Attacking the Double Burden of Malnutrition in Asia and the Pacific

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with contributions from

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Preamble

The following statements from this publication were closely based on a pre-publication draft commissioned by the World Bank, entitled “Richard Heaver, Improving Nutrition: Issues in Management and Capacity Development”. This Report was published in January 2002 as a Health, Nutrition and Population Discussion Paper by the World Bank, several months after the ADB book was published. ADB regrets this oversight and extends an apology to Richard Heaver and the World Bank, with the note that the World Bank draft was not available to ADB during the final editing of its publication.

The noted passages below consist of ADB text in the left column and location in the Heaver paper on the right side.

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Chapter 6. “Developing Capacity for Nutrition Action”

ADB text	ADB page	Heaver paper location
…neither the lack of good interventions nor financial constraints that are the main barrier to project performance, so much as management problems related to limited local capacity to implement what is planned and budgeted (Gillespie 2001).	p.95	R. Heaver, Improving Nutrition Issues in Management and Capacity Development. World Bank. January 2002: p.1.
Tools for developing such "maps" of accountability include stakeholder mapping, using flow diagrams that chart the power or influence of different groups or organizations	pp.95-96	Heaver, pp.27-28
…including what to do, how to do it, when to do it, how to monitor and evaluate progress in doing it, who should guide and supervise the process, and what techniques should be used.	p.96	Heaver, p.18
Such weakness in monitoring progress in capacitybuilding activities is partly a consequence of poorly defined capacity development objectives, but also relates to the difficulty of finding measures of what are often qualitative changes. Examples of appropriate monitoring indicators are needed.	p.97	Heaver, p.19

The key issue is how nutrition program managers can get the services they want, when by definition they are not in control of the support institutions. There are two different kinds of strategies, which can be used separately or in combination. • Exerting more direct control, whether through getting representation on the governing board of the support institution, or developing improved contractual arrangements, including better planning and monitoring or providing funding for the institutional strengthening of the support institution, through training of staff, providing technical assistance, changing performance incentives, and/or reforming management systems and procedures. • Building alternative capacity, whether internal capacity for the particular function within the line agency or using competitive contracting to stimulate the development of additional capacity in the public, NGO, or private sectors-which may in turn necessitate developing the line agency's capacity to procure, manage, monitor, and evaluate such services.	pp.99-100	Heaver, pp.26-27
Many countries are aware that they have a serious malnutrition problem, but have not invested adequate skills and resources to deal with it. Sometimes this is because they lack the will to tackle the problem; sometimes it is because they lack the ability, due to financial or capacity constraints. Because the solutions are different in each case, it is crucial to distinguish to what degree poor nutrition program performance is due to lack of understanding, lack of commitment, or lack of capacity.	p.103	Heaver, p.20
Because of nutrition's multisectoral nature, the view that prevailed in the 1970s was that nutrition should be managed by multisectoral units in ministries of planning. These units often had little impact because they had little influence over the line agencies, which were the only institutions with field staff and other resources to mount large-scale nutrition programs.	pp.106-107	Heaver, p. 24

Whether this was the ministry of health or of agriculture depended largely on whether nutrition was more strongly championed by "health and care" stakeholders, or by "food" stakeholders. This approach, too, has had its problems, because single-line ministries seldom understand or are committed to the full range of nutrition activities; have little control over other agencies implementing other parts of the national nutrition strategy; and are not in a strong political position (and may have little political incentive) to secure resources from ministries of planning and finance for other line agencies' programs.	p.107	Heaver, p.24
Perhaps we have been asking the wrong question in focusing on where "nutrition" is located. The implementation of national nutrition strategies everywhere involves several ministries, each of which needs to be responsible for and committed to its activities. In any one country, there is usually a network of nutrition programs run by different agencies and local governments.	p.107	Heaver, p.25
Several stakeholder groups are involved directly or indirectly in nutrition-relevant policy making and resource allocation: technical nutrition specialists with specialist knowledge of nutrition and efficacy of possible solutions; national and local politicians promoting some mixture of their constituents' and their own interests; and finance, planning, and implementing agencies, all with limited budgets and multiple activities competing with nutrition for resources. Seen from this perspective, the issue is not so much who is in charge of nutrition, but how to bring these different stakeholders together to build consensus in a participatory way, and the means to feed performance results of different programs into decisions about resource allocation.	p.107	Heaver, p.25

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Stuart Gillespie has been a research fellow at the International Food Policy Research Institute (IFPRI) since 1999. His current research interests include the process of nutrition-relevant policy change, the role of capacity in conditioning program success, the operationalization of a human-rights-based approach to nutrition, and the linkages between HIV/AIDS and food and nutrition security. Prior to joining IFPRI, he worked extensively with various United Nations and bilateral agencies, the World Bank, and NGOs in many developing countries with a specific focus on South Asia. His work has concentrated on nutrition-relevant policy and program analyses, monitoring, evaluation, and the development of systems for catalyzing and strengthening community-driven nutrition programming. He received a B.Sc. in food science from the University of Reading in 1981, and an M.Sc. and Ph.D. in human nutrition from the London School of Hygiene and Tropical Medicine in 1982 and 1988, respectively.

