that a comprehensive national micronutrient elimination program will utilize a mix of three strategies to deliver micronutrients: fortification, dietary diversification and supplementation. Each strategy offers distinct advantages in reaching specific populations, capitalizing on particular market conditions or addressing different levels of deficiency. Participants agreed that fortification, supplementation and dietary diversification should not be conceived as “either/or” choices, but rather as essential components of a comprehensive program.

## ISSUE FOR DISCUSSION: A MIX OF STRATEGIES

*At the opening session of the Forum, a chart was presented to illustrate how the three interventions relate over time. The supplementation curve is steepest at the outset, showing that alliances to deliver supplements, primarily through the public health and NGO infrastructure, are in place. The slow rise of the dietary diversification curve indicates this is a long-term strategy, tied to overall improvement in economic and food security. The fortification curve indicates that fortification is a crucial part of the mix if goals are to be met by the year 2000. The delay in the rise of this last curve reveals that many of the alliances between public agencies and private food companies to deliver fortified foods have yet to be built.*



While the primary action to eliminate micronutrient malnutrition will take place on a national stage, participants noted the importance of the global backdrop of expanding international trade, technology and capital. After decades of competing in the mature markets of North America, Europe and Japan, multinational corporations increasingly look to developing nations for future growth and competitive advantage. With increasing resource constraints, international agencies, NGOs and donor countries are striving to better focus funding and technical support for national development. Many participants also suggested potential roles for international organizations such as the Codex Alimentarius Commission and the World Food Program.

**On many levels  
there is a  
synergy between  
a global  
dialogue and  
a national  
dialogue.**



# THE COMMUNICATIONS GAP: THE BASIC CHALLENGE

Opportunities for collaboration are hampered by a lack of communication between public agencies and private food industries. The public sector acknowledges the need for industry participation in efforts to eliminate micronutrient malnutrition, but actual communication with the private sector lags behind the rhetoric. At the same time, while accepting a larger role in addressing broad social and health issues, many in the private sector are not well informed about micronutrient malnutrition.

The communication gap means that industry leaders have not been challenged to respond to micronutrient malnutrition. Many do not understand its impact on the nation or their business, nor do they realize the role they can play in providing solutions. The gap also means public leaders often do not have input from the business community, resulting in legislation and regulation that sometimes restrict rather than enable private sector investment in food fortification. Participants agreed that in this environment outdated mental models, such as the public sector's suspicion of the profit motive, industry doubts about the public bureaucracy's results orientation, and national distrust of multinationals, prevent collaborative action to eliminate micronutrient malnutrition.

Discussions uncovered many bottlenecks in the flow of information from scientific and research institutions to government agencies and business organizations. The resulting confusion over technical issues often frustrates the translation of thorough knowledge of the micronutrient problem into effective solutions. Even though the benefits of fortification may be well documented, public officials often are hesitant to consider new legislation or revise regulations

## **IDEAS FOR ACTION: IMPROVED INFORMATION FLOW**

*Forum participants made a number of specific recommendations for improving access to professional information:*

- *Establish international database of decisions on fortificant levels*
- *Compile case histories of fortification efforts*
- *Publicize positive public health impacts of fortification*
- *Document benefits to private companies*
- *Develop global clearinghouse for patent and licensing information*
- *Recruit multinational network to assist and train national industries*
- *Convene conferences on iron fortification*

because of concerns about efficacy or fear of over-fortifying. While appropriate patents are buried in the files of multinational corporations, many national industries perceive fortification technology as too complex or expensive. Skepticism, inertia and inaction flourish.

Many of the most exciting technical advancements in recent years are in the area of iron fortification. However, many participants noted that information from the scientific community about prevalence of iron deficiency, the threat of toxic overload, recommended levels, preferred market forms, and the cost of various iron formulations has been ambiguous. This has created a perception that iron fortification is complex, costly and potentially dangerous. As a result, both public officials and private industries are hesitant to begin fortifying such promising vehicles as wheat and corn flour, or to double fortify salt with iron as well as iodine.

**IDEAS FOR ACTION:  
TECHNICAL INFORMATION ON IRON FORTIFICATION**

*Clarifying the state-of-the-art on iron fortification was a priority for many participants. Workgroups recommended an updated monograph on flour fortification, a comprehensive analysis comparing all the data on iron absorption, and initiation of global and regional meetings on the fortification of wheat and corn flours with iron.*

**ISSUE FOR DISCUSSION:  
LEARNING EACH OTHER'S LANGUAGE**

*Participants noted that improving communication between public and private sectors often simply means taking the time to understand terminology. For example, where the public health professional uses the term "target population," the food company manager uses "market segment" and political leaders may refer to "taxpayers" or "voters." For many in the public sector, "marketing" means promoting a product or solution while in the private sector it tends to mean actually developing as well as promoting the product or solution.*

There is a lack of recognition that fortification will have results, that things will improve with fortification.

# NO NEED TO DELAY

**M**any of the public and private participants agreed that constraints to food fortification should not delay immediate action. Some were concerned about potential toxicity or other health risks. Others expressed confusion about market forms and fortificant levels. Many felt that fortified food products often do not reach the poorest and most vulnerable. Still others noted counter-productive regulatory situations and lax quality control systems. However, work groups generally agreed that the consequences of not acting were more serious than the constraints. Inaction perpetuates the human suffering and negative economic impact of current levels of micronutrient malnutrition.

Collaboration need not mean that public and private partners see eye-to-eye on all issues. It does mean that every effort is made to keep everyone's "eyes on the prize" of eliminating micronutrient malnutrition and concentrate on activities of mutual benefit. Work groups believed collaboration will save time and money for both public and private sectors while effectively addressing micronutrient malnutrition. For the public sector, collaboration makes legislation, regulation and investment more focused and informed. Public resources are used more efficiently. For the private sector, collaboration reduces the investment risk in developing new fortified products.

As we strive for improved technology, more efficient public health strategies or more profitable investments, we must not let the Perfect become the enemy of the Good.

## **ISSUE FOR DISCUSSION: WORLDWIDE SUCCESS IN FORTIFICATION**

*Food fortification has to a large extent been responsible for the disappearance of vitamin and mineral deficiencies in Canada, the United States, Switzerland, and the United Kingdom. In most countries, salt is now fortified, contributing to the elimination of iodine deficiency disorders. In Latin America and Caribbean nations, including Brazil, Venezuela, Ecuador, and Grenada, there is large scale fortification of wheat and corn flour with iron and vitamin A. Fortified biscuits and full-fat milk powder fortified with iron are available in Chile. Vitamin A is added to sugar in Guatemala, margarine in the Philippines and cooking oil in India and Pakistan.*

## **ISSUE FOR DISCUSSION: BENEFITS OF COLLABORATION**

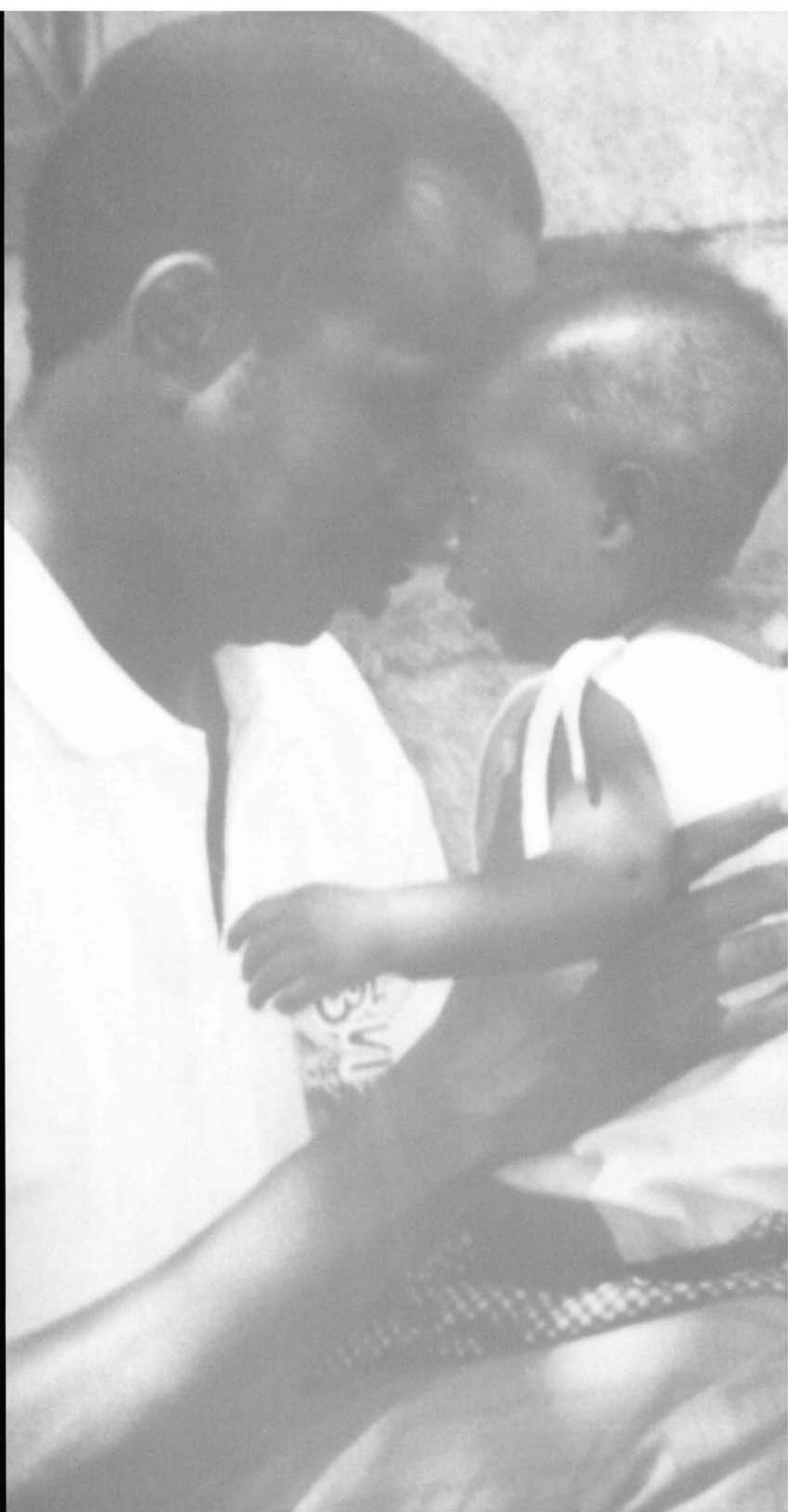
*One work group engaged in extensive brainstorming and generated the following list:*

- *Sharing public health and scientific research with private industry saves time in the development of products and technologies.*
- *Public consultation with industry means legislation, standards and regulations are more realistic, achievable and successful in stimulating more fortified products.*
- *Social marketing can create new customers. One company reported that collaborating with a government campaign resulted in "a new market created overnight."*
- *Government can shoulder some liability and protect private companies from skeptics and opponents of fortification.*
- *The private sector can communicate consumer benefits of specific products, but the public sector can more credibly communicate the health and national development benefits.*
- *For the private companies, collaboration often leads to additional opportunities for business with the public sector.*
- *Employees' perceptions that their company is socially responsible can lead to improved morale and ultimately higher productivity.*
- *Association with government and a socially responsible cause improves a company's image with consumers.*
- *A healthier more productive work force creates consumers with more disposable income, which benefits both those who sell products and those who collect taxes.*

**Collaboration**  
can save both  
time and money.

# KEY ISSUES FOR NATIONAL ACTION

The Forum  
began a  
process of  
building new  
relationships.





**T**he Forum convinced many of the need to create action-oriented linkages at the national level among government, industry, the scientific community, international agencies and NGOs. Many from the public sector expressed a renewed conviction that dialogue with private producers is fundamental to achieving their goals for the sustained elimination of micronutrient malnutrition. Industry executives indicated they are open to the dialogue and exploring ways they can assist. Most participants indicated they intended to set up national and regional dialogues upon their return, through traditional networks as well as through partnerships and alliances forged in Ottawa. The Forum provided an opportunity to begin the process of building the new relationships which will be crucial to developing public-private dialogues at home.

