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Triggering Debate – White Paper The Food System

**a prism of present and future
challenges for health promotion
and sustainable development**

With the kind support of Health Promotion Switzerland

This white paper has been authored by Ilona Kickbusch on behalf of Health Promotion Switzerland.

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“The most political act we do on a daily basis is choosing what to eat.”

Professor Jules Pretty, University of Essex, UK

“The silent hunger crisis – affecting one sixth of all of humanity – poses a serious risk for world peace and security. We urgently need to forge a broad consensus on the total and rapid eradication of hunger in the world.”

FAO Director-General Jacques Diouf

To promote health along with equity and sustainable development as top priorities in local, national and international policymaking

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List of Abbreviations

ADA	American Dietetic Association	OCHA	Office for the Coordination of Humanitarian Affairs
ADB	Asian Development Bank	OHCHR	Office of the High Commissioner for Human Rights
APHA	American Public Health Association	OHRLLS	UN Office of the High Representative for the Least Developed Countries; Landlocked Developing Countries and Small Island Developing States
ARNS	African Regional Nutrition Strategy	SF	San Francisco
CFS	Committee on World Food Security	SCN	Standing Committee on Nutrition
CGIAR	Consultative Group on International Agricultural Research	UN	United Nations
CSIS	Center for Strategic and International Studies	UNCTAD	United Nations Conference on Trade and Development
DALY	Disability-Adjusted Life Year	UNDP	United Nations Development Programme
DESA	Department of Economic and Social Affairs	UNEP	United Nations Environmental Programme
DPA	Department of Political Affairs	UNHCR	Office for the United Nations High Commissioner for Refugees
DPKO	Department of Peacekeeping Operations	UNICEF	United Nations Children's Fund
EIS	Environmental Impact Statement	USA	United States of America
FAO	Food and Agriculture Organization of the United Nations	USDA	United States Department of Agriculture
FDA	Food and Drug Administration	WB	World Bank
FFFI	Fresh Food Financing Initiative	WFP	World Food Programme
GAIN	Global Alliance for Improved Nutrition	WHO	World Health Organization
GECFS	Global Environmental Change and Food Systems	WTO	World Trade Organization
GM	Genetically Modified	WTO-AoA	World Trade Organization Agreement on Agriculture
HO	Health Organizations		
IDB	the Inter-American Development Bank		
IFAD	International Fund for Agricultural Development		
IFPRI	International Food Policy Research Institute		
IHR	International Health Regulations		
ILO	International Labour Organization		
IMF	International Monetary Fund		
IUHPE	International Union for Health Promotion and Education		
MDGs	Millennium Development Goals		
NCDs	Non-Communicable Diseases		
NFA	National Food Administration		
NGO	Non-governmental organization		
NHANES	National Health and Nutrition Examination Survey		
NYC	New York City		

1 Introduction

In the 21st century, the purpose of governance should be healthy and sustainable development. There is a growing recognition of the significance of building a bridge between the health promotion agenda and the sustainability agenda: *in many cases, the best choices for health are also the best choices for the planet; and the most ethical and environmental choices are also good for health*. But too frequently, the two agendas are dealt with in separate debates and policy arenas. There has not yet been a deep enough effort to link the two agendas and to ensure that they support each others' normative and strategic goals in a more systematic manner.

There is also growing awareness of how interconnected many of the major challenges that we face at the beginning of the 21st century are – and policy makers know that working in silos or only at the national level does not provide solutions. Yet it remains difficult to engage other sectors in joint policy action at all levels of governance, in particular around “wicked problems” for which there is no easy or quick solution. This applies in particular to the greatest challenge in today's world, the increasing inequity between and within countries – with the burdens of unsustainable development falling disproportionately on the poorest. It is therefore one of the key goals of the **healthy3 initiative** to move from a “silo” to “systems” approach. Health promotion has always been dedicated to working with others: health is everybody's business. Ensuring a commitment to health across government and by many different societal actors is critical for addressing the major social determinants of health. For many human beings, it is good governance that makes the difference between life and death – it provides access to education, health care, social protection, the rule of law and participation in the economy. It is from this understanding that policy concepts such as *health in all policies* and *investment for health*, approaches such as *health in the settings of everyday life*, and instruments such as *health impact statements* have been developed. Based on these experiences, the **healthy3 initiative** wants to take health promotion concepts and strategies one step further by exploring three questions:

1. How can joint policy goals be developed so that health promotion can contribute to addressing major challenges facing humankind such as food, water, fuel, changing consumption patterns, climate change and the environment?
2. Through which strategies can a high level of complementarity and integration be achieved between health and the environmental, economic and social impacts?
3. What conceptual framing and common language can help move a shared agenda forward?

The series of white papers, initiated on occasion of the 2010 IUHPE Conference, will look at a set of 21st century challenges and explore the interfaces between policy agendas so as to explore commonality of purpose and shared policy solutions.

This first paper deals with the food system as a prism of present and future challenges for health promotion and sustainable development, and sets the attainment of a sustainable food system – “a system that can supply safe, healthy food with positive social benefits and low environmental impacts” (Ambler-Edwards et al., 2009) – as the joint policy goal. It is aimed both at the health promotion and the sustainable development community.

2 The conceptual base of the health promotion and the sustainable development agenda

“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”

(Rio Declaration, 1992, first principle)

2.1 Conceptual considerations

In order to enable a dialogue, it is important to develop an understanding of the conceptualizations of both health promotion and sustainable development.

Both concepts have evolved in the last decades and there is a rich debate and literature which cannot be reflected fully in this paper. Yet some important common features can be highlighted. Both health promotion and sustainable development are **normative concepts** which aim to bring about a significant paradigm shift in how societal development is understood: they aim at nothing less than to redefine the interface of society with biological and ecological systems. Both conceptualizations want to achieve **transformative change** in society and propose new **governance mechanisms** in different sectors and spheres of activity. It has been said that sustainable development is perhaps *“the most challenging political concept that has been developed to guide government action”* (Spangenberg, 2003). Within the health arena, a similar statement can be made for health promotion.

This paper will therefore attempt to focus in particular on governance challenges that arise in relation to food, health promotion and sustainable development.

Governance: *Is the conscious creating, shaping, steering, strengthening and using of international and transnational institutions and regimes of principles, norms, rules and decision-making procedures that influence how autonomous actors behave (Krasner, 1983).*

Governance is a neutral concept comprising the complex mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise

their rights and obligations and mediate their differences (UNDP Glossary).

Health governance: *The actions and means, adopted by a society, to organize itself in the promotion and protection of the health of its population (Dodgson, Lee & Drager, 2002).*

Environmental governance *is best understood as the establishment, reaffirmation or change of institutions to resolve conflicts over environmental resources. It also explains why the choice of these institutions is a matter of social justice rather than of efficiency (Paavola, 2007).*

