6. ETHICS AND INEQUITY

> The true gauge of success for development projects is not to be found in numerical data or statistics but "in the smiles of children."
>
> *Daisaku Ikeda – 2003 Peace Proposal – A Global Ethic of Coexistence: Towards a "Life-Sized" Paradigm for our Age*

6.1 Introduction

The UN Millennium Development Goals aim at working towards creating a more just world economic order by 2015 in terms of reducing poverty, child and maternal mortality, gender disparity, disease and improving literacy and environmental sustainability. The Asia-Pacific region houses countries that are way behind the target in terms of addressing these issues of equity with regard to children, adults and future generations, and in terms of environmental sustainability. Even within many of the countries there is substantial disparity. This chapter examines equity/inequity from three perspectives, viz. Inequity at Birth, Inequity in Adult Life and Intergenerational Equity, as well as the ethical issues associated with them.

The process of economic growth that has been adopted by most countries has been at the cost of economic development and the human factor. Although there might be an apparent reduction in percentage terms, the numbers remain large in absolute terms. For instance, an often heard critique of the process of planned development in India is that many of the plans and programmes have by-passed the people who were to be the beneficiaries.

An ethical approach to development demands that each individual is able to lead a life of dignity, wherein his/her basic minimum needs of food, clothing, and shelter are fulfilled. Inequity in terms of unequal access and exploitation on the grounds of gender, caste and class are untenable in such a framework. Birth in poverty means being born with the handicap of low health capacity in terms of being underweight. This manifests in early childhood as stunting and wasting, and inhibits the ability of a child to compete on a level playing field due to no fault of the child.

Despite advances in science and technology, numerous declarations and plans, and programmes later, the scourge of poverty continues and the benefits of economic development have not reached out to all. This is observable in disparities between nations – the developed and less developed, high income and low-income countries, and disparities within nations – apparent in pockets of hunger and malnutrition in the midst of plenty, and in discrimination on the grounds of caste, creed, gender and religion. The roots of such behaviour may perhaps be traced to a desire to dominate on the part of the powerful, to get the best for oneself at any cost and

not bother about others. Something of this can be seen in the individual and also in the larger social context of the group. In pure economic terms, a typical example would be the developed countries protecting the interests of their people under the guise of minimum support while objecting to subsidies for the poor in developing counties, thereby creating an uneven playing ground. Within a nation, the example of a large multipurpose power project constructed by displacing thousands from their land, overrunning the forest and land resources, to serve the needs of industry and urban areas without any proper rehabilitation and resettlement mechanism in place, raises to question the very essence behind such development efforts, efforts that both exacerbate present inequities and affect intergenerational equity, as well effect loss of precious natural resources.

Do the weak and poor always have to be at the receiving end? Do they not have the same right to a life of dignity? Why should future generations pay the price in the race to realize shortsighted benefits for a few? Should not sustainable development be the aim of any development effort? Examining the issue in the light of Paul Samuelson's three basic questions, namely: What to produce? For whom to produce? and How to produce?, one needs to probe further into who is going to be benefited? Does the exercise deprive some for the benefit of others? What is the long-term impact of such an endeavor going to be? In other words, just as growing awareness has in recent times led to environmental impact assessments of projects to address the issue of perpetuation of intergenerational inequity emanating from overexploitation of natural resources, we need to have an ethical impact assessment of any development effort – to draw up a matrix of who gets what and determine if the process and outcome is fair to all concerned.