Work groups suggested that once micronutrient malnutrition has been defined as a national public health problem, public officials should move forward quickly to communicate the issue to industry. It may be useful to involve the private sector in early deliberations to establish whether fortification is a viable option, what type of legislation may be appropriate, or which food vehicles offer the most promise. Involving industry as a full partner may be more difficult to achieve when basic decisions are made without its participation. Also industry often has a wealth of information and experience to contribute.

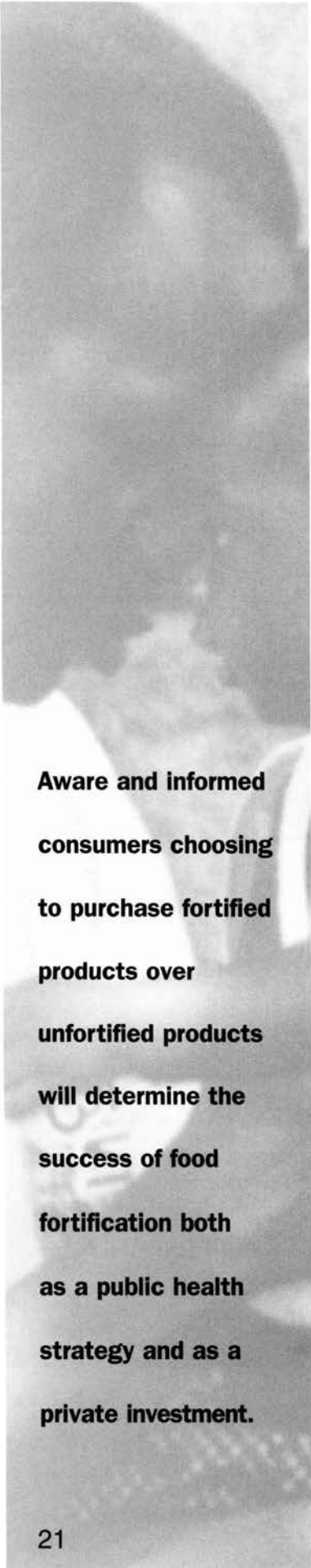
Each nation will determine the most feasible, affordable and effective strategies, within the context of its own economic and social development priorities. Discussions of issues for national action featured a number of recurring themes focusing on both supply and demand of fortified products. Issues to be clarified during national level dialogues include: creating public awareness; developing consumer demand; defining the target population; mounting marketing campaigns; keeping products affordable; and assuring quality. Both public and private sectors have a role to play in addressing these issues.

**Most participants indicated they intended to set up national and regional dialogues upon their return.**

# CREATING PUBLIC AWARENESS

**W**ith so many government and industry professionals unaware of the impact of micronutrient malnutrition, it is not surprising that many potential consumers are also uninformed. Discussion at the Forum affirmed that activities to educate consumers and stimulate demand for fortified foods are a priority for collaborative action.

As long as consumers are unaware that micronutrient malnutrition diminishes the quality of their personal and family life or that fortified foods can promote a healthier and more prosperous future, consumer demand remains untapped, even though benefits are well documented. A potential market exists but it must be developed. An initial investment in public education about micronutrient malnutrition and awareness of fortified foods is required to prepare the market. Preparing the market for the successful introduction of fortified products means fostering recognition among opinion leaders and professionals as well as the general public. These preparatory activities may target the media, politicians, celebrities, scientific and medical associations, industry groups, consumer organizations, education and agriculture professionals.



**Aware and informed consumers choosing to purchase fortified products over unfortified products will determine the success of food fortification both as a public health strategy and as a private investment.**

## **ISSUE FOR DISCUSSION: WHO TAKES THE FIRST STEP?**

*While participants generally agreed that creating demand for specific products is ultimately best left to the private sector, the responsibility for initial public education and awareness remains ambiguous. Some private sector participants felt that investment in public education is a crucial first step by the public sector in order to attract and engage private industry. Others felt that the private sector, with its communications expertise, should participate in public education efforts from the beginning. Several corporate participants described their collaboration with governments and NGOs to raise awareness of teachers and children by developing school curricula and other educational activities. Opportunities to expand these activities with new public partners were explored. The mix of public and private inputs to raise awareness is an important issue to be addressed during national dialogues.*

# RESEARCHING THE MARKET TO DEVELOP CONSUMER DEMAND

Once a foundation of public awareness is prepared, consumer demand for specific products must be created. It was the sense of the Ottawa Forum that collaborative market research is critical to creating demand. Market research defines an approach which characterizes vulnerable populations as active consumers, not simply passive recipients of a public health intervention. It is a tool to develop solutions - the right products, prices and packaging. Market research is critical not only to developing messages that resonate with consumers but also products they will prefer and purchase.

The key to successful collaboration in market research is understanding that each sector has different data requirements. Public research may emphasize prevalence, distribution of micronutrient malnutrition among different populations and typical intake of nutrients. The private sector needs data describing the potential market size, purchasing patterns and consumption habits. However in both public institutions and private companies there is a wealth of resources, data and personnel upon which good market research can be built. Industry participants looked to the public sector for initial socioeconomic and demographic data. The public sector participants generally agreed that industry can make a significant contribution with its expertise and experience in marketing research techniques.

Market research

can become a

tool to enhance

public-private

collaboration,

a tool to translate

the public focus

on the size of the

need into a


private focus on

the size of the

opportunity.

## **ISSUE FOR DISCUSSION: COMPANIES RESPOND TO AWARENESS AND DEMAND**

*In many developed countries a variety of foods are fortified voluntarily by private companies responding to a broad consumer awareness of the benefits of fortification. In the United States, surveys show most adults believe commercial foods should be fortified. As a result, many companies fortify not because of imposed legislative mandates, but because they often perceive nutrition to be a potential marketing asset. For example, fortification can help differentiate a product from the competition. Sometimes foods are fortified not simply to increase sales, but because executives realize that a competitor may tap into this strong public awareness and gain market share.*



**Micronutrients  
for the poor will  
not sell. Emphasis  
needs to be on  
all sectors of the  
population.**

# DEFINING COVERAGE AND MARKET SEGMENTS

In order to have an impact on micronutrient malnutrition as a public health problem, fortified products must be consumed by poorer segments of the population. Therefore the impact of any collaborative food-based approach to micronutrient malnutrition depends on its success among consumers with low purchasing power. However, as a strategic marketing proposition, some participants pointed out that marketing only to the poor will not succeed because new information and new norms often originate among more affluent segments and then are emulated by less affluent groups.

Most participants believed that the purchasing power of more affluent populations already provided private industry sufficient incentive to supply fortified food products. On the other hand, the poorest population segment will not offer any significant profit potential to private industry for the foreseeable future. Although public and private sectors still can collaborate to reach poorer populations, the primary responsibility may fall on the public sector.

The most promising target population for initial public-private collaboration lies between these two segments. Some participants pointed out that, unlike many public health issues, the social and economic impact of micronutrient malnutrition is not limited to the “poorest of the poor.” The economic losses of up to 5% of GDP resulting from inadequate dietary intake can only be reversed by

## **ISSUE FOR DISCUSSION: TARGETING THE BULK OF THE POPULATION**

*Using a hypothetical example, one work group suggested that the most affluent 10% and the least affluent 10% of the population not be initial targets for collaboration. The former has little need for public assistance while the latter offers little opportunity for private investors. The group suggested that the remaining 80% offered many opportunities. In some cases, products already consumed by this large population might be fortified. In other cases, some market niches served by fortified products might be expanded to include lower income consumers. Or new market niches might be identified for existing products. The group concluded that this process of “market segmentation” needs to be undertaken collaboratively on a national level.*

### **ISSUE FOR DISCUSSION: COVERAGE VERSUS SEGMENTATION**

*Clarifying varying perceptions about the issue of “coverage” is fundamental. Public health sector participants expressed a preference for national solutions that cover the population spectrum, as was the case with iodized salt. Private sector participants looked to “segment the market” into niches that offer specific profit-making opportunities. While small niches might offer a profit potential to the private sector, there remains a question of how large a market segment must be in order to have a “national impact” and be a recognized part of the national public health program. Each national dialogue will need to define its own approach to bridging this gap.*

enabling that large proportion of the population that falls between the most and least affluent segments to achieve full mental, physical and productive capacity.

Participants agreed that the size, accessibility and purchasing power of each target population or market niche will define the collaborative arrangements between government and industry. For example, developing a product for a lower-income group will probably entail more public support and involvement than for consumers at the higher end of the income spectrum. Even small niches provide a potential for both private profit and public health impact. Reaching one or two percent of the population in many countries still represents a sufficient number of consumers for a private company to make a profit and for public agencies to progress towards their micronutrient malnutrition elimination goals.

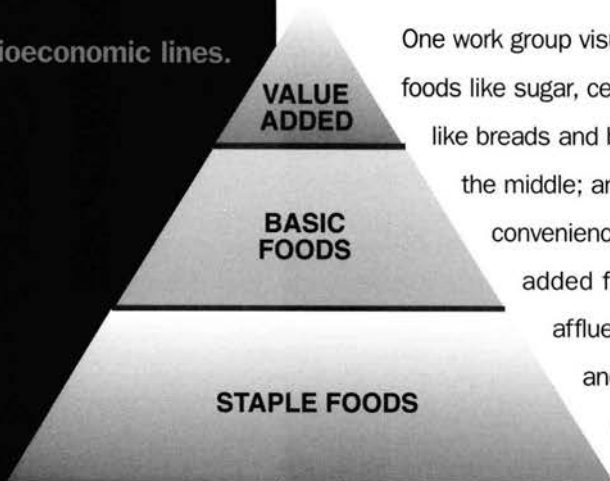
**Micronutrient  
malnutrition  
is not limited  
to the poorest  
of the poor.**



There is no single “magic bullet” to address a nation’s micronutrient malnutrition problem across regional, cultural and socioeconomic lines.

# IDENTIFYING FOOD VEHICLES

Participants stressed that food vehicles for fortification should be selected through a process of careful market research that identifies foods that are consumed by a vast majority of the population, are affordable to those most in need, and respect both political and cultural sensitivities and consumer preferences. Collaborative efforts should concentrate on fortification strategies with the greatest public health impact. A recurring theme was that the focus of public-private collaboration should be on inexpensive staple foods consumed by significant numbers of the population. However, many participants felt that a number of food vehicles can play a role in a comprehensive fortification strategy.



One work group visualized a three-tiered pyramid of food products with staple foods like sugar, cereals and grains, fats and oils at the base; basic foods like breads and biscuits, packaged cereals and flours, and dairy products in the middle; and value-added foods such as condiments, snacks, candies, convenience and ready-to-eat foods at the top. Some felt that value-added foods need not simply be expensive products for the affluent, but also small unit purchases like tomato paste, spices and flavorings. Fortifying less expensive staple foods at the base of the pyramid results in broader dissemination of micronutrients throughout the population, particularly the poor. Since basic and value-added foods are processed from staple commodities, fortifying foods at the base of the pyramid results in fortifying products throughout the food chain. Moreover, individuals are not the only customers for staples. Producers of commodity foods noted that when considering the viability of fortification for their business, sales to companies that produce basic and value-added products are often as important as sales directly to consumers.

The group that presented this model did not mean that only staple foods should be fortified, but that as a policy matter staple foods would have the broadest and most immediate impact. Some participants suggested that while staple foods reach a greater proportion of the population, marketing and technological innovation most often emerge from the development of value-added products. A case history was presented which described the fortification of a high visibility value-added product, stimulating interest in fortification among producers of staple and basic foods.

# MARKETING CAMPAIGNS

**W**ith broad agreement that public awareness and consumer demand are high priorities, discussion turned to marketing and promotion. Public sector participants indicated that social marketing is already an integral part of most national plans to eliminate micronutrient malnutrition. However, the private sector with its experience, expertise and resources often does not have the opportunity to contribute to these social marketing campaigns.