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The ADB Nutrition and Development Series, begun in 2001, covers the impact of malnutrition in Asia and the Pacific on poverty and depressed human and economic development. The Series stresses three themes: targeting nutrition improvements at poor women and children, with benefits to families, communities, and nations throughout the life cycle; reviewing and applying scientific evidence about nutrition impact for policies, programs, and developmental assistance that will raise the quality of human resources; and creating opportunities for public, private, and civil sector partnerships that can raise the dietary quality of the poor, and enhance the learning and earning capability of poor children. The Series is intended for ADB member countries, development partners, and scholars interested in applying science and technology to investment decisions.

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FOREWORD

Malnutrition is both a cause and a consequence of poverty. Overcoming malnutrition is integral to liberating Asia's poor from a shortened life replete with illness, disability, and diminished capacity to learn and earn. Indeed, human development, social equity, and poverty reduction in Asia and the Pacific cannot be achieved without improving nutrition.

The pay-off to turning the tide of malnourishment is immense. Reducing malnutrition improves intellectual capacity, raises productivity and lifetime earnings, and frees private and public health care expenditures to meet other urgent needs. While no economic analysis can fully capture the benefits of sustained mental, physical, and social development, we know with certainty that long-term, sustainable, poverty-reducing economic growth is simply not possible without improving nutrition.

This book represents the first comprehensive assessment of nutrition in the region with the largest concentration of global malnutrition. The product of a two-year collaborative effort between the Asian Development Bank (ADB), International Food Policy Research Institute, and other partners, it sheds light on the emerging "double burden" of underweight and overweight malnutrition, and the linkages between them. And it provides clear evidence-based options for practical and affordable remedial action in different contexts.

We now know a lot more about what works, where. But the first step is to understand the nature of the problem. The book summarizes the prevalence, consequences, and causes of the main nutritional problems in Asia and the Pacific, and then turns to solutions, starting with the evidence on efficacy, and the actual effectiveness and impact of nutrition programs. The book stresses indirect actions that improve nutrition, including investment in poverty reduction, agriculture, women's development, microfinance, housing, and infrastructure. There is a useful summary of demographic, social, economic, political, and cultural factors that determine the feasibility of specific nutrition-relevant actions.

What sets this book apart, for the development community, is the clear link between evidence on what works to implementation strategies.

It also considers how to bring about necessary changes—in terms of resources, capacity, policy, and institutional arrangements— for effective implementation of appropriate policies and programs. The rationale for public investment in nutrition is justified because of market failures that make public sector intervention necessary. The book concludes with recommendations for direct and indirect actions that derive from the needs of countries, and suggestions on how development agencies, such as ADB, can support these actions.

The evidence and experience brought together in this book provide a powerful arsenal for our struggle to break the vicious life cycle of malnutrition and poverty. We hope that this material will be used widely by our development partners in this region and beyond. Asia is the crucible for eliminating malnutrition and raising the hopes of humanity.

Tadao Chino, President
Asian Development Bank

Per Pinstrup-Andersen, Director General
International Food Policy Research Institute

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EXECUTIVE SUMMARY

A MASSIVE PROBLEM WITH DIRE CONSEQUENCES

The concentration of malnutrition in Asia is greater than anywhere else on Earth. One in three preschool children is stunted, rising to one out of every two children in South Asia. If the prevalence is disturbing, the numbers are shocking. Seventy percent of the world's malnourished children reside in the region. This includes low birthweight babies, and underweight and stunted preschoolers. Also, three quarters of all micronutrient-deficient persons live in Asia: vitamin A, iodine, and iron deficiencies cause preventable deaths and brain damage to children and adults, and impede learning throughout life.

The continent is extremely heterogeneous—culturally, politically, and economically. The countries of South Asia are the poorest; those of East Asia, less so. There are several small but influential high-income states as well as a cluster of small islands in the Pacific. The face of malnutrition is different in each of these countries and regions. In some regions it is characterized by undernutrition, in some by overnutrition. In an increasing number of areas it is characterized by both. This is the double burden that Asia now faces.