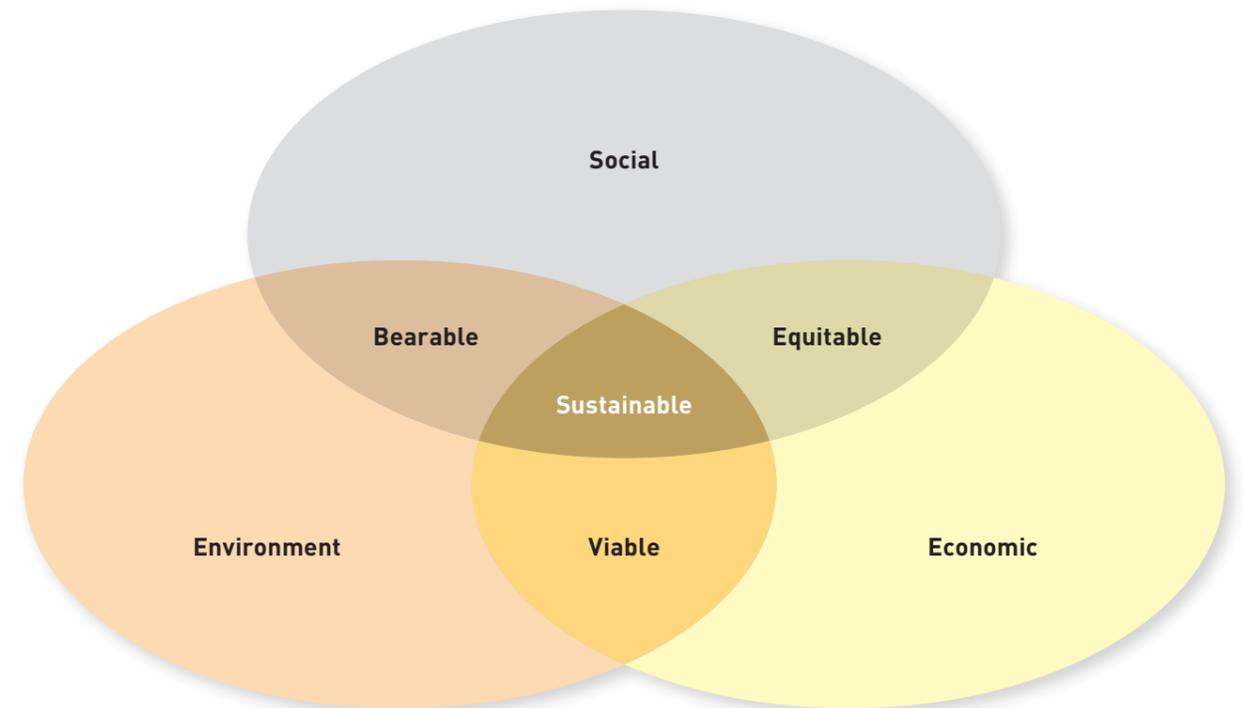
2.1.1 Sustainable development

The concept of sustainable development is more than “sustainability”. While sustainability is frequently understood as durability in terms of programme implementation, sustainable development implies a paradigm shift from a model of development based on inequity and exploitation of resources to one that requires new forms of responsibility, solidarity and accountability not only at the national but also at the global level.

Glossary: *“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs” (Our Common Future – Brundtland Report, 1987).*

This approach has frequently been represented as the interaction between three pillars or three circles: economy, society and the environment – as in the following illustration:

Fig. 1: Visual Representation of Sustainable Development – Interlocking Circles
(Source: IUCN, 2006)



The **governance challenge** of sustainable development involves:

- a commitment to equity within and between societies and between generations,
- the responsible use of resources and
- policy approaches that recognize the interdependence between sectors.

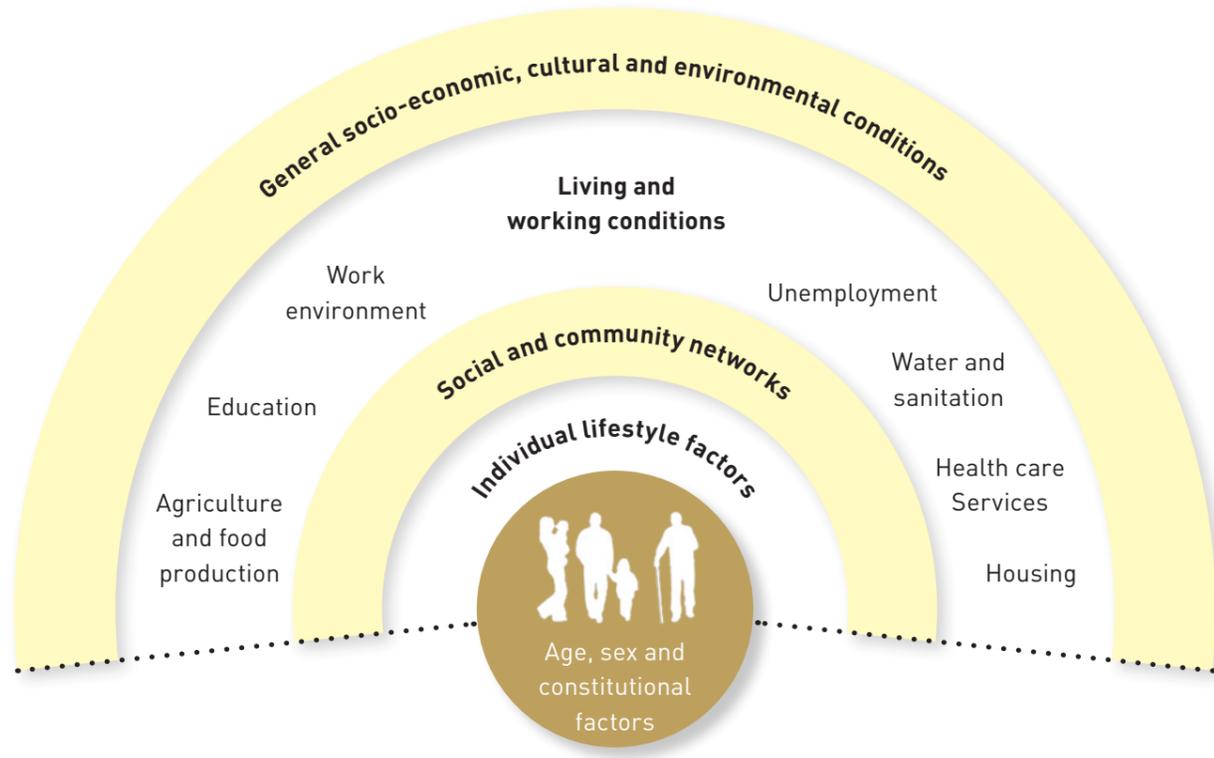
2.1.2 Health promotion

Health, according to the Ottawa Charter (1986), is created in the context of everyday life – that means it is part of the social dynamics of social organization, lifestyles and patterns of consumption, but also (and this is frequently neglected) part of the interaction with the bio-physical environment. Figure 2 (Dahlgren & Whitehead, 1991) illustrates the original conceptual model on which health promotion is based. People are in the center of a complex web of individual, social, economic, cultural and environmental factors which impact on their health and well-being.

Glossary: *Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being (Ottawa Charter, 1986).*

Health promotion implies a paradigm shift from a deficit model of health focused on disease (the biomedical model) to a socio-ecological model aimed at strengthening resilience and assets for health – in particular by addressing the social determinants of health and the capabilities for health.

Fig. 2: Factors that influence our health
 (Source: Dahlgren & Whitehead, 1991)



Glossary: Determinants of health refer to the many factors which combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and environment. The determinants of health include: the social and economic environment, the physical environment and the person's individual characteristics and behaviours (www.who.int/hia/evidence/doh/en). Capabilities, referred to as functional, are construed in terms of the substantive freedoms people have reason to value, instead of utility. They include happiness, desire-fulfillment, choice or access to resources. The emphasis is not only on how human beings actually function but on their having the practical choice, to function in important ways if they so wish (Sen, 1979).

Health Promotion considers health a human right and is deeply committed to equity, social justice and empowerment. The **governance challenge** of health promotion involves:

- a commitment to health equity within and between societies through action on the social determinants of health,
- investment for health as a valuable resource for individuals, communities and societies – indeed for the global community as a whole,
- horizontal policy approaches – health in all policies – that recognize the value of health in all sectors and are accountable for health impact.