Many noted that collaborative public-private marketing campaigns allow each sector to focus on its unique strengths. Public agencies have the credibility to market the health benefits of fortification while private companies have a better understanding of promoting the consumer benefits and the competitive advantage of their specific products. Private companies excel in creating powerful consumer-oriented messages while public agencies often have special access to media and government distribution channels. Collaborative marketing campaigns offer concrete opportunities for public-private dialogue to move to action. The ground was laid at the Forum for follow-up meetings among public officials and representatives of national and multinational food companies to explore the possibility of joint market research and collaborative marketing campaigns in several Asian and Latin American countries during 1996.


## **IDEAS FOR ACTION: A SEQUENCE OF ROLES**

*One work group elaborated a step-by-step marketing plan, assigning distinct roles and responsibilities to public and private partners:*

- 1. The public sector performs initial educational efforts to raise the general level of public awareness.*
- 2. The private sector takes the lead in research to segment the market and define various opportunities.*
- 3. Public and private sectors collaborate on developing the actual themes and messages .*
- 4. Public and private sectors collaborate on implementing the production and dissemination of the campaign messages.*
- 5. The private sector takes the lead in tracking and fine tuning the campaign.*
- 6. Public and private sectors work to revise messages and build on the results.*
- 7. The public sector evaluates national impact.*

**Marketing  
campaigns allow  
each sector to  
focus on its  
unique strengths.**

# KEEPING PRODUCTS AFFORDABLE



Cost is relative  
to the size of  
the opportunity

Since fortification increases costs, participants affirmed that every effort must be made to keep retail costs to a minimum. If the retail cost of a fortified staple is allowed to rise substantially, poorer populations may purchase less expensive non-fortified products or will buy less of the fortified staple, which might actually contribute to increased malnutrition. On the other hand, consumer prices must be carefully balanced with higher producer costs in order not to discourage supply. Most work groups agreed that cost is only relative to the opportunity. If the size and potential of the market for fortified products is sufficient, increased costs should not discourage private industry.

The key to keeping products affordable is isolating the component parts of the increased costs. These include not simply the cost of the fortificant itself but also technology, training, packaging, distribution and marketing. By determining whether the public or the private sector is in the best position to shoulder each expense, the increased risk and the cost can be shared. For example, government is in the best position to control the price of imported fortificants or technology through tariff exemptions. On the other hand, industry can more efficiently train personnel or develop new quality control procedures. Increased marketing and distribution costs can be segmented and shared by public and private sectors with each contributing according to its strengths.

Participants felt that with strong communication between public and private sectors many purchasing, processing, marketing and distribution activities can be coordinated to achieve efficiencies of scale and bring down the unit cost of fortified products. However, they noted that without good communication there may be unintended effects. For example, publicly subsidized products for low-income groups may discourage private producers from developing a similar product for the same market.

## **ISSUE FOR DISCUSSION: HOW EXPENSIVE IS FORTIFICATION?**

*Some participants presented data suggesting that increased costs of producing fortified products were overstated. The cost of vitamin A fortificant has been estimated to add about about 0.01% to the price of milk or margarine, 0.05% to the price of wheat and about 1.5% to the price of sugar. Others continue to believe that cost is a major barrier.*

## IDEAS FOR ACTION: COLLABORATION TO CONTROL COSTS


*Various work groups offered a number of collaborative strategies to control costs, reduce risk and shield poorer consumers from price increases:*

- **PARALLEL MARKETS:** *A private company supplies higher income consumers with a premium product, while a collaborative private-public enterprise supplies a similar but lower-priced product to a less competitive, low-income market. Savings arise from shared product development costs and efficiencies of scale in larger purchases of raw materials and production runs. These savings can be used to keep the costs of the less expensive product down.*
- **CROSS SUBSIDIZATION:** *The government offers special access to markets that are attractive to industry with an agreement that the private firm will use profits from the product to subsidize the development and marketing of a product targeting lower income consumers. Private companies might consider developing this option with no special public assistance as a "cause-related" marketing strategy.*
- **PROPRIETARY PUBLIC MARKETS:** *When purchasing food from private companies for special feeding programs – schools, low-income groups, refugees – the public sector should specify fortified foods and offer long-term contracts. A long-term guaranteed market lowers the risk to producers interested in developing fortified products for additional markets.*
- **FUNCTIONAL DIVISION:** *Public agencies can invest in education, marketing and advertising activities while private producers bear increased production costs of fortified foods. This lowers initial investment and risk to private producers.*
- **GOVERNMENT ENDORSEMENTS:** *Government approved logos, endorsements and health claims reduce the private marketing burden and give a competitive edge to fortified products.*
- **PUBLIC SECTOR AS FORTIFICANT DISTRIBUTOR:** *A government agency purchases fortificant duty free and at preferred bulk price. The agency then distributes the fortificant at or below cost to producers.*
- **PREFERRED ACCESS TO PUBLIC INFRASTRUCTURE:** *Fortified products receive preferred treatment through government transportation and distribution networks, reducing risk and distribution costs. Producers of fortified products can be more efficient, giving them an advantage over producers of non-fortified products.*

Many types of fortification have very little effect on the overall cost of the product, but this is not true in all cases.



# ASSURING QUALITY



Quality  
assurance is  
a partnership  
effort.

**B**oth public and private participants asserted the need to develop and improve quality assurance systems, standardize regulations, and strengthen enforcement. Public sector participants noted that national micronutrient elimination goals often outstrip resources for assuring quality. Without effective quality assurance, program monitoring and evaluation are difficult. Private sector participants stated that inconsistent regulations and redundant testing procedures add expense to introducing proven technologies or fortified products to new markets. Clearly stated and strictly enforced standards requiring a minimum of interpretation would encourage producers to enter new markets with fortified products.

There was general agreement that quality assurance and enforcement of standards are not solely the responsibility of the public sector. Quality assurance is a partnership effort involving raw material suppliers, importers, processors, traders, merchants and consumers. It includes the entire distribution chain extending from national and provincial structures to local governments and retailers. While national standards and legal sanctions are set by government, industry should consider establishing its own guidelines for best manufacturing and management practices. Some felt that industry, with its wide experience in ensuring quality food products, should take an advocacy role to educate government ministries about the importance of making investments in quality assurance an integral part of national micronutrient malnutrition elimination programs.

A priority task for national dialogue will be defining complementary public and private roles in developing legislation and regulations, providing resources for laboratories, establishing quality assurance methodologies at the producer and retail levels, and training technical personnel. Producers of basic and value-added foods from a number of countries indicated they have effective quality assurance mechanisms in place to test raw materials that their company purchases. These might be a starting point for developing simple and low cost methodologies for quality assurance in the public arena. A number of participants suggested that it might be effective to pool resources for laboratories and technical personnel on a regional basis.



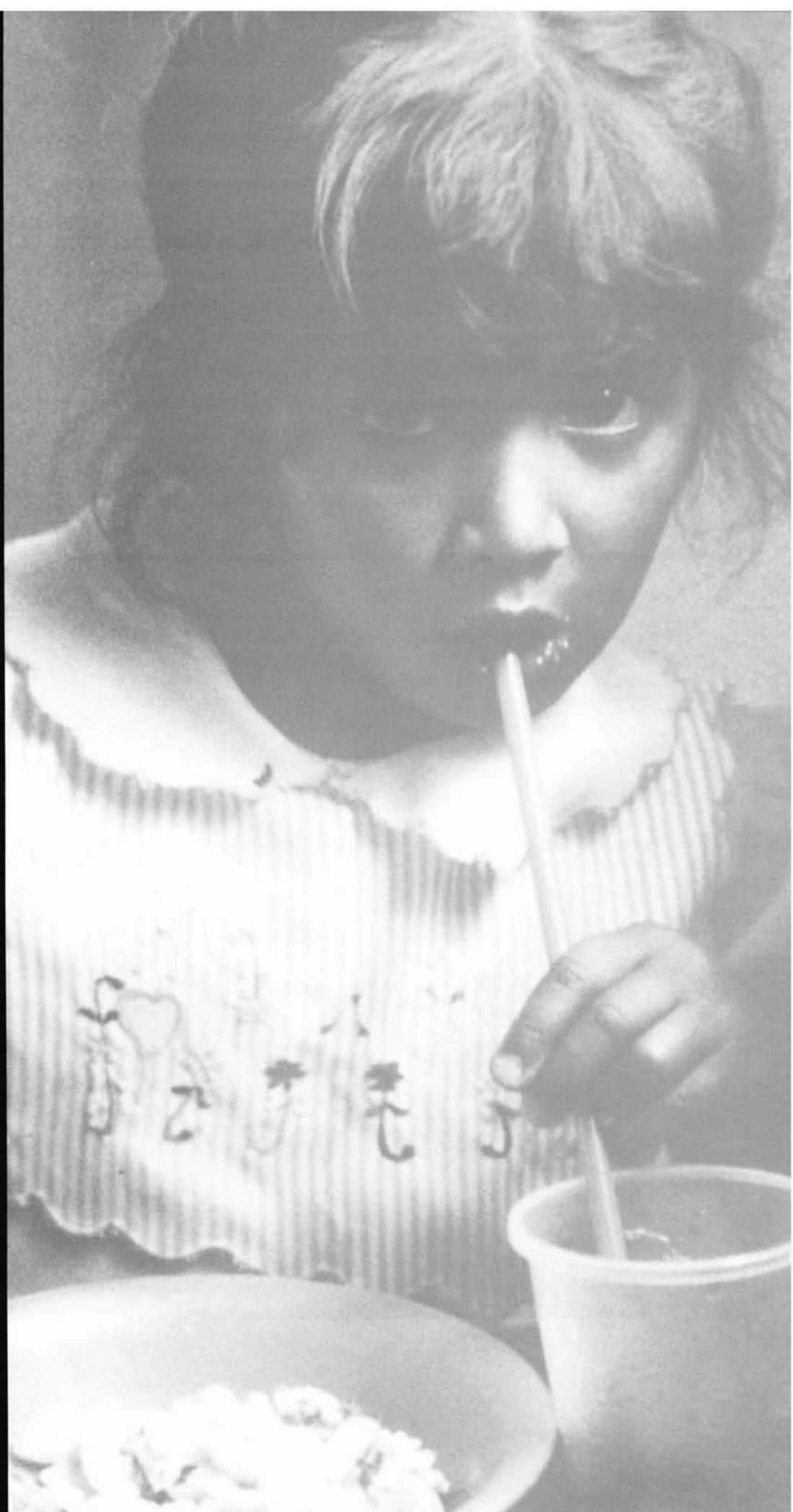
### **IDEAS FOR ACTION: SHARING METHODS AND PROCEDURES**

*During the course of work group discussions many in the private sector indicated a willingness to share their analytical methodologies with the public sector and assist in the technical training of public sector personnel. Several work groups felt that within the context of a collaborative process, industry might take the lead in developing standard operating procedures for quality assurance. These can be agreed upon by both private and public sectors and jointly monitored, with the private sector taking main responsibility at the factory level, and the public sector taking main responsibility at the retail level.*



# APPROACHES TO COLLABORATION

Each sector  
plays a critical  
role in achieving  
and sustaining  
success.



In collaborative initiatives to eliminate micronutrient malnutrition, each sector has a specific role to play and there are certain steps to be taken in the process of building collaboration. Participants felt that a catalyst might be needed to bring diverse national interests, organizations and individuals together to consider needs and plan collaborative action. Depending on national circumstances, an NGO, a government agency, an international organization, a private sector trade association or a combination of those sectors can help explain the role of the private sector to government and the need for industry participation to the private sector. UNICEF performed this function in campaigns to eliminate iodine deficiency disorders by building coalitions of government and private producers to iodize national salt supplies. In the case of the Ottawa Forum, the catalysts were the Micronutrient Initiative and PAMM, with dialogue facilitation provided by The Keystone Center and financial support from the World Bank, MI, USAID, UNICEF, UNDP and ILSI.