Malnutrition occurs at all stages of life. In the areas marked by high undernutrition, malnourished women or adolescent girls give birth to babies who are born stunted and thin. These children do not experience much catch-up growth in subsequent years. They are more likely to get sick; they enter school late, they do not learn well, and they are less productive as adults. As adults, they are also more likely to suffer from the diet-related diseases that were formerly thought to be associated with increasing affluence such as diabetes, coronary heart disease, and hypertension. Undernutrition is thus also a terrible time bomb that paves the way for overnutrition later in life. Moreover, babies born to such underweight and/or stunted women are themselves likely to be underweight and/or stunted. In this way, undernutrition is handed down from one generation to the next as a grim inheritance. And so the cycle turns.

Combating malnutrition is a mandate for the region because Asian and Pacific nations have endorsed both the World Summit for Children goals and the International Development Goals, which target reduction of maternal and child mortality and rising education levels. Malnutrition at current levels will negate both goals.

HIGH AND PREVENTABLE COSTS OF MALNUTRITION IN ASIA

In the region where malnutrition has the most devastating impact on quality of life and economic growth, this is the first assessment that has quantified the various costs of the different forms of malnutrition

One massive cost is the loss of young lives. Nearly three million preschool children from nine low-income Asian nations die every year. Over half of these deaths are due to undernutrition. Reducing vitamin A deficiency improves survival of young children by up to 23 percent and costs as little as 50 US cents per child per year. Some 65,000 Asian women die every year in childbirth due to anemia.

Averting such preventable mortality is not only an ethical imperative, it is an economic one. Economic losses to nations derive from the enormous drain on people's productivity and educability. Malnourished adults have lower work output in physical labor than better-nourished adults, earn less at piecework jobs, are less productive, and are less likely to be hired as daily wage labor. A country like Bangladesh loses three billion dollars each year as a result of lower productivity and treatment costs due to malnutrition. Sustained elimination of micronutrient deficiencies alone could increase a country's GDP by up to 5 percent, at a cost of less than 0.3 percent of GDP. Sustained poverty reduction without nutrition improvement is inconceivable.

With regard to education, children—particularly girls—malnourished during the first two years of life are less likely to enroll in school than their well-nourished peers, and if they do enroll, have worse educational performance. Universal salt iodization can eliminate the severe mental retardation associated with iodine deficiency, and adds as many as 14 IQ points, on average, to every person in a country, thus contributing to higher returns on investment in education.

CONCERTED PUBLIC ACTION IS ESSENTIAL

Public action to reduce malnutrition is both a moral imperative and an excellent investment. Reductions in malnutrition improve intellectual capacity, raise productivity and lifetime private earnings, and reduce private and public health care expenditures in ways that reverberate throughout the life cycle. The potential gains are massive. No economic analysis can fully capture the benefits of such sustained mental, physical, and social development.

Nutrition-fuelled growth promises to reduce income inequality and accelerate poverty reduction. Investing in nutrition is one of the most effective and sustainable pro-poor economic growth strategies.

SOLUTIONS EXIST

First, the evidence is clear, economic growth will absolutely not be enough to make a significant dent in malnutrition rates. Historical growth rates for the region, if maintained, would lead to malnutrition reductions of just one third of the international goals for 2020. Direct nutrition interventions supported by pro-nutrition indirect actions are essential. This book distils the key findings of an exhaustive review linking evolving knowledge of intervention efficacy with large-scale programmatic effectiveness—the first time this has been done.

Much is known about how to combat the different forms of malnutrition in the region, and interventions produce benefit-cost ratios that are competitive with other investments: in the range of 4 to 8. When discounted at the more appropriate social-sector rate of 3 percent, the benefit-cost ratios are much higher.

The menu of effective direct action is clear. For children, this includes growth promotion, comprising growth monitoring, protection, and promotion of breastfeeding, and the promotion of appropriate complementary feeding practices; disease management, including feeding during and after diarrhea and oral rehydration therapy; micronutrient supplementation including vitamin A megadoses for children from 6 months of age, and possibly iron supplements where anemia is prevalent; the promotion of consumption of iodized salt; deworming; and targeted food supplementation, where found to be relevant, feasible, and cost effective. For women,

activities within ante- and postnatal care strategies comprise tetanus toxoid immunization, micronutrient supplementation, including iron and folic acid tablets for pregnant women, and possibly a postpartum vitamin A megadose where vitamin A deficiency is known to be a problem; iodized salt consumption; food supplementation during pregnancy; malaria chemoprophylaxis in endemic areas; and reproductive health education, including the need to delay conception until after adolescence and ensure safe birth intervals.