2.1.3 Linking health promotion and sustainability
Sustainability and health promotion share important similarities with regard to their normative and conceptual base as well as their integrative approaches to governance.

There has been a gradual convergence and overlapping of agendas (Dooris, 1999) and an evolution of thinking in both arenas. Yet the two frameworks con-

tinue to develop largely in parallel – also because they have frequently been too narrowly conceived as dealing with “health” and “environment” respectively rather than as normative concepts with major similarities in their implications for governance. **Clearly, sustainability is a “larger” agenda than health promotion as it constitutes a general principle on how we organize our societies overall.** Health promotion continually challenges health policy with a socio-ecological perspective on how we organize health in our societies in a more sustainable manner. Its commitment to a social concept of health creates a special affinity to the concept of social sustainability. Yet, health promotion needs to engage more systematically in approaches which create a complementarity between health and the environmental, economic and social dimensions of sustainable development.

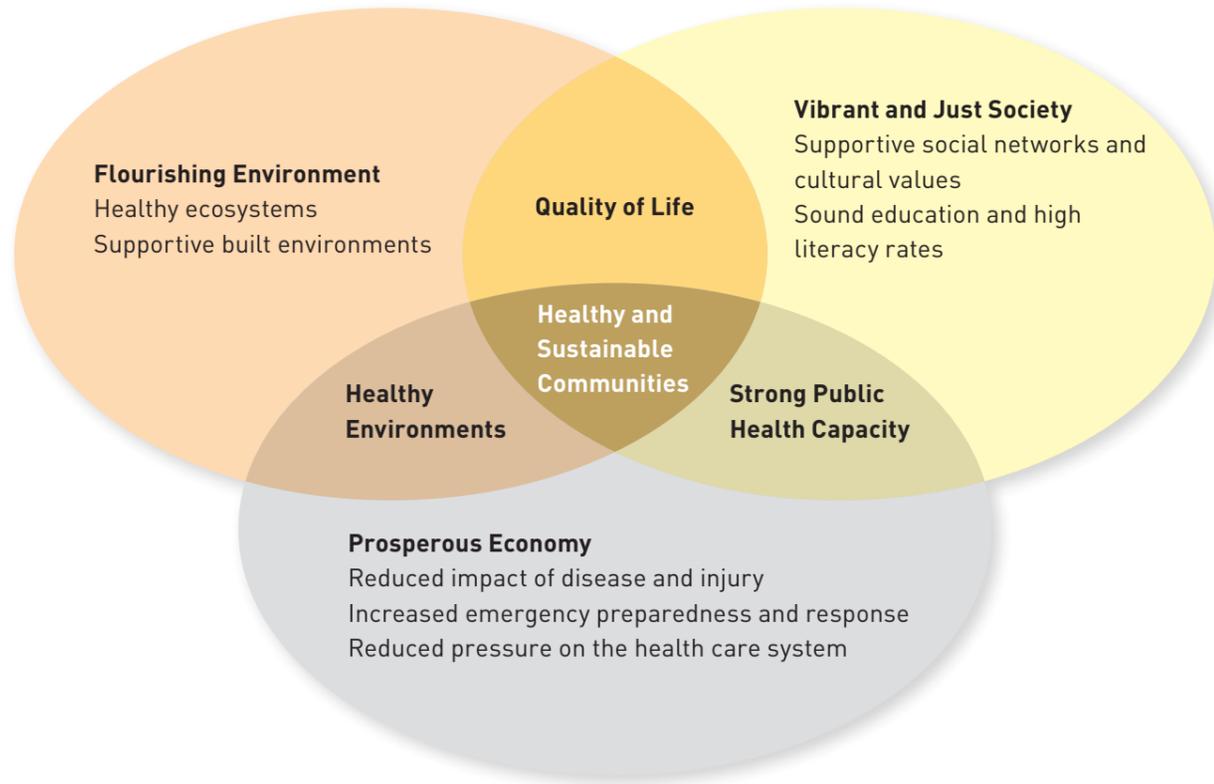
Background: While some principles of what later came to be understood as a sustainability agenda were already expressed in the Health for All principles of the World Health Organization in the late 1970ties, the Ottawa Charter for Health Promotion in 1986 was one of the first health documents to make explicit reference to the responsible use of resources. It states: “The overall guiding principle for the world, nations, regions and communities alike, is the need to encourage reciprocal maintenance – to take care of each other, our communities and our natural environment. The conservation of natural resources throughout the world should be emphasized as a global responsibility.” The third World Health Conference on Health Promotion – organized jointly by the WHO and the UNEP in 1991 in Sundsvall Sweden – was dedicated to this principle which, in the health promotion debate, has been referred to as the socio-ecological model of health. The Sundsvall Declaration on Supportive Environments for Health was adopted and taken to the Rio Earth Summit in 1992. It was one of the documents that contributed to the inclusion of health in the Agenda 21 document, with Chapter 6 focusing on Protecting and Promoting Human Health. Since then, public health agencies and health promotion organizations around the world have responded to the global sustainable development agenda as well as to the sustainability policies of their respective national governments and local authorities. References to population health are frequently found under the heading of social sustainability.

2.2 Integrating Public Health and Sustainable Development Concepts

For health promotion, the first principle of The Rio Declaration (1992) is of eminent importance: “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.” This sentence resonates with the Declaration of Alma Ata (1978) which frames health as contributing to a socially and economically productive life. Health is both an outcome of key determinants and a contribution to societal development and well-being. The determinants-based approach makes it easy for health promotion to relate to the concept of sustainability, and to the three pillars of sustainable development as they have been summarized by many authors – economic, social and environmental. To date, most attempts to link health promotion and sustainability reflect thinking similar to the approach illustrated in Figure 3 from the Public Health Agency of Canada (originally developed by Hancock, 1993).

Fig. 3: Relationship – Public Health and Sustainable Development

(Source: Public Health Agency of Canada)



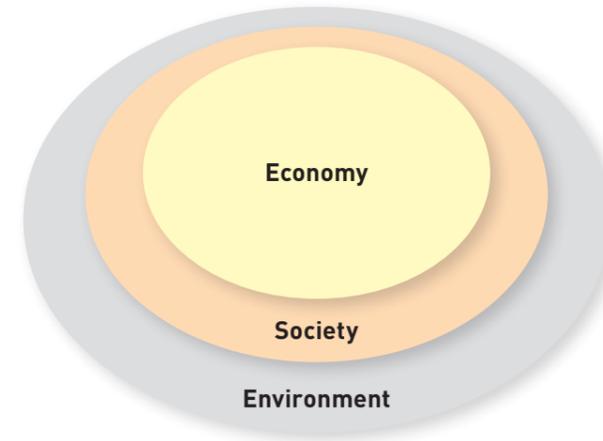
Such a model takes the three pillars of sustainable development – economy, society and environment – and considers their interdependence and interaction as the key determinants for the creation of “*healthy and sustainable communities*”, reflecting more or less the first principle of the Rio Declaration. One of the most important contributions by health promotion to integrating frameworks and building a joint agenda between health promotion and sustainability was the Healthy Cities Project, launched in 1987, which contributed significantly to the dissemination of health promotion concepts and approaches worldwide.

Glossary: A healthy city is defined as a city that is continually creating and improving physical and social environments and expanding community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential (Health Promotion Glossary, 1998).

Some of the proponents of the concept of sustainability would consider the understanding and application of sustainable development – through the three overlapping circles – as expressed in Figure 1 and Figure 3 as not far reaching enough. Figure 4 (Ott, 2003) illustrates a more integrated view which brings social and environmental dimensions into a closer interdependence, positioning economic activity within society and recognizing that all social action takes place within a bio-physical environment. This viewpoint is remarkably close to the health promotion model described above. Human health, both as an outcome and a critical resource, could then be positioned in the innermost circle.