### **IDEAS FOR ACTION: DOING OUR HOMEWORK**

*Catalysts can do more than simply bringing parties to the table. To stimulate new thinking, it is often useful to consolidate existing data, package old information in new ways, or develop new information if resources are available. Organizers of the Ottawa Forum conducted a survey of potential public and private partners to serve as a starting point for dialogue. At the Forum participants suggested a number of other activities to stimulate national level discussions:*

- *Simple, clear analysis of the national micronutrient situation*
- *Documentation of the impact and benefits of micronutrient campaigns*
- *Calculations of the national payback for investment in fortification*
- *Preliminary market sizing information or consumer profiles*
- *National food industry sector review*
- *Survey of public-private attitudes and suggestions for action*
- *Synthesis of public and private attitudes to date*

**In many countries, those with the knowledge and wherewithal to pursue fortification and collaboration often meet as friends, but not as professional colleagues to solve these problems. There is often a need for a catalyst to bring these people together as organizations.**



**Government  
needs to create a  
fortification-friendly  
environment.**

# ROLES AND RESPONSIBILITIES: NATIONAL GOVERNMENT

Participants underscored the need to create and sustain political will at all levels of government to eliminate micronutrient malnutrition as a public health problem. Going beyond traditional roles in advocacy, communication, education, monitoring and quality assurance, public officials must develop new kinds of relationships with the private sector. Participants felt it was crucial that the public sector should not attempt to engineer these new relationships but rather address the private sector as a key partner in fortification strategies. To attract private sector partnership governments should establish a clear entry point for collaborative efforts.

Although some private sector participants expressed reservations about legislating supply and demand, others felt that government regulation and public incentives are needed to stimulate consumer demand and private investment in fortification. Both public and private sector participants agreed that consultation during the legislative process will help ensure that laws and regulations are based on realistic goals which recognize the technical and fiscal realities of the national food industry. Dialogue with industry is key to creating an enabling environment where food companies can compete on quality, on price and on innovation.

Forum participants stated that government must articulate clear policies and a unified decision-making process across all government ministries. They noted that public policies often send mixed messages to private producers. In many countries broad economic and development policies tend to undercut the stated commitment to eliminate micronutrient malnutrition. For example, government price controls on food products may discourage fortification efforts because producers are unable to recoup their added costs. Tariffs on imported food technology and fortificant mixes raise the expense of fortifying to producers and retail cost to consumers. Some participants pointed out that efforts to support small business as an integral part of the national economy often tend to undercut the ability of larger producers to more efficiently produce and market fortified food products at a lower cost.

## **IDEAS FOR ACTION: INCENTIVES FOR PRODUCERS**

*Work groups proposed a number of actions government might undertake to provide incentives for private producers:*

- *Exemptions from sales and value-added tax*
- *Assisting with technology transfer and fortificant costs by tariff exemption*
- *Preferred access to public transport*
- *Specifying fortification in bids for government proprietary markets*
- *Providing public logos, endorsements, and supporting health claims*
- *Initiating activities to prepare the market through education and awareness campaigns.*

**There is a need for a uniform approach at the national level with logistical support provided by various departments.**



# PRIVATE FOOD COMPANIES

“I plan to keep collaborating with the public sector and government organizations until the final implementation of fortification.”

Both public and private participants felt that the food industry should not be a passive partner in micronutrient malnutrition elimination efforts, viewing them as a public issue and reacting only when specifically asked for assistance. Collaboration involves both sides taking ownership of the issue and searching for solutions together. Advocacy to eliminate micronutrient malnutrition cannot simply be targeted to industry but must also originate from industry.

A more activist stance begins with clear communication to the public sector that industry goals go beyond short-term profit and include the long-term health, productivity and purchasing power of its employees as well as current and potential customers. The food industry must communicate its concern, goodwill and readiness to collaborate. To begin a dialogue, the food industry must advocate for the enabling environment it needs to contribute to the effort: market data, a level playing field, focused incentives and consistently enforced quality assurance.

Many nationally based food companies indicated that a major barrier to their developing products to address micronutrient malnutrition was lack of access to the appropriate technology. Others, particularly multinationals, insisted that basic fortification technology was neither prohibitively complex nor expensive. Several indicated their willingness to make patents and technical training available. All agreed that international private sector channels for technology transfer could be established. Informal evaluations conducted as the Forum came to a close revealed that several firms had already initiated discussions on transferring existing patents and technology. Dialogues at the national level should seek to provide additional opportunities for this kind of interchange.

There was general agreement that food companies bring a realistic, problem-solving approach to the public-private dialogue. The fundamental role of private industry is to do what it does best: create products and technologies, develop marketing and distribution mechanisms, and compete on quality and excellence. The challenge of collaboration is to channel this expertise in ways that support national priorities to eliminate micronutrient malnutrition.

## **IDEAS FOR ACTION: INDUSTRY INITIATIVES**

*Work groups proposed a number of ways for industry to contribute to collaborative activities:*

- *Clearly advocate industry needs to government*
- *Assist public sector in assessment of national needs*
- *Participate in education, research and health assessment*
- *Assist in market research and promotional materials*
- *Develop business-to-business channels to transfer technology*
- *Develop joint ventures among fortificant and pre-mix suppliers and food processors*
- *Provide training and methodologies for quality assurance programs*
- *Create "Industry Best Practices" code for production and marketing of fortified products*
- *Develop special investment criteria for fortified products*
- *Collaborate to expand current market niches for fortified foods*



Industry should  
ask government  
what it can  
do to help.

# INTERNATIONAL AGENCIES AND NGOs

**M**any participants praised the crucial role of international agencies and NGOs in providing technical support and strategic funding. The food industry looks to this sector to compile credible nutritional, epidemiological and economic data. Participants recommended that international organizations assist with national assessments to define the micronutrient malnutrition problem and provide baseline measurements. Many saw a critical role for international agencies in helping governments establish effective national standards and quality assurance. Surveys of the national food sector and an assessment of the public and private resources potentially available to the collaborative effort were suggested as ways to stimulate a national public-private dialogue.

Participants believed international organizations and NGOs could be catalysts, challenging public and private sectors to interact. Many felt that agencies need to start with open and direct consultations with the private sector on a national and multinational level in order to bridge the communication gap between government and industry.

## **IDEAS FOR ACTION: INTERNATIONAL ASSISTANCE FOR NATIONAL EFFORTS**

*Work groups suggested international organizations and NGOs undertake a range of specific investments to assist national collaborative efforts:*

- *Technical assistance to better assess the achievements of fortification programs*
- *Food industry sector reviews, i.e., assessing national and regional milling capacity*
- *Publication of case histories documenting successful collaboration efforts*
- *Dissemination of research documenting the economic impact of micronutrient malnutrition and communicating the costs and benefits associated with food fortification*
- *Subsidy for the initial cost of the fortificant and technology*
- *An international clearinghouse for fortification information and technology*
- *Support for national groups in mounting dialogue meetings and collaborative pilot projects*

## **ISSUES FOR DISCUSSION: INVOLVING CODEX**

*Participants noted that the regional Codex organization and many of its specific committees, including Grain and Cereal Products, Milk and Milk Products, Fats and Oils, and Food Additives and Contaminants, are sympathetic to the need for change and advocate more rapid development of guidelines that enable fortification activities. Many suggested direct consultation between Codex and national bodies on food fortification issues.*

Industry and government officials consistently suggested a role for the Codex Alimentarius Commission in developing uniform, scientifically-based standards for fortified foods and ingredient approvals. Governments felt Codex could provide guidance in establishing safe and efficacious national standards. Industry executives believe Codex standards could assist in creating an international environment in which private companies could develop fortified foods and transfer technology to new markets with confidence that their products would be acceptable to both government regulators and consumers. Many felt Codex guidelines might help governments set national regulations which would allow flexibility and innovation, and enable the development of a range of fortified products to meet consumer needs.

**There is a  
potential synergy  
when a global  
campaign assists  
individual countries.**

# STRATEGIC OPTIONS FOR NATIONAL ACTION

Participants felt it was important to proceed strategically with a business-like plan which starts by acquiring data and assessing resources, then moves to gain commitment from industry and government leaders to work together, and finally proceeds to implementation of collaborative action. While national circumstances vary and there can be no global template for national action, several work groups described a sequence of steps to initiate, develop and sustain a national public-private dialogue. These are summarized and synthesized as follows:

- **Define the problem**

Develop existing data to clearly define the national micronutrient malnutrition problem. Use the information to convince professionals in all sectors, both public and private, that micronutrient malnutrition has a negative impact on their various goals and activities.

- **Identify support and resources**

Resources, energy and expertise are all needed to develop a catalytic agent as well as generate and package relevant information that brings the public and private sectors to the table.

- **Engage everyone who can have a potential impact**

Public-private dialogue opens a new chapter in addressing the micronutrient malnutrition problem. The organizers must discard old mental models, approach the problem objectively, and reach out with an open mind to all those who might have an impact.

- **Get all relevant parties to commit to a common overall objective**

The fundamental task of public-private dialogue is to get agreement from all the relevant players – government, industry, NGOs and development assistance agencies – to “keep their eyes on the prize” and stay focused on the common objective of eliminating micronutrient malnutrition.

- **Identify target populations and food vehicles**

Public and private partners need to determine which populations will be targeted with what kinds of fortified products. Get consensus that delivery of specific micronutrient rich products to specific populations is the major criterion by which to measure success. The challenge is to segment the market and match each target group with an appropriate food product.





- **Identify and build on existing public and private resources**

Survey private food markets as well as public resources and infrastructure. Build on existing distribution systems, ongoing communications strategies, national nutritional plans, and government markets such as school feeding programs.

- **Get agreement on an analysis of the problem and priority actions**

Get public-private consensus on what prevents target populations' access to micronutrient rich foods and how these barriers are best reduced using available resources.

- **Develop a work plan**

Develop an overall strategy with specific goals and activities. Make certain objectives are realistic, based on real commitments, and can be monitored and evaluated. It may help to begin with pilot projects that can demonstrate impact.

- **Define government and industry roles**

Clarify which government ministries will be involved and where leadership resides. Establish responsibilities and entry points for industry within each ministry. For each food producing company, outline specific actions to be taken and indicate the counterpart ministry.

- **Elaborate quality assurance mechanisms**

Work out quality assurance and enforcement systems as a collaborative enterprise between government and industry. Integrate quality assurance activities into marketing and training components of the overall strategy.

- **Continue ongoing dialogue**

To sustain and expand long-term collaborative commitments, meetings should be convened regularly to review activities and establish new needs. Once created, a long-term action plan needs to be maintained and modified.

# CLOSING REMARKS

We believe not only that the time has come for this kind of diverse conversation, but indeed that the time is overdue.

This is an important forum, an event that I dare say would not have happened even just five years ago. Let me just say briefly why I think all of the sponsors of this meeting and certainly we in Canada—CIDA (the Canadian International Development Agency) and IDRC (the International Development Research Centre)—have no doubt about this statement. We are pleased to be associated with this Forum on Food Fortification, both as sponsors and as active organizers, because we believe not only that the time has come for this kind of diverse conversation, but indeed that the time is overdue.

We are driven today by a new set of factors, massive factors, that are changing our landscape globally, nationally, and at the level of our communities:

First, the capacity of government to do the things it has done in most of the post-war era is changing in significant and dramatic ways. Our generation is witnessing a power shift away from big government doing big things for entire populations. And with this shift, we are seeing a reduction in the willingness of populations to finance and provide resources for big government. Concurrently, there is also a withdrawal of confidence in the instruments of government.

The second factor that I think strikes all of us on a daily basis is the inequitable distribution of wealth. Although wealth is being produced today as never before, there is a problem in its distribution, of tapping into its availability, and channelling it to improve economic and social well-being of people around the world. In fact, according to some business leaders, the big concern now is that wealth will become so concentrated that we will see a decline in the ability of populations to consume. If this happens, we will face a problem of declining demand even though wealth is available as never before.

Third, the factor that is driving wealth has shifted. It is knowledge, including technology, which differentiates those who have and those who have not, both within and between societies. Approximately 95 percent of all the research and development that is carried out in the world is done in only 14 countries, countries in what we call the “industrial world” or the “developed world.” That means that a mere five percent of the generation of knowledge in an organized way or in a “modern way” is done in parts of the world which contain something like 95 percent of the world’s population, certainly 95 percent of its active labour force. Given that such a massive distortion occurs in connection with knowledge generation as part of our global landscape, the enormous challenge lies in having the right kind of knowledge made available, produced locally and applied locally.