Adequate care is of fundamental importance. Psychosocial stimulation is but one of several caring practices that have been increasingly recognized as key child development strategies. Integrated early childhood care and nutrition interventions including, for example, simple messages for parents on how to facilitate psychological development; the promotion and support of home-based, group child care; parent education courses; and breastfeeding support groups, have been shown to be effective.

But this is just the menu. The particular choice of interventions is context specific, deriving from an understanding of the nature, distribution, and causes of the problem and the existing context, including infrastructure, resources, and capacity for implementation. Some prioritizing will be required initially with regard to population target groups and the mix and phasing of actions. Under-two-year-old children and pregnant women are priority groups. As well as targeting, significant coverage is required to achieve large-scale impact. And intensity—or the concentrations of resources or person-power per unit target group—is a fundamental issue, albeit often neglected. Many programs have failed in Asia because, in going for coverage without the requisite degree of intensity, they are effectively "spread too thin" for impact.

Success in Asia has been demonstrated where community-based programs are linked operationally to service delivery structures, which are often village-based primary health care outlets. Government employees at such levels may be oriented to act as facilitators of nutrition-relevant actions that are coordinated and managed by community-based mobilizers, often volunteers selected by local communities. The mobilizer-facilitator nexus should be supported and managed by a series of organizational structures from the grassroots to national levels, and underpinned by broad-based social mobilization and communication strategies. The experience of Thailand is a powerful reminder of what can be done: here, dynamic partnerships of national and local governments with communities were forged within a poverty reduction rubric. Through such sustained, broad-based support to focused community action, Thailand achieved unprecedented declines in child underweight rates, year after year, for most of the last two decades—gains that proved resilient to the recent financial and economic crisis.

Many lessons learned relate to the way things were done, not what was actually done—more "how" than "what." Both process and outcome orientations have merit over different time spans, but for maximal long-term sustainable impact they need to be integrated. Community ownership and empowerment are fundamental to success, both with respect to means and ends.

Context is important. The shifting backdrop of macro-level forces—social, economic, political, cultural, and technological—determine the environment in which the basic causes of malnutrition operate. Many of these dynamics are enabling, such as decentralization and democratization; many are disabling, such as the HIV/AIDS pandemic.

Why then, does malnutrition persist in the region? One major reason is that not enough resources are put into such interventions. For financing direct actions, rough estimates presented in this report suggest that the cost of meeting the unmet

direct nutrition needs of children in the region is equivalent to 5 percent of current public-sector health budgets. The diversion of resources from less-effective food assistance programs through improved targeting toward direct nutrition programs would have a strong impact on the current generation of infants, and on the infants they themselves will eventually parent. Moreover, the shift from a curative public health approach to a pro-poor public nutrition approach based on prevention and promotion, will have a major enduring impact.

But more than extra financial resources are needed. Sufficient levels of technical and managerial capacity are also identified as key constraints. A recent study found that only 18 precent of World Bank health, nutrition, and population projects underway during the 1990s achieved their institutional development objectives. Failure to take capacity development seriously usually results in failure to achieve or sustain results. A fundamental component of capacity is the ability to gather and use relevant, timely information to improve decisions and actions. Greater priority needs to be attached to building and supporting decentralized management information systems that transparently track both processes and outcomes. In addition to better monitoring, there is an urgent requirement for better evaluations that encompass the myriad benefits of improving nutrition over different time spans. In order to achieve these changes, support needs to be channeled toward strengthening policy-program-research-training networks, grounded in apex nutrition-relevant institutions at the national and regional levels.

Finally, with regard to problems of overweight—the other burden—there is an urgent need to pilot program and policy initiatives aimed at combating diet-related noncommunicable diseases. Development of food and nutrition and health policies for countries where problems of dietary excess and deficit exist side by side represents a new and pressing agenda. Currently, efforts are being made in the preparation and use of food-based dietary guidelines, although less has been done systematically to promote consumption of a healthful diet. Pilot programs in the area of behavior change need to be developed and evaluated for effectiveness and cost effectiveness.

NEED FOR A NUTRITION-FRIENDLY POLICY ENVIRONMENT

In themselves, direct interventions will not be enough, at least not in the long term. The multifaceted nature of malnutrition means that it may be effectively addressed only when several sectors and strategies are brought to bear. Combining improved infant feeding, better household access to food, and improved and more accessible health services and sanitation is more effective than any of these measures taken alone in reducing malnutrition where food, health, and care are all problems. Given the well-documented synergies between many such actions, the combined effects are often not merely additive, but multiplicative.