Fig. 4: Representation of Sustainable Development – Concentric Circles

(Source: Ott, 2003)



Both health promotion and sustainable development contribute to shifting the discourse on 21st century risks and challenges, often with the same aim but with different starting points.

Many of the same driving forces and political factors need to be addressed in order to affect the transformative change explicitly sought in both concepts. In particular, the healthy cities movement and the sustainable cities movement have shown that many policy and action proposals for greater well-being and quality of life at the local level reach similar conclusions irrespective of whether a health (promotion) lens or a sustainability lens is applied. In the sustainability debate, this has been expressed as follows: “*Achieving progress toward sustainability thus implies maintaining and preferably improving, both human and ecosystem well-being, not one at the expense of the other. The idea expresses the interdependence between people and their surrounding world*” (Hodge & Hardi, 1997). Indeed, the term “**well-being**” – as used both in this understanding of sustainability and in the WHO Constitution and the Ottawa Charter (1986) – offers itself as the better metaphor of joint discourse (Labonté, 1991). **Well-being describes the common goal for joint action.**

3 How food links health promotion and sustainable development

3.1 The food system

The food system can be considered a prism of the interface between the sustainability agenda and major public health challenges that health promotion aims to address.

A food system governs what we eat; and there has been increasing concern at all levels of governance and in different policy sectors, civil society, academia and business that the food system today is not sustainable and endangers both health and the future of the planet.

Glossary: "Food systems encompass (i) activities related to the production, processing, distribution, preparation and consumption of food; and (ii) the outcomes of these activities contributing to food security, food availability, food access and food utilization. Food systems also contribute to a range of other socioeconomic (e.g. wealth) and environmental (e.g. greenhouse gas emissions) issues" (Global Environmental Change and Food Systems Online).

The sum of all the processes in a food system is sometimes referred to as a *food chain*. The linear presentation of a food chain (from farm to fork) can be misleading because it neglects simultaneously interacting processes, complex cause and effect relationships and feedback loops. For consumers, the sequential concept of the food chain can sometimes be more easily understood but it can also obscure the real dynamics that drive the food system. A household's food system comprises all the food chains it participates in to meet its consumption requirements and dietary preferences, and all the interactions and feedback loops that connect the different parts of these chains. There are many possible visualizations of a food system, which can mainly be differentiated by their level of complexity. Figure 5, a model developed for the Northeast Network for Food, Farm and Health Policy Education, shows this complexity: it combines the linear model from resources to wastes within the biophysical, socio-cultural, and economic-political spheres, which greatly influence the food system and

are, in turn, influenced by it (Northeast Network for Food, Farm and Health Policy Education). Figures 6 and 7 show more circular models of the complex interactions.

3.2 The links between food, health and sustainable development

The promotion of a more sustainable, healthier, and more equitable food system is a primary public health goal. From a public health and health promotion perspective, the long standing concern with food, nutrition and diet must be widened to an approach that is concerned with the food system in its many dimensions.

The link between food, health and sustainable development has been well formulated by the American Public Health Association in a major policy statement (APHA, 2007). Similarly, the American Dietetic Association, in its position statement, encouraged environmentally responsible practices geared towards the conservation of natural resources, the reduction and management of waste, and the support of the ecological sustainability of the food system (ADA, 2007). Such a sustainable food policy needs to take a systems approach and address both the unsustainable production as well as the unsustainable consumption of food, as both contribute to the significant negative health and environmental impact.

Glossary: A "sustainable food system" is "one that provides healthy food to meet current food needs while maintaining healthy ecosystems that can also provide food for generations to come with minimal negative impact to the environment. A sustainable food system also encourages local production and distribution infrastructures and makes nutritious food available, accessible, and affordable to all. Further, it is humane and just, protecting farmers and other workers, consumers, and communities" (APHA, 2007).

The priority goal of health promotion with regard to healthy food must be to contribute to the establish-

Fig. 5: The Food System – linear model

(Source: Northeast Network for Food, Farm and Health Policy Education)

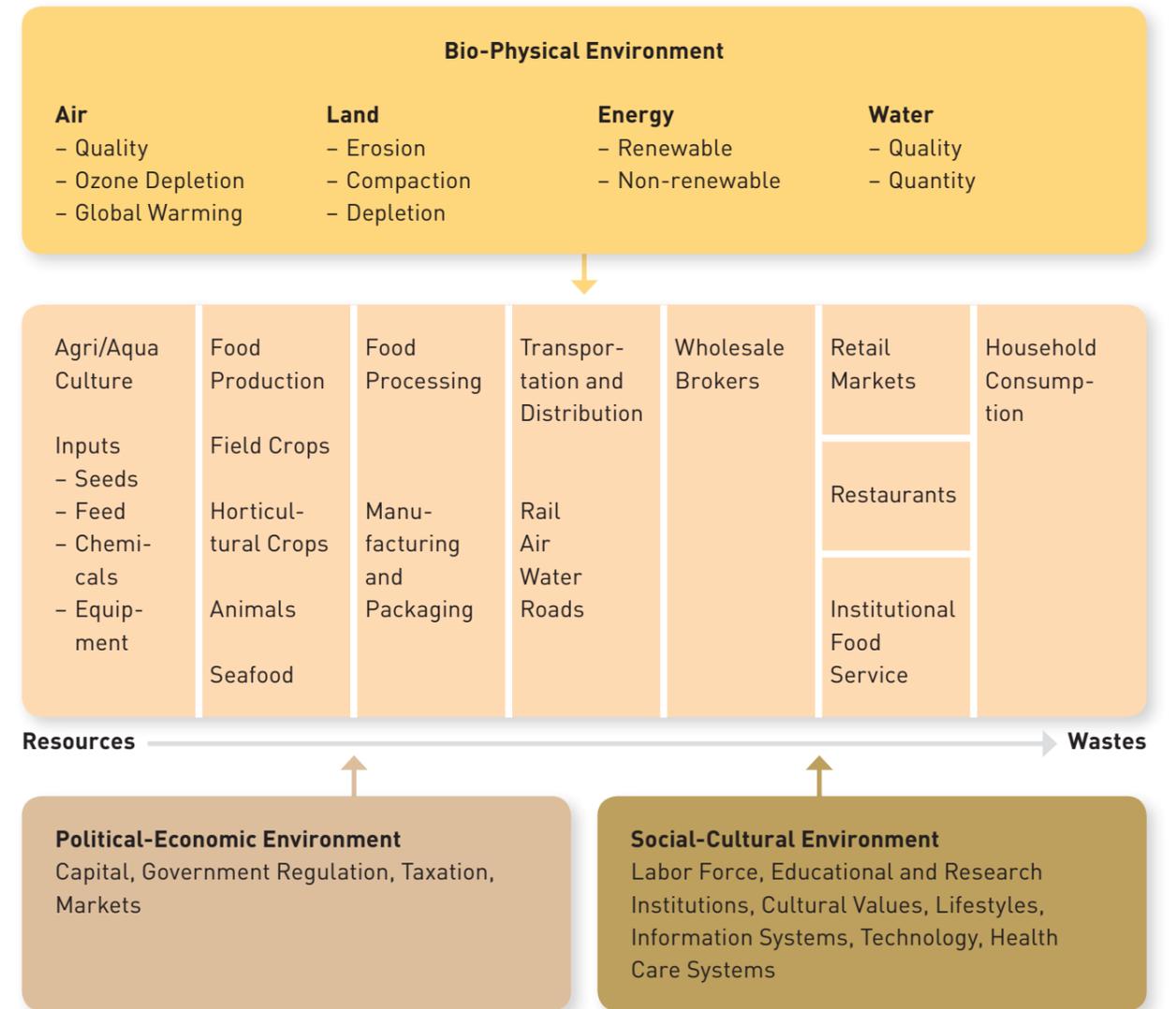


Fig. 6: The Food System – circular model

(Source: City of Vancouver, 2009)