There is a fourth factor which I think illuminates both this discussion and all the discussions held during the Forum, and that is the emergence of new actors. These are frequently referred to as “civil society.” The existence of civil society is

not new—it has been around for millennia. What is different today however is that there is an explosive growth of organizations. In country after country, there is a massive increase in the numbers as we have never seen—certainly in the last 250 or 300 years—of associations and organizations which are voluntary and non-voluntary alike, which are within civil society. And these groups are taking on new and expanding roles. I heard from some of the speakers just a few moments ago about the importance of bringing in local actors at the local level. I assume that we are talking about civil society.

In an extremely thought provoking article, Lester Salamon compares the growth of civil society in our time to the growth of the nation state some 200 years ago. This draws our attention to the fact that actions that might have been taken ten or twenty years ago by agencies and governments, North and South alike, will need to find new and expanded partnerships because of the changing horizon in which we find our world today.

If we are to succeed, whether in eliminating micronutrient malnutrition or indeed as we confront most other human development challenges, the principal task before us is to mobilize and direct new arrangements, new partnerships, new coalitions which, because the structures were different before, were not necessary, or certainly not as necessary, in times past. The old ways of doing things are simply not likely to suffice.

This Forum has been an attempt to bring a new diversity, a new richness and a new sharing of knowledge—from North, from South, from institutions, from the corporate world, from civil society actors—to a subject that is immeasurably important and one of the most fundamental subjects that defines human need, human potential and human development. That of course is basic and adequate nutrition. This, I would suggest to you, is something that would not have happened five years ago.

The point here is that the resources of the institutions called development assistance institutions are, in the context in which we find ourselves in the mid-1990s, clearly insufficient to address the magnitude of the problems that we confront. The realization today is that exclusive approaches such as I described are not going to work. They are not adequate. I hope what we have opened up in this International Forum on Food Fortification are first avenues of what will turn out to be extended conversations and explorations as to how new arrangements, new coalitions, new partnerships can be found and expanded to reflect the realities of the time we live in, in order to confront both the problem of micronutrient malnutrition and from that, one would hope and expect, many other problems as well.

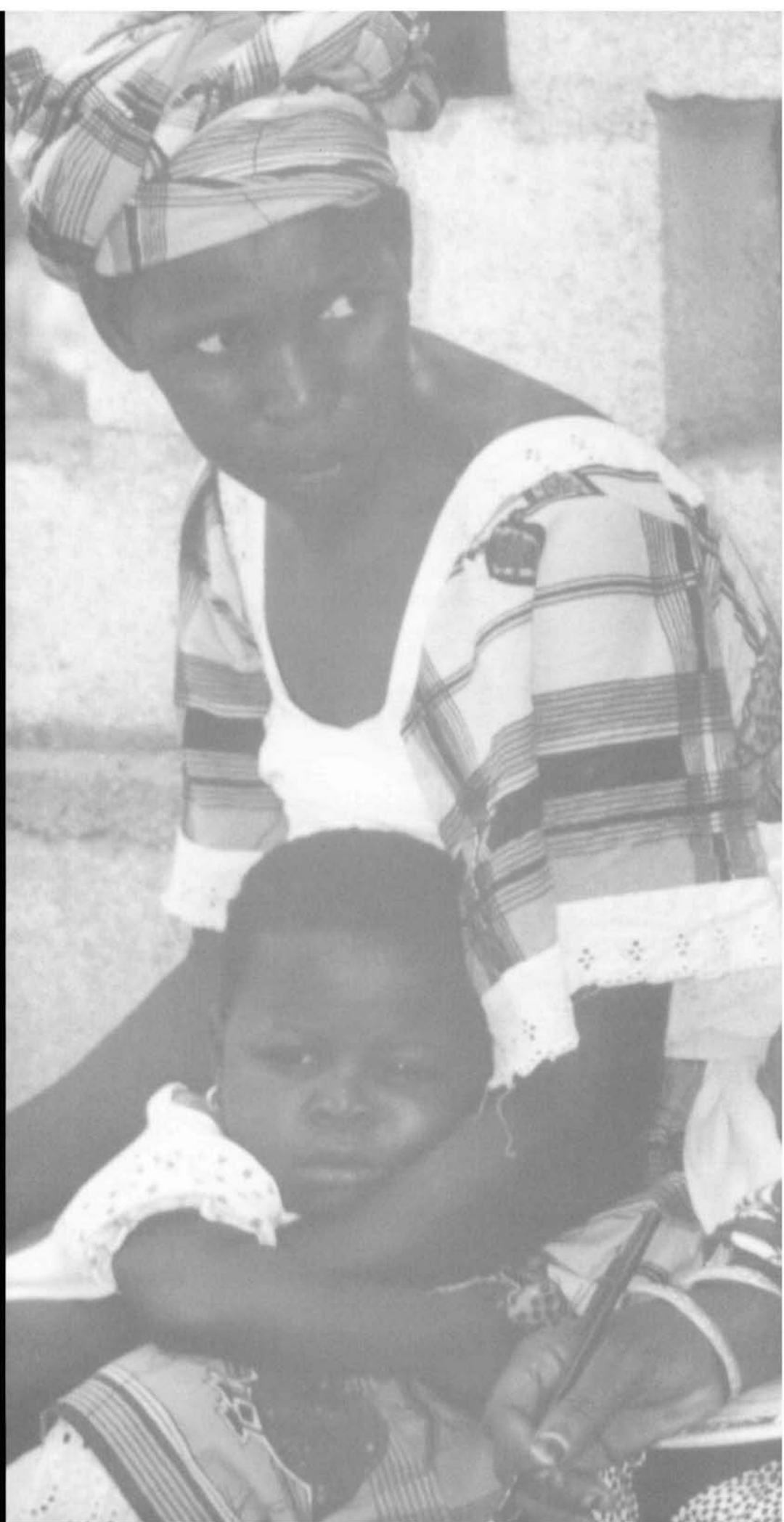
— **Dr. Keith Bezanson**

President, International Development Research Centre, Canada



# APPENDIX

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# SUMMARY OF PUBLIC AND PRIVATE SECTOR SURVEYS

In preparation for the dialogue, 200 executives and public officials in Bangladesh, Bolivia, Brazil, Egypt, Ghana, India, Indonesia, Mexico, Pakistan, the Philippines, South Africa, and Zimbabwe, as well as U.S. or Europe-based representatives from international development agencies, multinational corporations and academia, responded to a survey. Results provide everyone a clear view of what the “other side” thought on a number of key issues —and allows the dialogue to begin on common ground. The top points from the survey appear below.

## I. THE SECTORS NEED TO SPEAK TO EACH OTHER

While acknowledging the critical role of the food industry, the public sector, which identified the micronutrient malnutrition problem, has not communicated enough with the private sector. Half the private sector reported no contact from public officials about micronutrient issues — and only slightly more than this number, 60% of the public sector, said they had tried to explain their goals to industry. Despite this communications gap, the survey indicated that such communication is effective and desirable. Among industry managers who were contacted by public officials, 80% reported it made a difference in their thinking about the problem; 87% said they would be interested in regular communications with the public sector; and 81% said they would be receptive to collaboration with the public sector - including sharing technology and marketing information.

## 2. NOW THAT WE'RE TALKING, WE NEED TO TALK ABOUT OUR DIFFERING PRIORITIES.

The survey emphasized areas where the private and public sectors currently agree, where different definitions or performance indicators lead to different expectations, and where the two sectors are widely divergent.

Heading the top of the list for agreement were:

### ■ **Increasing Public Awareness and Creating Consumer Demand —**

Both the public and private sectors saw the value of working together on public information and demand creation campaigns to prepare the market for fortified foods. This would help the private sector get into the market, and ensure that the public used these foods appropriately once they were there.

- **Professional Communications** – All respondents wanted to increase the flow of scientific, nutritional, technical and marketing information —both ways. Much food fortification technology is patented by the private sector, but lying fallow, when it could be easily applied to simple products, such as flour, sugar or oil, in countries where these patents do not apply. Licensing agreements or seminars to share information were seen as ways to get over the “fear of trying,” particularly in the area of iron fortification.



# SUMMARY CONT.

- **Mechanisms for Collaboration** — Respondents suggest there are no established rules of engagement between public and private sectors, and that roles need to be defined, clarified and validated. The dialogue process, which would be repeated at the national level, is intended to provide the mechanism to plan collaborative education and awareness activities, develop professional relationships, and build organizational linkages.

The middle tier of priorities suggest areas where public and private sectors might listen and learn from each other's points of view. For example,

- **Market Research** is tenth on the public sector list and third on the private sector list. This category refers to market research, market sizing, consumer profiles and epidemiology, (the population based research tool of public health). In public health nutrition, marketers are often brought in at the end of a process and asked to promote products or ideas developed without their input. The food industry looks to a fuller marketing mix of product development, pricing and packaging as well as promotion. The private sector views marketing as equivalent to developing the solution - not just a way to deliver it. The public sector might consider this viewpoint as beneficial to serving the public and bring marketing in much earlier in the process.
- **Long Term Growth Opportunities** —The public sector sees fortified foods as an opportunity while the private sector is more circumspect. The difference in optimism might flow from the priority placed on marketing, as described above. Most business respondents said they were reluctant to take risks and judge opportunities without first having seen "the numbers." Perhaps, as public and private sectors begin to understand each other's approach to risk taking, market research might become a tool for collaboration - a tool to translate the public sector focus on the size of the need into the private sector's need to emphasize the size of the opportunity.
- **The Role of Regulation**—Is seen differently through public or private sector eyes. In answering the question "What factors prompted your organization to implement food related regulations, standards or other codes of conduct," public sector respondents mentioned health, safety, quality assurance and social responsibility. The private sector saw a need for policies that provide an environment where companies wishing to develop safe, high quality products can compete , innovate and develop a growing market for fortified food products. Public sector respondents saw only their policing role, and not their enabling role, in bringing more fortified foods to market—but both sectors valued regulations.

# SUMMARY CONT.

Perhaps the most surprising part of the survey appears in the areas of greatest divergence:

- **The Public Sector is more worried about the cost of food fortification than the Private Sector** — 75% of public sector respondents were gloomy about the economic environment for fortification. On the other hand, half of the private sector reported achieving economic benefits in fortification, while half said they saw some constraints. This split in perception is, first, related to actual experience. Second, the public sector might be narrowing its focus on the “poorest of the poor,” in contrast to the private sector’s view of a spectrum of niche markets of opportunity. Might a dialogue work to align these contrasting points of view? It’s possible that public-private collaboration in market research has the potential to define new products, new pricing and distribution mechanisms which create new niches of opportunity for the food products among low income consumers. A public-private collaboration can focus on the development of what we might call a public health market. Again, a first step is beginning our collaborative efforts early on in the market research process.
- **Public Bureaucracy and Business Motives** — Misperceptions or real barriers? One of the private sector’s top priorities for discussion was their view that the public sector lacked a “results orientation, clear goals, decisiveness and follow-up.” To some extent, these comments reflected the misperception that the public sector wanted to place limitations on which foods are appropriate to fortify and which consumer groups are appropriate to target. However, about two thirds of our public sector respondents feel the field is wide open with respect to foods to fortify and almost 80% feel that all consumers should have access to these products. Furthermore, the survey responses indicated that the public sector seems to be aware of its own limitations. When responding to a question on barriers to fortification, one third of our public sector respondents commented on politics, bureaucracy and legal issues as barriers. Likewise, many private sector respondents were aware of their own limitations, commenting that the rigors of profit-making enterprises and the stress on short-term return often restrict involvement in what they consider to be worthwhile social enterprises.

The surveys provide a good starting point to a fruitful dialogue between the public and private sectors, beginning with self-awareness and recognition of each other’s limitations. In order to go forward, it makes sense to begin work on concrete strategies and action plans in areas where there already is general agreement. Next, where there seem to be diverging perceptions on priority issues, we need to listen and learn from each other. Finally, on issues where public and private goals diverge entirely, we are left to recognize that there are limits to our ability to collaborate and we need to agree not to let our differences prevent us from working together. Both public and private sectors have a role to play in the global elimination of micronutrient malnutrition. As we jointly take the risks involved in collaboration we can all look forward to the promise of sharing in a truly great reward.