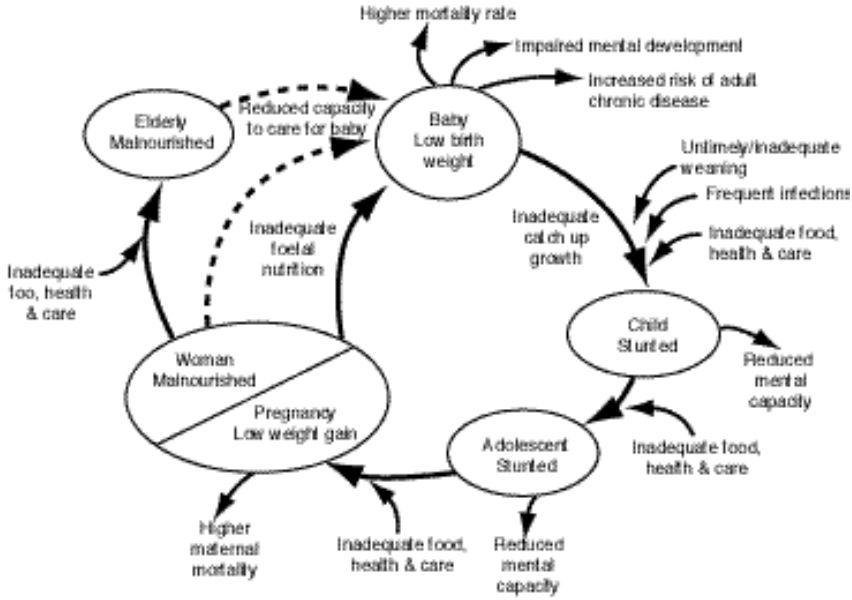
6.2 Inequity at Birth

Inequity at birth has its roots in the inability of the mother to have adequate and proper nourishment due to poverty and lack of purchasing power, thereby resulting in a low birth weight baby. Left un-addressed, it perpetuates inequity in later life, by reducing cognitive abilities and the capacity to compete.

Child malnutrition is a major cause for child mortality in the Asia-Pacific region. Almost a third of all babies in South Asia are born with low birth weight. Given that eighty percent of brain development is completed before the age of two, depressed physical and mental ability that accompanies low weight at birth has a major negative impact on a nation's economy. Such children suffer handicaps; even at birth their mental development is affected as well as their cognitive ability. Seventy percent of the world's malnourished children reside in the region. In areas of high under-nutrition, malnourished women or adolescent girls give birth to babies that are born stunted and with low birth weight (LBW). Under-nutrition is, thus, handed down from one generation to another. (See figure on Nutrition throughout the Life Cycle). Denying the child an opportunity for mental and physical development even at the foetal stage is the cruellest form of inequity. Thus,

"bridging the nutritional divide is the first requisite for a more equitable and humane world."[1]

Figure Nutrition throughout the life cycle



Source: UN Commission on Nutrition.

According to studies, malnutrition is associated with 51 percent of child deaths in nine low-income countries – Bangladesh, Cambodia, Laos, Vietnam, India, Nepal, Pakistan, Sri Lanka and People's Republic of China.[2] The majority of LBW infants in developing countries are born small as a result of intrauterine growth retardation (IUGR). Asia has a higher prevalence (12.3%) of LBW children (less than 2,500 grams at birth) than any other continent. Some consequences of LBW are greater morbidity and mortality risks, poor neuro-developmental outcomes, reduced strength and work capacity and increased risk of chronic disease in adulthood. The number of LBW children is particularly high for Bangladesh and India. While, in Southeast Asia, overall LBW rates are relatively lower, the highest prevalence of IUGR-LBW (in the range of 20-24 percent) is found in Myanmar and Cambodia.

[1] Swaminathan, M.S. (2002). Nutrition in the Third Millennium: Countries in Transition Plenary Lecture, 17th International Congress on Nutrition, Vienna, 27-31 August.

[2] Gillespie, Stuart and Haddad, Lawrence J. (2003) The Double Burden of Malnutrition in Asia: Causes, Consequences and Solutions, Sage Publications India Private Ltd., New Delhi.

The prevalence of LBW is strongly associated with the relative under-nutrition of mothers in the region; about 60 percent of women in South Asia and 40 percent in Southeast Asia are under weight (weigh less than 45 kilograms). **Maternal malnutrition** (chronic energy deficiency) varies greatly between countries. In South Asia women generally suffer from chronic energy deficit due to an insufficient daily energy intake, 500-700 kcal less than recommended. In Southeast Asia, the levels of maternal malnutrition are high in Cambodia and Vietnam.