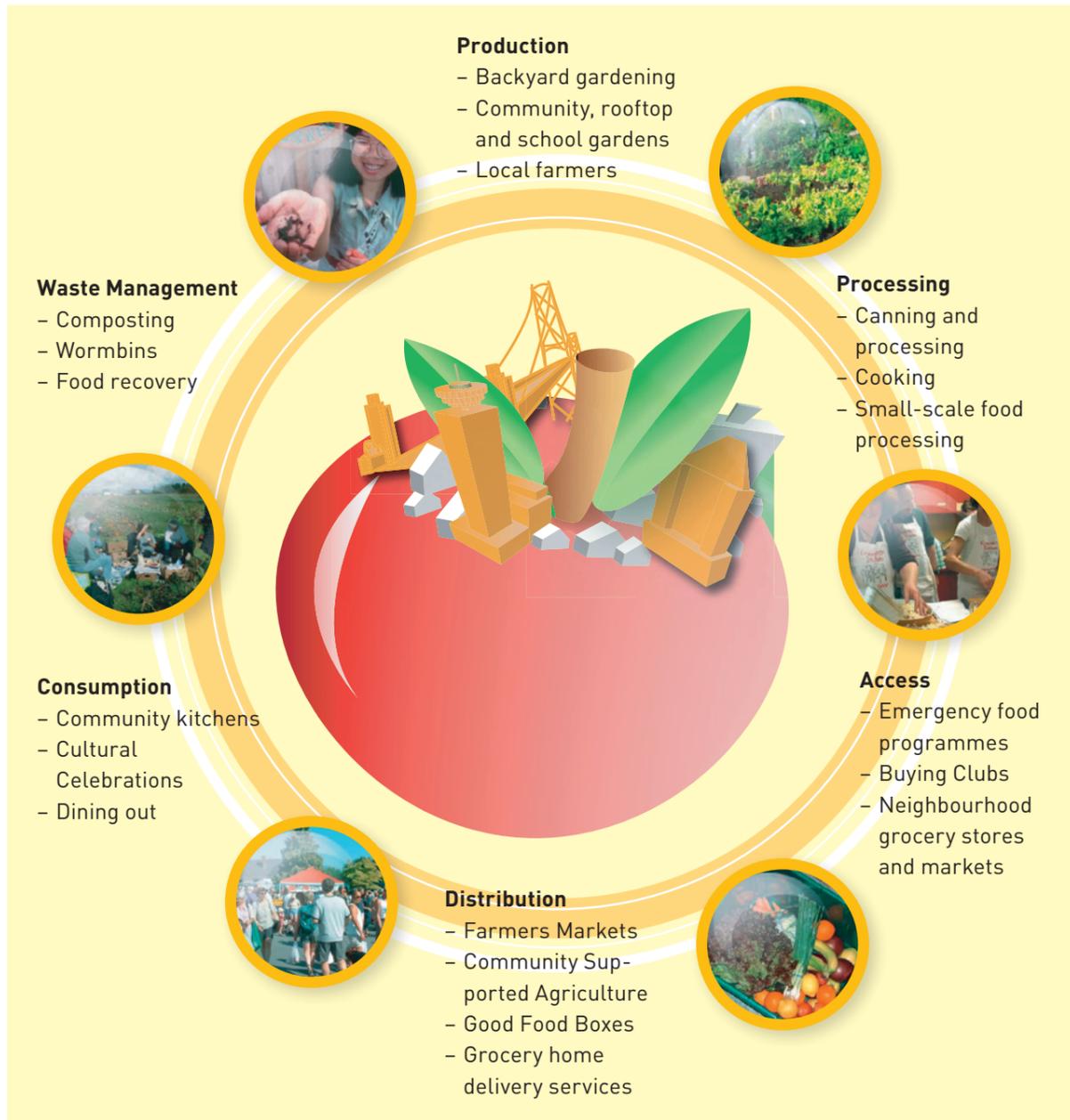
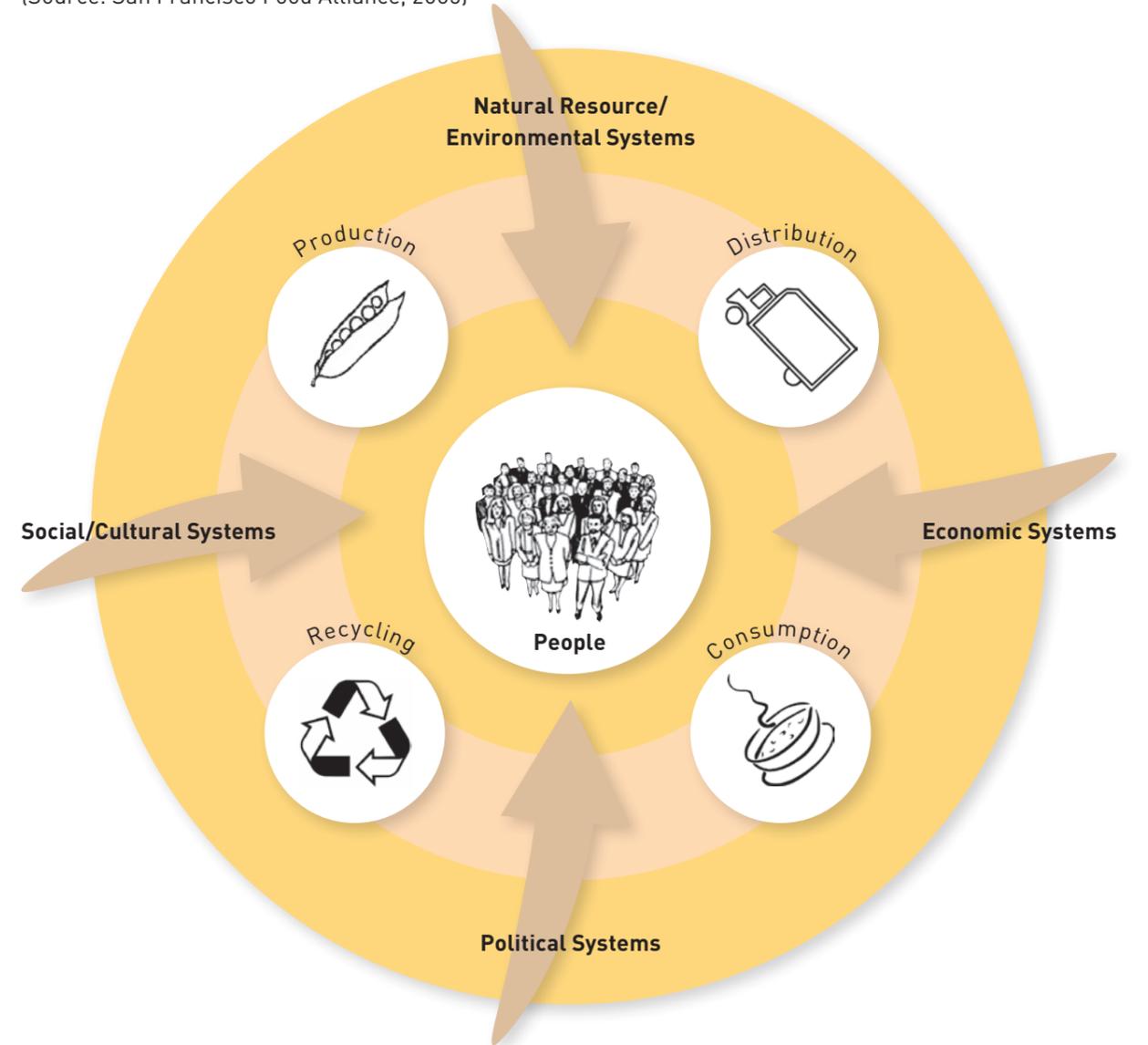


Fig. 7: The Food System – circular model

(Source: San Francisco Food Alliance, 2005)



ment of a more sustainable, healthier, and more equitable food system in which *choices for health are also the best choices for the planet and to support ethical and environmental choices that are also good for health*. Health promotion must be concerned with how food is governed, produced, distributed and consumed. Healthy food as a priority for healthy public policy must be positioned not only in relation to consumers and their choices but with reference to wider drivers of the food economy.