ROSTER OF  

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PARTICIPANTS



# ROSTER OF PARTICIPANTS

## ALPHABETICALLY BY COUNTRY

Dr. Zafrullah Chowdhury  
Project Coordinator  
Gonoshasthaya Kendra  
Nayarhat, Dhaka-1350  
BANGLADESH  
Telephone 880-2-500720/500406  
Fax 880-2-863567/833182

Dr. Eric LaRoche  
Chief of Health and Nutrition Section  
UNICEF  
GPO Box 58, Dhaka  
BANGLADESH  
Telephone 880-2-86905660  
Fax 880-2-863678  
Email hn.unicef@driktap.tool.nl

Fazlul Hoque Khan  
General Manager  
Noorani Flour Mills Ltd.  
277 Tejgaon Industrial Area  
Dhaka - 1208  
BANGLADESH  
Telephone 60-58-00, 60-56-00  
Fax 880-2-887145

Mr. Mohammed Suruzzaman  
Director & Secretary  
Dhaka Vegetable Oil Industries, Ltd.  
10 Kazi Nazrul Islam Avenue  
Karwan Bazar  
Dhaka - 1215  
BANGLADESH  
Telephone  
880-2-814953/810782/810783  
Fax: 880-2-814536/818282

Dr. Juan Carlos Arraya  
Responsable Vigilancia Epidemiologia  
UPAN-Programa Micronutrients  
Ministerio de Desarrollo Humano  
Secretaria Nacional de Salud  
Escuela Nacional de Salud  
Calle Cap. Ravelo No. 2199  
La Paz, BOLIVIA  
Telephone/Fax: 591-2-379-891

Nazario Canaza Ajhuacho  
Ingeniero Quimico  
Planizal (Productos Yodisal)  
Calle Cochabamba, Esq. Velasco Galvarro  
No. 5698-Ororo  
BOLIVIA  
Telephone 591-52-61451  
Fax 591-52-61451

Ing. Gustavo Barbery Paz  
Presidente Ejecutivo  
Grupo Empresarial UNAGRO  
Moldes 200, Casilla 1951  
Santa Cruz  
BOLIVIA  
Telephone 591-33-362000  
Fax 591-33-368800

Dr. Agide Gorgatti  
Senior Food Technologist  
Institute of Food Technology (ITAL)  
Rua Guilherme Da Silva, 397  
Apt 61 Cambui  
13.025-070 Campinas, SP  
BRAZIL  
Telephone 55-192-55-1684  
Fax 55-192-41-8445

Mr. Alberto Nilson  
Human Nutrition Manager, Latin America  
Produtos Roche Quimicos E  
Farmaceuticos S/A.  
Av. Engo Billings, 1729 - 05321-900  
Sao Paulo, BRAZIL  
Telephone 55-11-819-4519  
Fax 55-11-819-4980

Dr. Leonor Maria Pacheco Santos  
Consultative Council of the National  
Institute of Food and Nutrition  
Escola de Nutricao Ufba  
Rua Araujo Pinho 32  
Canela-40110-150  
Salvador , BRAZIL  
Fax 55-7-245-0587/237-5856

Juarez Fairon Rech  
Director General  
Fortitech South America, Ltda.  
Rua Euclides Viera 609  
PQ SAO Quirino  
13088-280 Campinas SP  
BRAZIL  
Telephone 55-192-52-56-46  
Fax 55-192-55-3007

Tim Stone  
Executive Officer  
Path Canada  
170 Laurier Avenue West  
Suite 902  
Ottawa , Ontario K1P 5V5  
CANADA  
Telephone 613-233-0623  
Fax 613-230-8401

Bill Edwardson  
Head, Food Links  
IDRC  
P.O. Box 8500  
250 Albert Street  
Ottawa, Ontario K1G 3H9  
CANADA  
Telephone 613-236-6163 ext 2215  
Fax 613-567-7749

Dr. George Beaton  
Professor Emeritus  
University of Toronto/GHB Consulting  
9 Silverview Drive  
Willowdale, Ontario M2M 2B2  
CANADA  
Telephone 416-221-7409  
Fax 416-221-8563

# PARTICIPANTS CONT.

Dr. Norman Tape  
Director Food Research (Retired)  
Agriculture Canada  
426 Halldon Place  
Ottawa, Ontario K2B 7B8  
CANADA  
Telephone 613-596-1424  
Fax 613-761-9730

Mr. Ravi Philar  
President  
ProMarket International  
1226A Wellington Street  
Ottawa, Ontario K1Y 3A1  
CANADA  
Telephone 613-729-6030  
Fax 614-729-3752

Dr. David L. Yeung  
Director-Corporate Nutrition  
H.J. Heinz Co.  
5700 Yonge Street, Suite 2100  
North York, Ontario M2M 4K6  
CANADA  
Telephone 416-226-7504  
Fax 416-226-5064

Dr. Sonya Rabeneck  
Senior Specialist (Nutrition)  
Canadian International  
Development Agency  
9th floor, Room 944  
200 Promenade du Portage  
Hull, Quebec K1A 0G4  
CANADA  
Telephone 819-994-3904  
Fax 819-953-5348

Dr. Margaret C. Cheney  
Chief, Nutrition Evaluation Division  
Bureau of Nutritional Sciences  
Health Canada  
Sir Frederick Banting Building 2203A  
Tunney's Pasture  
Ottawa, Ontario K1A 0L2  
CANADA  
Telephone 613-957-0352  
Fax 613-941-6636

Dr. Rodrigo Fierro-Benitez  
National Director  
Integrated National  
Program in Micronutrients  
Ministry of Health  
FASBASE Project-  
Micronutrient Program  
Buenos Aires No. 340 y  
Manuel Larrera  
Quito, ECUADOR  
Telephone  
593-2-544-597/242-677/543-091  
Fax 593-2-567-848

Dr. Marco Alvarez  
Instituto de Investigaciones para el  
Desarrollo de la Salud  
Buenos Aires 340 y Juan Larrera  
Quito, ECUADOR  
Telephone 593-2-544-597 or 569-243  
Fax 593-2-544-597 or 562-301

Dr. Carlos Samayoa  
Intercountry Advisor in Nutrition  
for the Andean Countries  
Pan American Health Organization/  
World Health Organization  
P.O. Box 17-07-8982  
San Javier 295 y  
Av. Francisco de Orellana  
Quito, ECUADOR  
Telephone  
593-2-528-405/236-558/544-642  
Fax 593-2-502-830

Dr. Raul Lopez-Paredes  
Nutrition Consultant  
FASBASE Project  
Buenos Aires 340 y  
Manuel Larrera Street  
Quito, ECUADOR  
Telephone 593-2-543-091  
Fax 593-2-561-491

Dr. Wafaa Moussa  
Consultant, Former Director  
National Nutrition Institute  
16 Kasr El Aini Street  
Cairo, EGYPT  
Telephone 20-2-3646413/3643522  
Fax 20-2-3435224

Dr. Farouk Mohamed Shaheen  
Director,  
Nutrition Institute  
16 Kasr El Aini Street  
Cairo, EGYPT  
Telephone 20-2-364-6413/364-3522  
Fax 20-2-364-7476

Mr. Mamdouk Abd Allah Mobasher  
Head, South Cairo Mills  
366 King Faisal Street  
Giza, EGYPT  
Telephone 20-2-534411-869816  
Fax 20-2-534411

Dr. Nagwa Abd El-Latif El-Ashry  
MCH Specialist  
Ministry of Health  
General Department for MCH Services  
Magless El-Shaah Street  
Cairo, EGYPT  
Telephone 20-2-3557156  
Fax 20-2-3564649



Dr. Hosni Tamman, Undersecretary  
Primary Health Care  
c/o UNICEF - ECO  
8 Adnan Sekey Street  
Dokki, Giza, EGYPT  
Telephone 20-2-361-6346  
Fax 20-2-360-5664

Mr. Ghally Kamel Badeer  
Director of Research  
El Nasr Saline Co.  
EGYPT

Dr. Hassan Zaki Youssef  
Head, El Nile Company  
for Food Industry  
c/o UNICEF - ECO  
8 Adnan Sekey Street  
Dokki, Giza, EGYPT  
Telephone: 20-2-361-6346  
Fax 20-2-360-5664

Dr. Kamel Abdel Monem-Alzaawily  
Consultant to the Minister  
of Health on PHC and Nutrition  
Ministry of Health  
18 Al Ab Nassi Street  
Manchiel Albakri  
Magless El-Shaah Street  
Cairo, EGYPT  
Telephone 20-2-258-8500  
Fax 20-2-354-3315

Dr. Samir Suliman Abdullah  
MCH Specialist and  
Liaison Officer for IDD  
Ministry of Health  
General Department for MCH Services  
Magless El-Shaah Street  
Cairo, EGYPT  
Telephone 20-2-3557156  
Fax 20-2-3564649

Marco Vianello-Chiodo  
3 Wetherby Gardens  
London SW5 OJN  
ENGLAND  
Telephone 44-171-244-0432  
Fax 44-171-835-0043

Dr. Lindsey Jolly  
Economist  
International Sugar Organization  
1 Canada Square  
Canary Wharf  
London E14 5AA  
ENGLAND  
Telephone 44-171-5131144  
Fax 44-171-5131146

Dr. Omar Dary  
Biochemist Researcher  
INCAP  
Calzada Roosevelt, Zona 11  
Apartado 1188  
Guatemala City, GUATEMALA  
Telephone 502-2-719912  
Fax 502-2-736529

Dr. Oscar Pineda  
Director  
Centro Latino Americano de Nutricion  
y Estudios Metabolicos  
(CELANEM)  
5a Avenue, Sur. No. 23  
Antigua, GUATEMALA 03001  
Telephone/Fax 502-9-320852

Mr. Naval Kishore Bhawasar  
General Manager  
Weaning Food Division (WFD)  
Karnataka State Agro-Corn Products Ltd.  
P.O. Box No. 2479  
Hebbal, Bangalore 560024  
INDIA  
Telephone 91-80-333-0002/333-0281-83  
Fax 91-80-846-0574

Dr. M.K. Kundu  
Chief Director  
Directorate of Vanaspati  
Vegetable Oils and Fats  
Ministry of Civil Supplies,  
Consumer Affairs & Public Distribution  
Block 2, CGO Complex, Lodhi Road  
New Delhi-110003  
INDIA  
Telephone 91-11-436-4134  
Fax 91-11-436-2270

Mr. M. Idris Pabottingi  
Business Development Director  
Pt. Bakrie Sumatra Plantation  
Wisma Bakrie 7th Floor,  
Jl. H.R. Rasuna Said  
Kav. B-1, Jakarta-Selatan  
INDONESIA  
Telephone 62-21-5200426  
Fax 62-21-520-5170

Ingrid Kolb-Hindarmato, M.Sc.  
Project Officer, Nutrition  
UNICEF  
Wisma Metropolitan II, 10-11th Floor  
Kav.31 Jl. Jenderal Sudirman  
P.O. Box 1202/JKT  
Jakarta 10012  
INDONESIA  
Telephone 62-21-570-5816  
Fax 62-21-571-1326

Ms. Ning Rahayu  
Product Development Manager  
Pt. IndoFood Sukses Makmur  
Ariobimo Bldg. 7th Floor  
Jl. Rasuda Said  
Kav. X 2/5  
Jakarta  
INDONESIA  
Telephone 62-21-522-8822  
Fax 62-21-522-6171

# PARTICIPANTS CONT.

Mrs. Untari Setiawan  
Ministry of Health  
Jl. Percetakan Negara No. 23  
Jakarta 10011 , INDONESIA  
Telephone 62-21-424-1781  
Fax 62-21-425-3856