Asia also has the highest prevalence of anemia in the world. Anemia impairs human functions at all stages of life. In South and Southeast Asia, 76 percent of pregnant women, and 63 percent of preschool children, are anemic. In Bangladesh, India, Myanmar, and Nepal, more than 70 percent of pregnant women are anemic; South Asia accounts for about 50 percent of the world's anemic women. Their babies have greater chances of being premature, underweight, dying as newborns, and remaining anemic if they survive, thus, dwarfing the nation by their very birth and compounding health and development problems.

Following low weight at birth, early childhood growth failure is manifested in growth stunting (Table 6.1). South Central Asia registered the second highest prevalence of growth stunting in the world at 44 percent in 2000. In Southeast Asia it was 33 percent.

Table 6.1. Regional Trends and Projections for stunting among under-5 year old children, 1995-2005 (percentage prevalence)

	1995	*2000*	*2005*
South Central Asia	48.0	43.7	39.4
Southeast Asia	37.7	32.8	27.9
All Developing Countries	36.0	32.5	29.0

Source: WHO (1999), in Gillespie and Haddad, 2003.
South Central Asia includes Central Asian Republics and South Asia.

In South Asia, India and Pakistan account for the highest number of world's stunted children, and Bangladesh, Nepal, and Bhutan, all have a prevalence of over 50 percent. In 2005, it is projected that 67 percent of children in Asia will continue to be stunted. Growth stunting in childhood is a risk factor for increased mortality, poor cognitive and motor development, and other impairments in function. Children who have been severely under-nourished in early childhood are reported to suffer a later reduction in IQ. Stunting also leads to smaller size and poorer performance in adulthood. Along with LBW, it is a risk factor for adult chronic diseases. Further, half of the underweight children live in South Asia and in Southeast Asia. (Table 6.2)

Table 6.2. Wasted, stunted, and underweight children (under five)

Country	*Wasted %*	*Stunted %*	*Underweight %*
Bangladesh	15	51	56
Bhutan	4	54	40
Cambodia	13	56	52
China[b]	2.8	20	14.5
India	17	63	50
Indonesia	13	42[a]	36
Laos	11	47	40
Myanmar	11.2	42	31.2
Maldives	17	30	38
Nepal[c]	8.5	50.5	49
Pakistan	9.2	50.2	38
Papua New Guinea	6[d]	43[d]	30[d]
Sri Lanka	13	16.1	31
Philippines	6	30	28
Thailand	6	16	18
Vanuatu		19[d]	20[d]
Vietnam	14	44	41

Source: [a] *UNICEF 2000; WHO 1999; FAO 1998;* [c] *6-36 mo age group;*
[b] *FAO 1999 (from Tontisirin. K. et al, 2002)* [d] *refers to only part of the country*

Where the prevalence of stunting is high, environmental reasons are often incriminated, as in the case of South Asia where poor hygiene and sanitation, linked with overcrowding, emerge as important determinants of stunting. Household food security is also an important factor.

The problems of low weight at birth, stunting and wasting, affect performance and productivity of the individual, placing them at a disadvantage vis-à-vis normal healthy individuals, due to no fault of their own. From an ethical perspective, the onus falls on society at large to see to it that such inequity is not allowed to exist and that the environment is favourable for the birth of healthy babies, thus, paving the way for a healthy population. Addressing the issues of alleviating hunger and malnutrition, and giving special attention to the health and nutritional needs of pregnant and nursing mothers, therefore, needs to be on the top of the agenda in the Asia-Pacific.

6.3 Inequity in Adult Life

Children born with low weight, and affected by malnutrition during childhood, grow into unhealthy adults who remain caught in a vicious circle of poverty, illiteracy, unemployment, and low productivity. About two-thirds of the world's hungry people are in Asia and are chronically undernourished. The hungry are also the poor.

The effect of malnutrition on adult earnings and productivity is estimated at 10 percent for stunting, 4 percent for childhood anemia and 10 percent on average per child born to a mother with goitre. These losses are conservatively 2-3 percent of GDP in low-income countries. In South Asia, the estimated losses associated with iron deficiency alone are $5 billion per annum.[3] According to an IFPRI report[4], chronic child malnutrition reduces gross domestic product by 0.7 percent annually in India and 0.5 percent in China.