3.3 The challenges: equity, health, sustainability

3.3.1 A more equitable food system

Food as a determinant of health, well-being and productivity

The number of people lacking access to food has risen. There are also major concerns that in view of demographic change – by 2040 the planet will host 9 billion people – these already dramatic figures will increase exponentially. A recent report (Heinberg

and Bomford, 2009) also shows the interface between the energy crisis and the food crisis: the dependency on fossil fuels of our present food system – both in production and distribution will present a major risk to food security.

Food is critical for survival – healthy food would be regarded by many as the single most important determinant of health. The Millennium Development Goals have as their first goal to ERADICATE EXTREME POVERTY & HUNGER (UN, 2005). Worldwide, the hungry amount to more than 1.02 billion people (FAO, 2009). They lack the most critical determinant of health.

The present food economy does not deliver enough food to major parts of the growing world population, despite enormous growth rates. About 70% of the world's poor depend on agriculture for their livelihood but the global food economy has contributed to destroying local farming systems and livelihoods. Food insecurity in both the developing and the developed world has worsened and this highlights major inequities as well as paradoxes and tensions between scarcity and affluence.

With recent increases in food prices, it is estimated that 1 billion people will go hungry, while another 2 billion will be undernourished. According to the World Bank, the rise in the prices of various staples has recently pushed thirty-three countries into food crises. FAO estimates an increase of 75 million in the number of undernourished people, bringing the number from 854 to 923 million (FAO, 2008). That is about one seventh of the world population.

For many people in the developing world, food and water are not safe. Over 200 disease agents can be transmitted through food and water and while they are an integral part of many public health and development strategies, they do not get the same attention as some of the highly prioritized infectious diseases such as HIV/AIDS, tuberculosis or malaria. For example, globally there are 1.8 million deaths a year from diarrhoea through contaminated food and water, deaths that occur mainly in very poor and disadvantaged communities (WHO, 2005). The food-borne illnesses through lack of food safety (due to patterns of unsustainable food production and consumption) need to receive more attention. It is the poor who suffer disproportionately from infectious

food-borne illnesses and from pathogens and pesticide residues in food.

Climate change is a significant and emerging threat to all countries but hits the poorest countries hardest. Many important diseases are highly sensitive to changing temperatures and precipitation, and this contribution is expected to grow in the future. Threats include common vector-borne diseases such as malaria and dengue; as well as other major killers like malnutrition and diarrhoea. The inter-linkage between animal health and pandemic threats is also increasing. There is an increasing danger of food-borne and animal-borne outbreaks which are linked to the present system of food production and distribution. For instance, current high-density animal production operations have been associated with increased livestock disease outbreaks; with such incidences as the influenza A virus in Hong Kong chicken facilities in 1997 that killed 6 humans and led to the destruction of 1.2 million birds and the mad cow disease in 1996 that led to the slaughter of 11 million animals and the destruction of 1.2 million animals at the onset of the foot and mouth outbreaks in 2001 (Tilman et al., 2002). Climate change is also predicted to cause major crop losses in the world's poorest regions (Nelson et al., 2009).

The biotechnology revolution is, by far, the most controversial chapter in agricultural science. The enhanced agronomic traits of Genetically Modified (GM) crop may potentially increase agricultural yield; thus playing a major role in the reduction of hunger and the increase in food security in the developing world (WHO, 2005; Runge et al., 2003). However, the current debate on GM crop revolves around its potential risk as compared to crops modified through conventional breeding (Applegate, 2001; NRC, 2000; IFT, 2000; Hollingworth, 2003; NAS, 2000); including the potentially negative effects on plant biodiversity and herbicide resistance (Watkinson et al., 2000; Dale et al., 2002; Madsen and Streibig, 2003); intellectual property rights and problems in assuring equal access to genetic resources particularly to developing countries (WHO, 2005); and the link between GM seed industry, energy-intensive technologies and fossil-fuel based food system (Heinberg and Bomford, 2009). As precautionary measures, some countries have instituted guidelines or legislation for

mandatory premarket risk assessment of GM crop; and at the international level, the Codex Alimentarius Commission (CAC, 2001; 2003) and the Cartagena Protocol on Biosafety (CPB, 2000) cover food and environmental safety of biotechnology.

Undernutrition is responsible for more than a third of all deaths of children under the age of five worldwide. The number of children in developing countries who were underweight still exceeded 140 million in 2006 (UN, 2008). This is often referred to as a hidden epidemic. A significant dimension of this epidemic is "hidden hunger" – the lack of micronutrients which can lead to blindness, low birth weight and stunted growth. Southern Asia alone accounts for more than half the world's undernourished children; least progress in reducing child malnutrition is in sub-Saharan Africa.

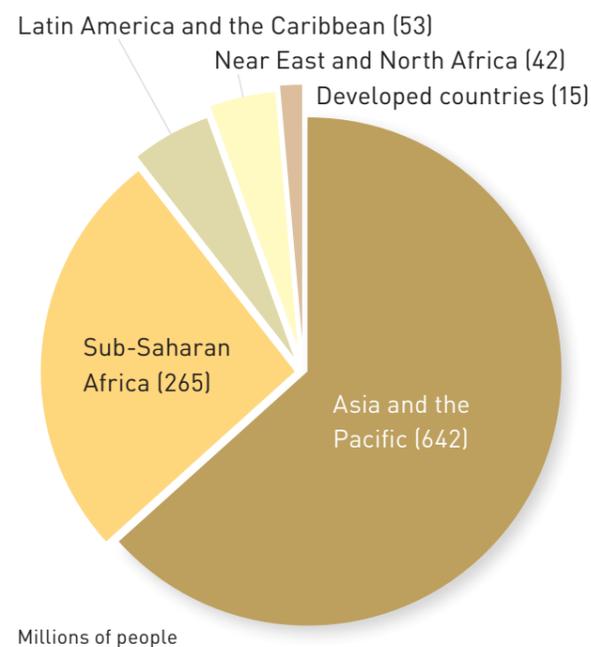
***Glossary:** Many factors can cause malnutrition, most of which relate to poor diet or severe and repeated infections, particularly in underprivileged populations. Inadequate diet and disease, in turn, are closely linked to the general standard of living, the environmental conditions, and whether a population is able to meet its basic needs such as food, housing and health care. Malnutrition is thus a health outcome as well as a risk factor for disease and exacerbated malnutrition, and it can increase the risk both of morbidity and mortality (WHO, 2005). The Global Alliance for Improved Nutrition (GAIN), with its population-based and targeted programmes, aims to reduce malnutrition through food fortification and other sustainable strategies. Its innovative partnership projects in 26 countries deliver fortified foods to over 200 million people at risk and plans to reach one billion. More than half of these individuals are women and children (www.gainhealth.org/about-gain).*

There is an increase in child poverty in the developed nations (UNICEF, 2008). Here too, there is evidence that children go hungry and that poor nutrition due to income inequalities results in health disparities throughout the lifespan. In Russia and Ukraine, for example, one child in seven was malnourished, while in Albania, Uzbekistan and Tajikistan, the figure rose to one in three (UNICEF, 2001). In the USA, figures indicate that 8% of children under the age of 12 experienced hunger (Wehler, 1995).