Dr. Mulyo Sidik  
Assistant to the Minister  
Ministry of Food Affairs/Bulog  
Jl. Gatot Subroto No. 49  
Jakarta 12950, INDONESIA  
Telephone 62-21-5210-283  
Fax 62-21-521-0279 or 525-6855

Dr. Benny Kodyat  
Director, Community Nutrition  
Jl. H.R. Rasuna Said Blok X-5  
Kav. 4-9 Jakarta 12950  
INDONESIA  
Telephone 62-21-52-038-83  
Fax 62-21-52-101-76

Mr. Bachtiar Jusuf  
Director  
Pt. Jakarana Tama  
Jl. Raya Ciawi-Sauka Bumi  
Ciawi, Bogor, INDONESIA  
Telephone 62-2-51-241-241  
Fax 62-2-51-240-672

Mrs. Endang S. Sunaryo  
Ir. Msc Food Technology  
Pt. Indofood Sukses Makmur  
Jl. Ancol I/4-5  
Jakarta 14430, INDONESIA  
Telephone 62-21-690-9432/690-5431  
Fax 32-21-6909433

Mr. Sapto Tranggono  
Corporate Development  
Agroindustry Division  
Pt. Bakrie & Brothers  
Jl. H.R. Rasuna Said Blok  
Kav. B-9  
Jakarta 12920, INDONESIA  
Telephone 62-21-52-101-76  
Fax 62-21-52-101-76

Mr. I.B. Agra Kusuma  
Engineer  
Director of Non-Metal Mining Industry  
Ministry of Industry  
Jl. Jend. Gatot Subroto  
Kav. 52-53, 12th Floor  
Jakarta 12950, INDONESIA  
Telephone 62-21-525-2746  
Fax 62-21-525-1556

Mr. Suparman Suseno  
P.T. Bakrie & Brothers  
Jl. H.R. Rasuna Said  
Kav. 4-9 Jakarta 12950  
INDONESIA  
Telephone 62-21-52-00426  
Fax 62-21-52-05170

Dr. Mohammad Aman Wirakartakusumah  
Advisor to the Minister  
Professor of Food Science  
Ministry of Food Affairs  
Jl. Gatot Subroto 49,  
Gedung Bulog II, 4th Floor  
Jakarta, INDONESIA  
Telephone 62-21-525-2209  
Fax 62-21-621307

Mr. Z.V. Malek  
Senior Officer  
Food and Nutrition Division  
Economic and Social Department  
Food and Agriculture Organization  
of the United Nations (FAO)  
Via delle Terme di Caracalla  
00100 Rome, ITALY  
Telephone  
39-6-5797-3330/3331  
Fax 39-6-5-7974593/3152

Arjan de Wagt  
Nutritionist  
UNICEF  
P.O. Box 30375  
Lilongwe - 3, MALAWI  
Telephone 265-780-788  
Fax 265-783-162

Mr. J. Mahesh  
Operations Manager  
RAB Processors Ltd.  
P.O. Box 5338  
Lilongwe , MALAWI  
Tel: 265-651-713/422/652-422/652-303  
Fax 265-651-804/651-815

Dr. Irma Eugenia Gutierrez Mejia  
Jefe de los Servicios Coordinados  
de Salud Publica en el Estado de Hgo.  
Secretaria de Salud  
Av. Madero Num. 405 Col. Ex- Hda.  
Guadalupe  
Pachuca, HGO, MEXICO  
Telephone 52-771-8-64-86/3-61-20  
Fax 52-771-3-64-88

Mr. Sohail Ansar  
Product Group Manager-ODF  
Lever Brothers Pakistan Ltd.  
Avari Plaza  
Fatima Jinnah Road  
Karachi, PAKISTAN  
Telephone 92-21-51934211/519349

Mahammad Isaque  
Senior Chief, Health and Nutrition  
Planning and Development Department  
Government of the Punjab  
Civil Secretarat, Lahore  
RES: 70-B, GOR - III, Lahore  
PAKISTAN  
Telephone 92-42-7324691/7580685  
Fax 92-42-7310705

Dr. Tasleem Akhtar  
Executive Director  
Pakistan Medical Research Council  
Sector C 512  
Islamabad  
PAKISTAN  
Telephone 92-42-217146  
Fax 92-42-216774

Mr. Naseem K. Haq  
Chairman, Control Committee  
Pakistan Flour Mills Association  
Room No. 101, Latif Plaza  
103, Ferozpur Road  
Lahore, PAKISTAN  
Telephone 92-42-7280763/410204

Dr. S. Mushtaq Ahmed Gardezi  
Deputy Director, Health Services  
Health Directorate  
Plate, Muzaffarabad,  
Azad Jammu & Kashmir  
PAKISTAN  
Telephone & Fax 92-058-2829

Dr. John Davies  
Director  
Social Marketing Pakistan  
D29, Block II, Scheme 5  
Clifton, Karachi  
PAKISTAN  
Telephone 92-21-492-3918  
Fax 92-21-492-3918

Mr. Zahid Majeed  
Corporate Director of Marketing  
National Foods Limited  
12-CL6, Claremont Road  
Civil Lines, Karachi  
PAKISTAN  
Telephone  
92-021-241-751719/522687/14478  
Fax 92-021-5684870/2417820

Mr. Imran Zafar  
Micronutrients Coordinator  
Social Marketing Pakistan  
313-A, Hillside Road  
E-7 Islamabad  
PAKISTAN  
Telephone 92-051-821051  
Fax 92-051-821058

Dr. Mubashar Riaz Sheikh  
Deputy Director General Health  
Ministry of Health  
Block C, Pak. Sect.  
Islamabad, PAKISTAN  
Telephone 92-051-812997  
Fax 92-051-815158

Malik Abdul Qayyum  
President  
Pakistan Flour Mills Association  
c/o UNICEF Pakistan  
P.O. Box 1063  
Islamabad, PAKISTAN  
Telephone 92-51-219-567  
Fax 92-51-219-565

Mr. James Mayrides  
Representative  
UNICEF Pakistan  
P.O. Box 1063  
Islamabad, PAKISTAN  
Telephone 92-51-219-567  
Fax 92-51-219-565

Mr. Sultan Mahmood  
Stores Operation Manager  
Utility Stores Corporation  
Plot 84, F-7/G-7, Blue Area  
Islamabad, PAKISTAN  
Telephone 92-051-214225/214227  
Fax 92-051-214226/213067

Mr. Amador C. Macatangay  
Vice President-General Manager  
FerchemX Corporation  
KM. 9, J.P. Laurel Avenue, SASA  
Davao City, PHILIPPINES  
Telephone 63-82-234-2923  
Fax 63-82-234/231-1810

Mr. Hernan Jaramillo  
Deputy Representative & Senior  
Programme Coordinator  
UNICEF  
6th Floor, Neda Building  
106 Armorsolo Street  
Legaspi Village  
Makati, Manila  
PHILIPPINES  
Telephone 63-2-892-42-85  
Fax 63-2-810-14-53

Mr. Rolf Klemm  
Country Representative, Philippines Office  
Helen Keller Foundation  
2139 Fidel A. Reyes St.  
Makati, Manila  
PHILIPPINES  
Telephone 63-2-60-15-26  
Fax 63-2-60-15-26

Mr. Wilfredo Sta. Ana  
Division Head, Technical Services  
Victorias Milling Company, Inc.  
Vicimico, Negros Occidental  
P.O. Box 171 - Bacolod City 6100  
PHILIPPINES  
Telephone 63-34-433-3528  
Fax 63-34-4333528 or 4350121

# PARTICIPANTS CONT.

Ms. Carmina Parce  
Food & Drugs Regulation Officer  
Department of Health  
Bureau of Food and Drugs  
Alabang, Muntilupa City 1770  
PHILIPPINES  
Telephone 63-2-842-4625/807-0721  
Fax 63-2-842-4603/807-0751

Dr. Manuel G. Roxas  
Undersecretary for Health  
and Chief of Staff  
Department of Health  
San Lazaro Compound  
Sta. Cruz, Metro Manila  
PHILIPPINES  
Telephone 63-2-711-98-44  
Fax 63-2-711-98-52

Adelisa C. Ramos  
Director, Nutrition Service  
Department of Health  
San Lazaro Compound  
Sta. Cruz, Manila 1014  
PHILIPPINES  
Telephone 63-2-711-6120  
Fax 63-2-711-6120

Mr. Manuel B. Plofino, Jr.  
Group Manager of Refinery,  
Production & Control Services Division  
Central Azucarera de Tarlac  
JCSI Building 119  
Dela Rosa Cor. C. Palanca Sts.  
Legaspi Village  
Makati, Metro Manila  
PHILIPPINES  
Telephone: 63-2-818-39-11  
Fax 632-817-93-09

Mr. Melchor Deloso  
Research and Development/Quality  
Assurance Manager  
Morning Star Milling Corporation  
Penthouse Morning Star Center  
347 Senator Gill Puyat Avenue  
Makati, Metro Manila  
PHILIPPINES  
Telephone 63-2-817-6628/817-8591

Dr. Bo Bengtsson  
Professor, Department of  
Crop Production Science  
Swedish University of  
Agricultural Sciences  
Box 7043, S-750 07  
Uppsala, SWEDEN  
Telephone 46-18-672615  
Fax 46-18-672909

Dr. Barbara A. Underwood  
Scientist  
World Health Organization  
20, Avenue Appia, CH-1211  
Geneva 27  
SWITZERLAND  
Telephone 41-22-791-4146  
Fax 41-22-791-0746

Dr. Denis Barclay  
Team Leader Micronutrients  
Department of Nutrition  
Nestle Research Center  
P.O. Box 44  
Vers-Chez-les-Blanc  
CH-1000, Lausanne 26  
SWITZERLAND  
Telephone 44-21-785-8111  
Fax 44-21-785-8556

Dr. Max Blum  
Advisor in Human Nutrition and Health  
Vitamins and Fine Chemicals Division  
F. Hoffman-LaRoche Ltd.  
VME P.O. Box  
CH-4002 Basel  
SWITZERLAND  
Telephone 41-61-715-82-27  
Fax 41-61-711-70-22

Dr. Felix Chavez  
Jefe, Division de  
Investigaciones de Alimentos  
National Institute of Nutrition  
Caracas, VENEZUELA  
Telephone 58-2-285-5529  
Fax 58-2-284-8543

Mr. George de Bekker  
Nutritional Manager  
Group Danone  
General Biscuits Nederland BV  
P.O. Box 8068  
33116 Bessemerstraat 19-21  
Postbus 8068 3301 CB Dordrecht  
THE NETHERLANDS  
Telephone 31-78-6524-536  
Fax 31-78-6182-657

Dr. D.A.P. Bundy  
Scientific Coordinator  
Partnership for Child Development  
Oxford University/UNDP  
Centre for the Epidemiology of Infectious  
Disease  
South Parks Road  
Oxford OX1 3PS  
UNITED KINGDOM  
Telephone 44-1865-281246  
Fax 44-1865-281245

Mr. David M. de Ferranti  
Director  
Population Health &  
Nutrition Department  
The World Bank  
1750 Pennsylvania Avenue, NW  
Washington, DC 20433, USA  
Telephone 202-473-8729  
Fax 202-522-3235

Dr. Edison J. Geromel  
Director of Scientific & Regulatory Affairs  
for Latin America  
The Coca-Cola Company  
P.O. Box Drawer 1734  
Atlanta, GA 30301, USA  
Telephone 404-676-3924  
Fax 404-515-0075

Dr. Louis Pizzarello  
Medical Director, Philippine Office  
Helen Keller International  
90 Washington Street, 15th Floor  
New York, NY 10006, USA  
Telephone 212-943-0890  
Fax 212-943-1220

Mr. Haile Mehansho  
Corporate Product Development  
Food and Beverage Department  
The Procter & Gamble Company  
Miami Valley Laboratories  
P.O. Box 538707  
Cincinnati, OH 45253-8707  
Telephone 513-627-2725  
Fax 513-627-1940

Dr. Tung-Ching Lee  
Professor, Department of Food Science &  
the Center for Advanced  
Food Technology  
Rutgers, The State University  
of New Jersey  
P.O. Box 231  
New Brunswick, NJ 08903-0231, USA  
Telephone 908-932-9671  
Fax 908-932-6776