Besides calorie and protein malnutrition, micronutrient deficiencies are severe in Asia, causing serious health and development problems. Nutritional deficiencies of iron, iodine, and vitamin A are major concerns in South and Southeast Asia, although rickets and zinc and selenium deficiencies are additional concerns in certain areas. Iodine deficiency in Southeast Asia exceeds that in all other regions of the world.

Women tend to face intra-household and societal discrimination in the region, as well as globally. Pakistan, Nepal, Bangladesh and Laos have female literacy levels of around 30 percent or less, while the levels of male literacy are at least 50 percent in all of these countries. As a segment of the population, they are more vulnerable to problems of food insecurity and unemployment. Unfavourable sex ratios, lower wages, and constraints on asset ownership are manifestations of this form of inequity. Women's literacy and empowerment has great impact on improving nutrition levels of the family.

Undernutrition involves serious economic costs that warrant making investments in improving nutrition levels a top priority. While poverty is the main cause of food insecurity, food insecurity can in turn cause or worsen poverty. Investments in reducing malnutrition generate the ultimate positive externality – children who, in adulthood, are less likely to give birth to undernourished children. Worldwide, the food supply is enough to meet the energy needs of the growing number of people if it is equitably distributed according to each person's requirements. But, food is not equitably distributed. As a result, despite increases in food supply, uneven progress is noted towards 2010, when 344 million Asians are expected to still be chronically undernourished and most will live in low-income food-deficit countries (LIFDCs), such as Bangladesh, China, India, Mongolia, Nepal, and Papua New Guinea.[5]

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[3] ibid. p. 2.

[4] IFPRI. (2002). Reaching Sustainable Food Security for All by 2020, IFPRI, Washington.

[5] Tontisirin, K., Nandi, B. and Bhattacharjee, L. (2002), "Status of Food and Nutrition Security in Asia and the Pacific Region", in Proceedings of MSSRF-FAO Expert Consultation on Science for Sustainable Food Security, Nutritional Adequacy and Poverty Alleviation in the Asia-Pacific Region, MSSRF, Chennai.

Public action to reduce malnutrition is both a moral imperative and an investment towards a healthy population. Economic growth per se will alone not be sufficient. Malnutrition calls for direct nutrition intervention. Nutrition fuelled growth will reduce income inequality and accelerate poverty reduction by raising productivity and reducing private and public health care expenditures. Successful examples are found in pockets, for instance, in the Tamil Nadu Integrated Nutrition Project in India, Bangladesh Integrated Nutrition Intervention Project, and the Samurdhi programme in Sri Lanka. Thailand put nutrition on its national development agenda in the seventies and made nutrition improvement one of the priority goals closely linked to poverty alleviation in the National Economic and Social Development Plans and achieved remarkable results in a short time through community-based approaches. (See Box 1)

Box 1. Thailand's Nutrition Security Compact

Mobilizing "people power" in the cause of nutritional security is the most effective and sustainable strategy. The example of Thailand illustrates this.

During the past 10 years, Thailand has achieved remarkable progress in reducing maternal mortality as well as the incidence of LBW children. The strategy consisted of the following components:

- Eliminate severe, moderate and mild protein-energy malnutrition (PEM);
- Monitor growth among all pre-school children and provide food supplements where needed;
- Mainstream nutrition in health, education and agricultural policies;
- Retrain and retool existing staff and mobilize community volunteers. Choose one community volunteer for every 10 households and build their capacity;
- Encourage breast feeding and organize school lunch programmes;
- Promote home gardening, consumption of fruits and vegetables, aquaculture and food safety standards; and
- Introduce an integrated food safety net with emphasis on household food and nutrition security.

The positive impact of the above Nutrition Security Compact is evident from the decline of maternal mortality from 230 per 100,000 live births in 1992 to 17 in 1996 (Philip, *et al*, 2000). Thailand's initiative in organizing a **Community Volunteer Corps for Household Nutrition Security** is worthy of emulation by other nations.

Swaminathan M.S. (2002) "Nutrition in the Third Millennium: Countries in Transition," Plenary Lecture, 17th International Congress on Nutrition, Vienna, 27-31 August.