The combined economic impacts of such individual underdevelopment through poor nutrition are sig-

Fig. 8: Undernourishment in 2009, by region

(Source: FAO, 2009)



nificant. Experts agree that the effects of poor nutrition are life-long, intergenerational and irreversible; they include reduced life expectancy, impaired cognitive development, impaired immunity, and increased maternal and child mortality. The global cost burden is estimated at \$180 billion annually. The 10-year productivity loss from iron deficiency alone is estimated at \$25 billion in 5 Asian countries (ADB, 2004). This puts into question health gains for the next generation. It is estimated that better nutrition could save China and India \$5 billion and \$2.5 billion respectively, in terms of savings in health care costs, with indirect gains for productivity (Shekar and Lee, 2006).

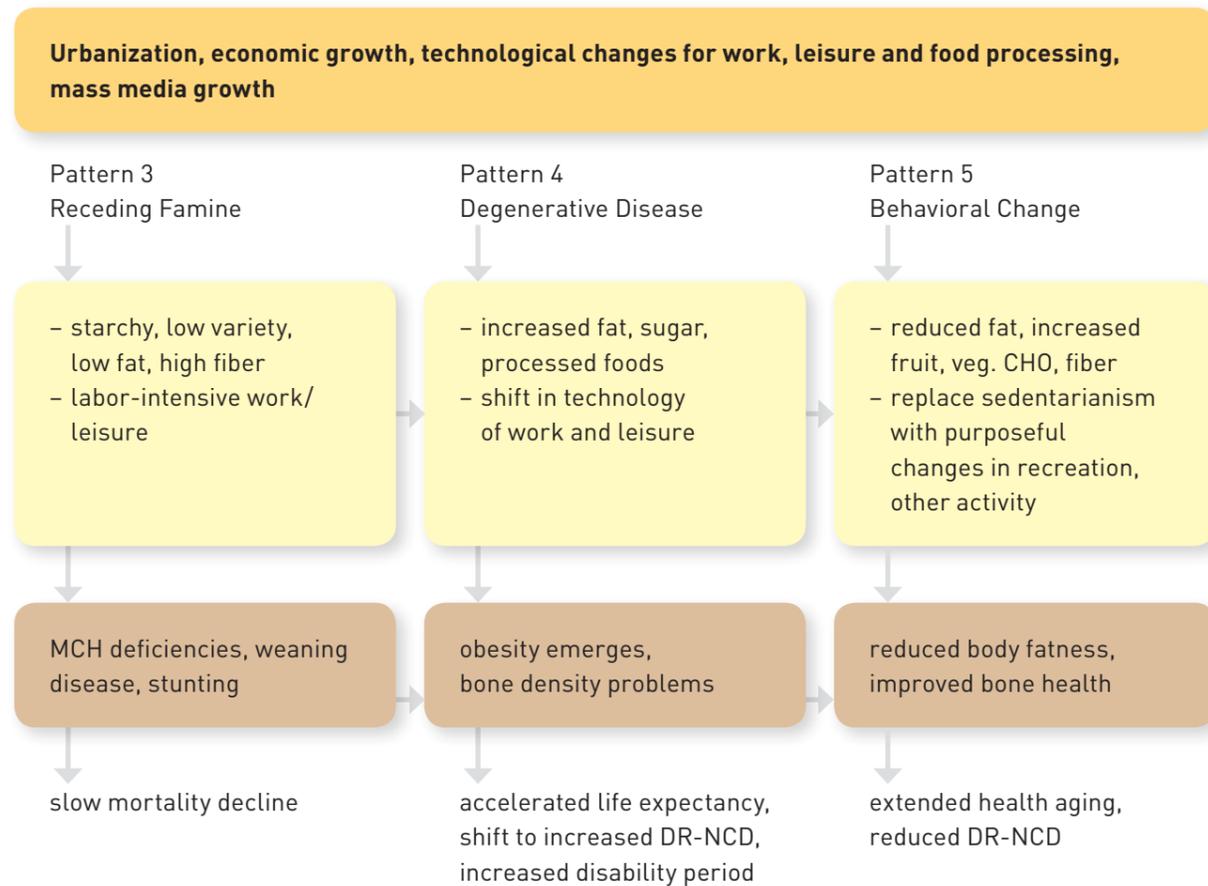
3.3.2 The challenge: a healthier food system

The nutrition transition and the rise of chronic disease

Large shifts have occurred in dietary and physical activity and inactivity patterns – these are referred to as the nutrition transition. These changes are reflected in nutritional outcomes, such as changes in average stature and body composition. Modern societies seem to be converging to a pattern of diet high in saturated fat, sugar, and refined foods and low in fiber, often termed the “Western diet”. Many see this dietary pattern to be associated with high levels of chronic and degenerative diseases and with reduced disability-free time.

Fig. 9: Stages of the Nutrition Transition

(Source: Popkin, 2002)



Changes in the way food is produced and consumed – combined with low levels of physical activity – have led to a global epidemic of chronic disease –

in particular in the developed world but increasingly also in the emerging economies. Many low- and middle-income countries are facing a nutrition transition as they too are subject to “the most radical change to the way humans eat since the discovery of agriculture (Pollan, 2008).” WHO projects that by 2015, approximately 2.3 billion adults will be overweight and more than 700 million will be obese (WHO, 2006a). Overweight and obesity are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer. It is estimated that today almost 80% of the 246 million people with diabetes live in the developing countries (UN, 2006).

Malnutrition and obesity often exist side-by-side within the same country, the same community and even within the same household in resource poor settings. The health systems of developing countries are frequently ill prepared and do not have the resources to deal with this “double burden of disease” which paradoxically is one of the outcomes of the rapid economic growth in many of the countries concerned. A projection of disease burden for low-income countries predicts that, in 2030, NCDs will contribute to half of the total burden of disease (Mathers and Loncar, 2006).

Food systems that promote increased food intake, non healthful foods, and together with physical inactivity lead to “obesogenic societies”. The United States is such a society: since the mid-seventies, the prevalence of overweight and obesity has increased sharply for both adults and children. Data from two NHANES surveys (CDC) show that among adults aged 20–74 years, the prevalence of obesity in the USA increased from 15.0% (in the 1976–1980 survey) to 32.9% (in the 2003–2004 survey).

The obesity epidemic puts into question the health gains for the next generation. According to the World Health Organization, childhood obesity is one of the most serious public health challenges of the 21st century. Its prevalence has increased at an alarming rate. In 2007, an estimated 22 million children under the age of 5 years were overweight throughout the world. More than 75% of overweight and obese children live in low- and middle-income

countries. The distribution of obesity is significantly related to social inequalities and the predominance of certain obesity industries and **obesogenic environments** which in turn reinforce new patterns of food consumption.

Glossary: *Obesogenic environments: A set of circumstances that encourages people to eat and drink more calories than they expend and to become obese (www.nhs.gov.uk/content/default.asp).*

Healthier diets could save millions of lives every year and support the environment. A central concern is the increasing demand for animal protein worldwide with consequences for livestock management and water use. If the American level of meat consumption (217 pounds per year) were to be replicated worldwide, the global grain harvest could just support 40% of the present world population (Roberts, 2009). Conversely, if such a meat-based diet were to be replaced globally by a well-balanced plant-based diet, a growing global population could be fed without additional strain on the environment and without increased cost of food (Duchin, 2005).