Dr. Ian Darnton-Hill, MD, MPH, MSc  
OMNI Project Director  
John Snow, Inc.  
11th Floor  
1616 North Fort Myer Drive  
Arlington, VA 22209, USA  
Telephone 703-528-7474  
Fax 703-528-7480

Dr. Richard Cotter  
Vice President, Research and  
Development  
Gerber Products Company  
445 State Street  
Freemont, MI 49412, USA  
Telephone 616-928-2604  
Fax 616-928-2964

Dr. Judith McGuire  
Population Health & Nutrition Department  
The World Bank  
1750 Pennsylvania Avenue, NW  
Washington, DC 20433, USA  
Telephone 202-473-8729  
Fax 202-522-3235

Dr. Peter Ranum  
Technical Director  
Elf Atochem  
1740 Military Road  
P.O. Box 1048  
Buffalo, NY 14240, USA  
Telephone 716-877-1740  
Fax 716-877-8729

Mr. Don Compton  
Section Manager  
Corporate Product Development  
Food & Beverage  
The Procter & Gamble Co.  
6210 Center Hill Road  
Cincinnati, OH 45224, USA  
Telephone 513-634-2963  
Fax 513-634-2262

Dr. Steve Rizk, Ph.D.  
Senior Scientist  
M&M Mars  
800 High Street  
Hackettstown, NJ 07840, USA  
Telephone: 908-850-2753/7897  
Fax 908-850-2697

Dr. Mario L. Rodenstein, Ph.D.  
Research and Development Director  
CPC Latin America  
P.O. Box 8000  
International Plaza  
Englewood Cliffs, NJ 07632, USA  
Telephone 201-894-4608  
Fax 201-894-4650

Mr. James A. Levesque  
International Trustee  
Kiwanis International  
P.O. Box 2524  
Duxbury, MA 02331-2524, USA  
Telephone 617-636-8408  
Fax 617-636-8321

Mr. Camille Saade  
Private Sector Coordinator  
BASICS  
1600 Wilson Boulevard, Suite 300  
Arlington, VA 22209, USA  
Telephone 703-312-6810  
Fax 703-312-6900



# PARTICIPANTS CONT.

Dr. Leila G. Saldanha  
Director, Nutrition Affairs  
Kellogg Company  
235 Porter Street  
Battle Creek, MI 49016-3423, USA  
Telephone 616-961-3261  
Fax 616-961-3130

Mr. Chuck Gagel  
Associate Director  
Corporate Product Development  
Food & Beverage  
The Procter & Gamble Co.  
6210 Center Hill Road  
Cincinnati, OH 45224, USA  
Telephone 513-634-5232  
Fax 513-634-2262

Dr. Ram V. Chaudhari  
Executive Vice President  
Fortitech Inc.  
Rotterdam Industrial Park Building #1  
Schenectady, NY 12306, USA  
Telephone 518-356-5155  
Fax 518-356-2729

Mr. Rolf Campbell  
Director, International  
Development Division  
Land O' Lakes  
4001 Lexington Avenue, North  
Arden Hills, MN 55440-0116, USA  
Telephone 612-481-2693  
Fax 612-481-2556

Dr. Michael C. Latham  
Professor of International Nutrition  
Cornell University  
216 Savage Hall  
Ithaca, NY 14853, USA  
Telephone 607-255-3041  
Fax 607-255-1033

Dr. Maxime Buyckx  
Director, Nutrition & Health Sciences  
The Coca-Cola Company  
One Coca-Cola Plaza  
Atlanta, GA 30313, USA  
Telephone 404-676-7047  
Fax 404-676-7166

Ms. Julie L. Busse, MS  
Project Officer  
Thrasher Research Fund  
50 E. North Temple Street, 8th Floor  
Salt Lake City, UT 84150, USA  
Telephone 801-240-4720  
Fax 801-240-1417

Dr. Robert A. Burns  
Director, Nutrition Sciences  
Mead Johnson Nutritional Group  
Mead Johnson Research Center  
2400 West Lloyd Expressway  
Evansville, IN 47721-0001, USA  
Telephone 812-429-7987  
Fax 812-429-5925

Dr. Carole Dichter  
Senior Program Manager  
Nutrition Science  
Campbell Soup Company  
Campbell Place  
Camden, NJ 08103, USA  
Telephone 609-342-8582  
Fax 609-342-4745

Ms. Gloria Brooks-Ray  
Director, Regulatory Affairs & Nutritional  
Sciences  
CPC International Inc.  
International Plaza  
P.O. Box 8000  
Englewood Cliffs, NJ 07632, USA  
Telephone 201-894-2560  
Fax 201-894-2355

Dana M. Faulkner  
Vice President, International Group  
Porter/Novelli  
1120 Connecticut Avenue, NW  
Washington, DC 20036, USA  
Telephone 202-973-5800  
Fax 202-973-5858

Dr. Thad M. Jackson  
Director, Issues Management  
Nestle, Inc.  
20944 Cox Mill Court  
Ashburn, VA 22011, USA  
Telephone 703-729-9274  
Fax 703-729-8751

Mr. Max R. Motyka  
Director of Marketing and Sales  
Albion Laboratories, Inc.  
Human Nutritional Products Marketing  
27501 Jefferson Avenue  
St. Clair Shores, MI 48081, USA  
Telephone 810-774-9055/800-222-0733  
Fax 810-774-8838

Elizabeth Turner  
Executive Director  
SUSTAIN  
1400 16th Street NW  
Suite 241  
Washington, DC 20036, USA  
Telephone 202-328-5180  
Fax 202-328-5175

Mr. Richard L. Hanneman  
President  
Salt Institute  
700 North Fairfax Street  
Alexandria, VA 22314-2040, USA  
Telephone 703-549-4648  
Fax 703-548-2194

Dr. John E. Vanderveen  
Director  
Office of Plant & Dairy  
Food & Beverages  
U.S. Food and Drug Administration (FDA)  
200 C Street, SW, HFS-300  
Washington, DC 20204, USA  
Telephone 202-205-4064  
Fax 202-205-4422

Mr. David Alnwick  
Senior Advisor, Micronutrients  
UNICEF  
Suite H-8F  
3 UN Plaza  
New York, NY 10017, USA  
Telephone 212-326-7057  
Fax 212-326-7336

William Warshauer  
Product Manager, Micronutrients  
PSI  
1120 19th Street, NW  
Suite 600  
Washington, DC 20036, USA  
Telephone 202-785-0072  
Fax 202-785-0120

Mr. Steve Wilbur  
OMNI Project Deputy Director  
John Snow, Inc.  
11th Floor  
1616 North Fort Myer Drive  
Arlington, VA 22209, USA  
Telephone 703-528-7474  
Fax 703-528-7480

Dr. Krishna Anantharaman  
Principal Research Scientist  
Nestle R&D Center  
201 Housatonic Avenue  
New Milford, CT 06776, USA  
Telephone 203-355-0911  
Fax 203-355-3446

Dr. Judit Katona-Apte  
Senior Humanitarian Affairs Officer  
United Nations Department of  
Humanitarian Affairs  
United Nations Building  
Room S2925  
New York, NY 10017, USA  
Telephone 212-963-5145  
Fax 212-963-3630

Dr. Ray Yip  
Chief  
Maternal & Child Health Branch  
Division of Nutrition  
CDC, Mailstop K-25  
4770 Buford Highway, NE  
Atlanta, GA 30341-3724, USA  
Telephone 770-488-4867  
Fax 770-488-4728

Ms. Prisca Mupfumira  
Marketing Director  
Midlands Milling Company  
83 Woolrich Road  
P.O. Box ST 131  
Southernnton, Harare  
ZIMBABWE  
Telephone 263-4-669744  
Fax 263-4-668180

Mrs. J.R. Mutamba  
Deputy Director-Nutrition Unit  
Ministry of Health and Child Welfare  
P.O. Box CY1122  
Causeway, Harare  
ZIMBABWE  
Telephone 263-4-792454/791169  
Fax 263-4-791169

J.M. Baker  
General Manager, Operations  
National Foods Limited  
P.O. Box 269  
Harare  
ZIMBABWE  
Telephone 263-4-753751



# CONVENERS OF THE FORUM ON FOOD FORTIFICATION

## **The Micronutrient Initiative (MI)**

The Micronutrient Initiative was established in 1992 as an international secretariat in Ottawa, Canada by its principal sponsors: Canadian International Development Agency, International Development Research Centre, United Nations Children's Fund, United Nations Development Program, and the World Bank. The mission of the MI is to catalyze the sustainable control of micronutrient malnutrition by the year 2000 in keeping with the goals of the World Summit for Children and the International Conference on Nutrition. The MI recognizes that solutions to overcoming micronutrient deficiencies need to go well beyond traditional health and nutrition systems. The MI's support is guided by national strategies and expert consensus regarding viable and sustainable interventions for each of the three targeted micronutrients. The MI focuses attention on five areas considered critical to national and global efforts in eliminating micronutrient malnutrition: advocacy and alliance building, development and application of technologies, regional and national initiatives, capacity building, and resolution of key operation issues.

## **The Program Against Micronutrient Malnutrition (PAMM)**

The Program Against Micronutrient Malnutrition, PAMM, is a multi-disciplinary team that engineers innovative solutions to reach the global goal of eliminating micronutrient malnutrition by the year 2000. PAMM works with public health officials worldwide through participatory training, customized technical support and strategic alliance building. Strategies include escalating the application of proven technologies, knowledge and information to improve micronutrient status of populations, advocacy for effective public policy, and development and promotion of quality assurance systems that sustain successful achievements. PAMM, represented by network members in 42 countries, is a collaborative enterprise of the Rollins School of Public Health at Emory University, the US Centers for Disease Control and Prevention, the Task Force for Child Survival and Development of the Carter Center, and Wageningen Agricultural University and International Agricultural Center. Programs are supported in part by the United Nations Children's Fund, the World Bank, the United States Agency for International Development, the Opportunities for Micronutrient Interventions Project, the Dutch Ministry of Foreign Affairs, the Thrasher Research Fund, and the Micronutrient Initiative.

## **The Keystone Center**

The Keystone Center is a non-profit, non-governmental organization that serves as a neutral convener, facilitator, and mediator for controversial issues related to human health, the environment, natural resources, and science and technology. The primary mission of the Center's Science and Public Policy Program is to resolve conflicts and facilitate mutual understanding and education among diverse parties, including citizen groups, the private sector, academia, labor, consumer groups and all levels of government. These conflict management projects have had major impacts on the development of regulatory policy, legislation, and action plans for local, regional, national, and international decision making. The Center has established a track record over its twenty year history for providing a respected and trusted neutral forum for resolving controversial policy issues. The product of these dialogues includes agreements that can be translated into operational rules, more effective regulatory policy, or the drafting of new legislation. Projects are implemented at the local, national, and international levels and concentrate in the substantive areas of environmental quality, natural resources, biotechnology and genetic resources, energy, agriculture, food and nutrition, health, science, and technology. The Keystone Science and Public Policy Program projects have focused on areas such as the clean-up of toxic waste sites, the implementation of clean air legislation, AIDS vaccine liability, food safety, the conservation of biological diversity, the management of hazardous and radioactive waste, and efficient energy use.

**Photography:**

Ronald Zirpoli  
Jack Bagriansky  
Academy for Educational Development  
UNICEF/C-63 34/Keery

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Teale Design, Inc.

**Copy Editor:**

Sharon Bell

For more information regarding The International Dialogue on Micronutrient Malnutrition or additional copies of this report, please contact:

**The Program Against Micronutrient Malnutrition**

1518 Clifton Road, N.E.  
Atlanta, GA 30322  
USA  
Telephone: (404) 727-5724  
Fax: (404) 727-4590  
Internet: bagrians@sph.emory.edu

**The Micronutrient Initiative**

BP 8500  
250 rue Albert  
Ottawa, Canada  
K1G 3H9  
Telephone: (613) 236-6163  
Fax: (613) 236-9579  
Telex: 053-3753  
Internet: tguay@idrc.ca