Another facet of this problem emerging in Asia[6] is nutrition transition among population who faced severe undernutrition. Poor nutrition during fetal and infant development, combined with later periods of positive energy balance, is leading to problems of obesity and overweight in some sections of the population. In the island nations of Samoa, Nauru, Fiji and elsewhere in Melanesia, nearly half the populations exhibit at least Grade 2 obesity (BMI 30.00-39.99). Studies have reportedly shown a marked increase in the rate of consumption of sources of fat in the diets and consequent problems. (See Box 2)

Box 2. Of turkey tails dumping and health problems and ethics!

Disease and death from non-communicable disease are on the menu in many Pacific Island countries, thanks to the consumption of cheap, poor quality imported foodstuffs.

This menu often includes turkey tails from the US (fat-saturated bits of gristle and skin that used to go into pet food); lamb and mutton flaps from Australia and New Zealand (the loose bit from the end of a chop – previously processed into "blood and bone" fertilizer); and chicken frames (chicken carcasses after the meat has been stripped from them). Paul Zimmet, director of the International Diabetes Institute in Melbourne says: "What AIDS was in the last 20 years of the 20th century, diabetes is going to be in the first 20 years of this century. It is wiping out Nauru, the Marshall Islands, and Tonga. Name any island, and diabetes is its main health threat."

Last year Pacific islands imported nearly 28,000 tons of New Zealand lamb, and around 3,000 tons of mutton. Lamb and mutton flaps made up about 35% of these quantities. Papua New Guinea (PNG) imports mainly Australian mutton flaps, while NZ supplies the Western Pacific. What purpose do aid programmes serve when donor governments pursue and promote trade and economic policies, which further undermine the health of Pacific peoples? The deluge of imported food and disease can only increase. Meanwhile, the range of policy options available to Pacific Island governments to address these problems is shrinking rapidly as they commit to further market reforms and trade liberalization.

A 2001 World Health Organization report, "Globalization, diet and health: an example from Tonga" states: "Although educational programmes have increased awareness about healthy diets and nutritional foods, people in the Pacific nonetheless choose to consume less-healthy foods because of cost and availability (i.e. they make economically rational, but nutritionally detrimental, decisions to consume certain foods). Thus, poor diet is not simply a health or health education issue, it is also economic." Local, healthier, low-fat sources of protein like fish cost 15-50% more than mutton flaps and imported chicken and in many areas of Tonga are less easily purchased. Bread and rice are cheaper and more accessible than taro.

Extracts from "Killing me Softly", by Aziz Choudry, August 03, 2002
ZNet Commentary, http://www.zmag.org/sustainers/content/2002-08/03choudry.cfm

[6] Ibid. p. 2.

6.4 Intergenerational Equity

The concept of intergenerational equity has to come about due to the importance we place on sustainability. There is a need to renew and maintain genetic resources so that they exist during the time of our grandchildren. Legacy does not come on its own; people have to work to leave behind a legacy. The development process has to be sustainable over the long term and it must be equitable. The World Commission on Environment and Development has defined Sustainable Development as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The report highlights that the continued flagrant use of natural resources, worsening level of pollution and waste, and unabated poverty will lead to a noticeable decline in the quality of life. It prescribed the adoption of a development path that would enable us to meet our needs without compromising the ability of future generations to meet theirs.

South, Southeast, and East Asia face the challenge of fighting hunger and poverty in a scenario where agriculture-led broad-based economic growth has to take place under settings where the natural bases of production resources, such as land, water, and biodiversity, have shrunk, leading to widespread environmental and agro-ecological deterioration. Signs of degradation of bread baskets, such as the fatigued rice-wheat system in the Punjab in India, and other parts of South Asia, and irresponsible fishing and aquaculturing in the region, demand urgent attention.