Moreover, benefits may be mutual. Attention to nutrition in the design of policies and programs that impact on some of the more basic causes of malnutrition will also have direct pay-offs for these sectors. A well-nourished population is better able to learn, and is more productive and healthier. It is thus important for policies and programs that can indirectly affect malnutrition to do so in a positive manner. Agriculture and agricultural research, aside from their important income-generation impact, can have a large positive effect on nutrition through productivity increases that lower the price of micronutrient-rich crops and on efforts to improve the bioavailable micronutrient

content of cereals and other essential foods. Food price policy can also be used to influence dietary shifts away from fats and added sugars.

Policies to promote the status of women and protect their economic, social, and political rights are key to more informed decisions about the age of first marriage, fertility, food allocation within the household, the provision of care to infants and mothers, and the accessing of education and health care systems for female infants and children. Health, water, and sanitation systems must be relevant, accessible, affordable, and of adequate quality. Legislation that is nutrition focused and enforceable is critical to efforts to establish food fortification systems that serve the malnourished and to efforts to promote exclusive breastfeeding.

WHAT DEVELOPMENT PARTNERS CAN DO

What then are the roles of development organizations such as the Asian Development Bank?

First, there is a need for development partners to provide sustained support for appropriate policies and programs aimed at attacking the double burden of malnutrition in Asia and the Pacific. The size of the problem and its massive consequences demand this. But there is another justification: applied science has clearly demonstrated what works and why in different situations, so that a strong regional impact is likely if this knowledge is brought to bear in the form of concerted nutrition-relevant policies and programs. Development partners, including ADB, can use the above menu for action, linking indirect and direct options with levels of in-country capacity as starting points in assessing their specific roles in policy and program support.

Second, development organizations should promote the formation of strategic alliances between and within countries—with communities in agriculture, health, education, governance, trade, and infrastructure—so as to enhance the effectiveness of regional support to nutrition-improving country processes. New forms of subnational partnership are required, including partnerships between local governments and community organizations, which worked so well in Thailand, between governments and civil society, and between the public and private sectors, particularly with regard to micronutrient fortification.

Third, ADB and its partners can make a powerful contribution through advocacy and support for national 'nutrition champions' who actively engage in the policy-change and public-sector-reform processes. The crux of a new advocacy strategy should be that the widely endorsed International Development Goals on poverty, education, and health *cannot* be achieved and sustained without a concerted attack on the pernicious life-cycle effects of different forms of malnutrition. There has to be better recognition of the fact that advocacy is not just information dissemination. A greater understanding is required of the values, interests, beliefs, and goals of all stakeholders, including those of nutrition actors themselves. Only through such a better understanding of the political economy 'black box' will the opportunities for positioning nutrition effectively in the new development arena become apparent.

Fourth, capacity development should be integral to country support, not something tacked on as a extra component. The review of nutrition-relevant capacity in this book has led to clear recommendations for development partners. The traditional project cycle, predicated as it is on the assumption that solutions to known problems can be fully determined at the outset and that projects can be fully designed, costed in advance, and successfully implemented to a fixed timetable, is not well

aligned with a learning-by-doing approach that is the foundation of true capacity development. Ongoing decentralization processes further back the need to provide more flexibility in planning.

Fifth, and related to capacity, monitoring and evaluation system development needs prioritizing. Key data empower decision makers—from the mother discussing her child's growth that month, to the government official in the planning commission weighing the costs and benefits of different options. Processes as well as outcomes need to be tracked, and the strengthening of such processes viewed as a fundamental indicator of both quality and sustainability. One such process indicator would be the degree to which capacity gaps identified in the causal analysis are being closed. Development partner performance too needs evaluating from this perspective. In recent years, ADB has played an important role in gathering, generating, and disseminating useful knowledge and experience on what works in nutrition. Such a role of building the evidence base and broadcasting success stories is extremely important in fostering change.

Sixth, development partners should support relevant operations research, which is fundamental to improved programs. As with capacity development, it should not be thought of as an ad hoc exercise, but rather as a fundamental component of the management information system, and one that has a clear budget line. While the funds should be allocated to support such research, the actual research questions will only become known as the program evolves.

Overall, ADB now has a major opportunity to operationalize its emerging commitment to nutrition in the above ways. In so doing, it could help pave the way to realizing the common vision uniting all actors in these pursuits—that is, a world in which children are no longer being born malnourished.