Water availability is a matter of serious concern. In India, it is projected that the per capita water availability will reduce from 2001 m^3 to the stress level of 1700 m^3 in the next 2 to 3 decades. In particular, water availability to the agricultural sector will reduce from the present share of 89 to about 75 percent by 2020, necessitating the production of more and more with less and less water. The needs of other sectors for water cannot be ignored. Policy reforms are needed to address these disturbing trends. These reforms may include the establishment of secure water rights to users, the decentralization and privatization of water management functions to appropriate levels, pricing reforms, greater community participation, and the introduction of appropriate water-saving technologies through an integrated water use policy. Developing countries should critically examine the extant international initiatives and evolve their country-specific systems for judicious and integrated use and management of water.[7]

Climate change, global warming and their impact on agriculture, and vice versa, have emerged as new threats and challenges. Expected sea-level rise, estimated to be 15-94 cm during the next century, will adversely affect the coastal ecosystem.

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[7] Singh, R.B. (2002) "Science for Sustainable Food Security, Nutritional Adequacy and Poverty Alleviation in the Asia-Pacific Region," in Proceedings of MSRF-FAO Expert Consultation on Science for Sustainable Food Security, Nutritional Adequacy and Poverty Alleviation in the Asia-Pacific Region, MSSRF, Chennai.

Island states like the Maldives and Sri Lanka may face serious threats because of sea-level rise induced by global warming. It is also becoming increasingly clear that tropical and sub-tropical agriculture will be generally negatively impacted by adverse changes in temperature precipitation and the rise in sea level, thus further exacerbating the livelihood problems of developing countries in the region.

Recent global level studies have shown that about 80 years from now the average temperature will increase by 3 to 3.5 degrees Celsius and average precipitation by 2 to 4 percent. The studies have further revealed that India, with about one-sixth of the world's population, will be the biggest loser from global warming, losing tens of millions of tons of its potential cereal harvest each year because of climate change. An Indian study has shown that a 1 degree Celsius rise in temperature in North India would reduce the duration of the wheat crop by one week, thereby reducing yield by 500 to 600 kg per hectare.[8]

Anticipatory research, including conservation, characterization, and utilization of topical genetic resources, and use of biotechnology and other cutting-edge sciences to meet the challenges of global warming and climate change need to be initiated. The countries likely to be negatively impacted by climate change should collaborate not only in strengthening their relevant research and technology development, but also in their negotiations at various international forums.

With regard to biodiversity conservation, and due to economic and population pressures, genetic biodiversity resources are eroding fast. Moreover, their availability is getting increasingly restricted due to their propriety protection under several systems. The issues related to this aspect have been dealt with in Chapter IV.

6.5 Conclusion

The pervasive, accelerating and unabated environmental degradation in the region has to be strongly addressed by shaking off the "grow now, clean up later approach." Strong political commitment is needed to forge congruence between economic productivity and environmental improvement on the lines of the Brundtland Report recommendations.[9] The Report was primarily concerned with securing global equity, redistributing resources towards poorer nations whilst encouraging their economic growth. The report also suggested that equity, growth and environmental maintenance are simultaneously possible and that each country is capable of achieving its full economic potential whilst at the same time enhancing its resource base.

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[8] ibid. p. 7.

[9] Brundtland Commission Report, 1987.

Inequity has to be addressed using a community-based approach in collaboration with governments, and other related partners. An ethical approach to development calls for a bottom-up people-centred effort, as validated by several successful civil society initiatives in different parts of the region.

Future agricultural production programmes have to be based on a strategy that defends the gains already made, extends the gains with the use of yield enhancement technologies in rain fed, semi-arid and hill areas, and makes new gains through farming systems intensification, diversification and value addition, and institutional support by way of infrastructure and market linkages. Land and Water care, water harvesting, restoration of degraded and wasted lands, all need focused attention. Agriculture extension services should provide a viable mix of traditional and frontier technologies to farmers. On-farm and off-farm jobs/livelihoods, backed by good ecological practices, therefore, have to become the bottom line of all our economic and development policies. What we need today is an "Evergreen Revolution" through a blending of traditional and frontier technologies, and job-led economic growth rooted in the principles of environment protection, economic efficiency, social and gender equity and employment generation.[10]

[10] Swaminathan, M.S. (2001). "Food Security and Sustainable Development," Current Science, October.