The World Health Organization in its *Global Strategy on Diet, Physical Activity and Health* (endorsed by the May 2004 World Health Assembly) recommends diet low in meat, rich in fruits and vegetables, low in added sugar and limited salt, and low in saturated fatty acids. The Mediterranean diet and the Japanese diet are both low in meat and saturated fats and high in legumes and other vegetables; they are associated with both a low incidence of disease and low environmental impact. The UK Cabinet Office has published a broad-ranging analysis of food trends and issues. Diets with less animal and dairy products, fish from sustainable sources and seasonal field-grown and locally produced fruits and vegetables were recommended for reducing environmental impact (SDC, 2009). Similar findings were reached by others through life-cycle analysis of food products (Carlsson-Kanayama, 1998; Kramer et al., 1999; Brower and Leon, 1999; Jungbluth et al., 2000). In order to identify measures to reduce the environmental impact of the production process, the Department for Environment, Food and Rural Affairs, in the United Kingdom, has also

started working with the industry on the development of roadmaps for various food items (DSCF as cited in SDC, 2009).

3.3.3 The challenge: a more sustainable food system

The combined negative health and environmental impacts

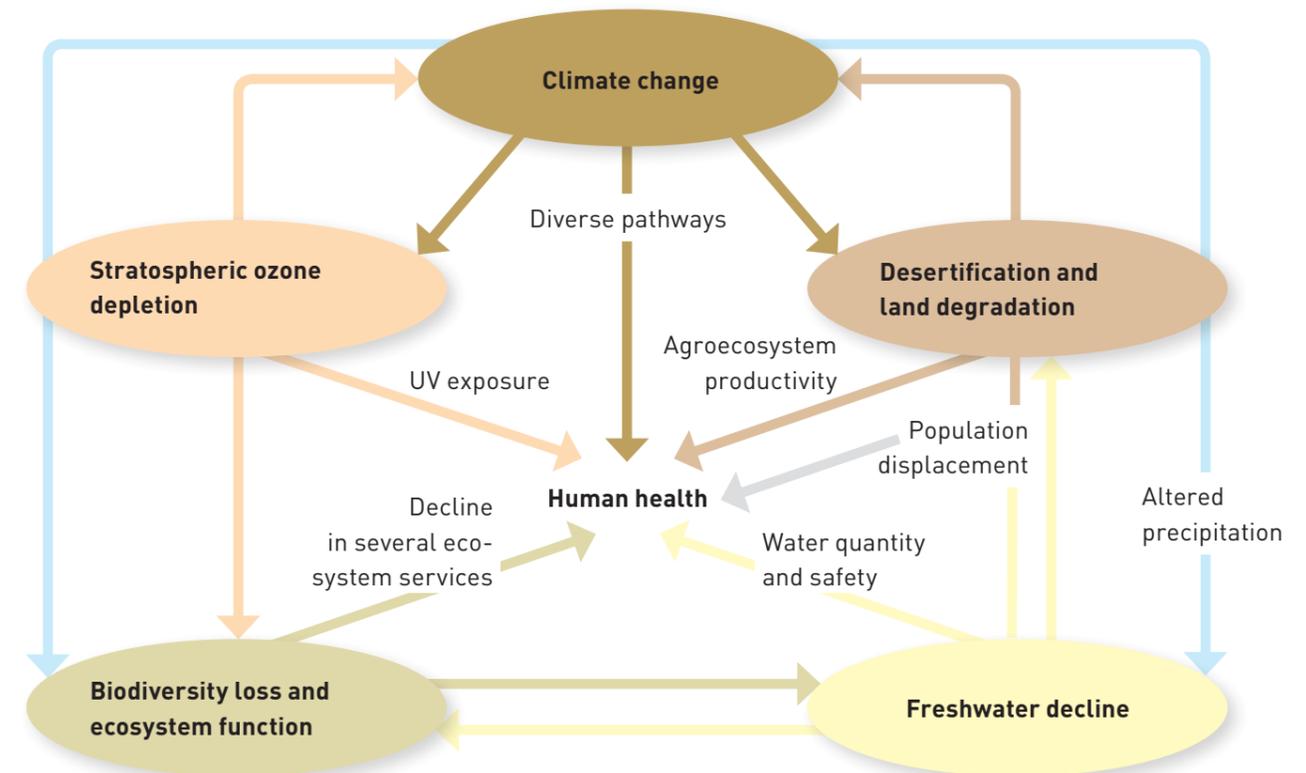
The present food system delivers low cost food at a high cost to the environment and to human and animal health. The APHA policy paper on sustainable food systems for example summarizes the negative health and environmental impacts that accrue in the USA in the production and distribution of food. Of particular relevance are the intensive methods applied in industrial agriculture which requires large quantities of non-renewable fossil fuel, fuel-based “inputs”, such as fertilizers and pesticides, as well as antibiotic overuse in industrial food animal production. All of these can have negative environmental and health impacts (Correll, 1998; Tilman et al., 2001; Tilman et al., 2002; Butler et al., 2007; Fox et al., 2007; Foley et al., 2005): for example, the Institute of medicine estimated in 1998 that antibiotic resistance cost the US public health system US\$ 4–5 billion a year (Harrison & Lederberg, 1998). Worldwide, agriculture and land-use change are estimated to cause about one third of global warming due to greenhouse gas emissions. A range of other factors can be identified in relation to the production, distribution, consumption and recycling of food.

Today, the entire food system is highly vulnerable to global fossil fuel depletion resulting from the industrialization of agriculture. In industrial nations, an average investment of 7.3 calories of energy input is required to produce and bring to the table a calorie of food energy. The surge in oil price, in 2008, showed alarming implications on costs in the entire food system with a simultaneous doubling of food commodity prices. Knowing that crude oil production is expected to begin its terminal decline in a few years, a food system transition is required to make the food system a net producer of energy rather than a net user. For resilience against fossil-fuel price volatility, decentralization and relocalization of the food system become priorities. Then, consumers would enjoy fresher, more local and seasonal food; the impact of

transportation on climate change would be reduced; and farms would become energy self-sufficient with production of on-site renewable energy (Heinberg and Bomford, 2009).

The environmental effects of different dietary patterns are significant. They depend on many factors, including the proportion of animal and plant foods consumed and the method of food production. Industrial animal production consumes especially large amounts of energy, requiring 35 calories of fossil fuel to produce 1 calorie of food energy – not counting the energy required for processing, packaging, cold storage, and transportation of meat. Interestingly, a comparison of the amounts of energy required to produce a calorie of food shows great variability depending on the type of animal protein; this is mainly due to differences in feed conversion efficiencies between species (Smil, 2000; ADA, 2007; Carlsson-Kanyama et al., 2003; Carlsson-Kanyama & Gonzalez, 2009). Despite this impact on climate change risk, the contributions of the food system and meat consumption are generally left out of the discussion on global climate change. Some debates at the Climate Summit 2009 in Copenhagen were an exception. Lord Stern, the author of the influential 2006 Stern Review (Stern, 2006) on the cost of tackling global warming, said at the Climate Change Conference in Copenhagen in December, that a successful deal would lead to soaring costs for meat and other foods that generate large quantities of greenhouse gases. “Meat is a wasteful use of water and creates a lot of greenhouse gases. It puts enormous pressure on the world’s resources. A vegetarian diet is better.”

Fig. 10: Global environmental change
(Source: www.who.int/globalchange/environment/en)

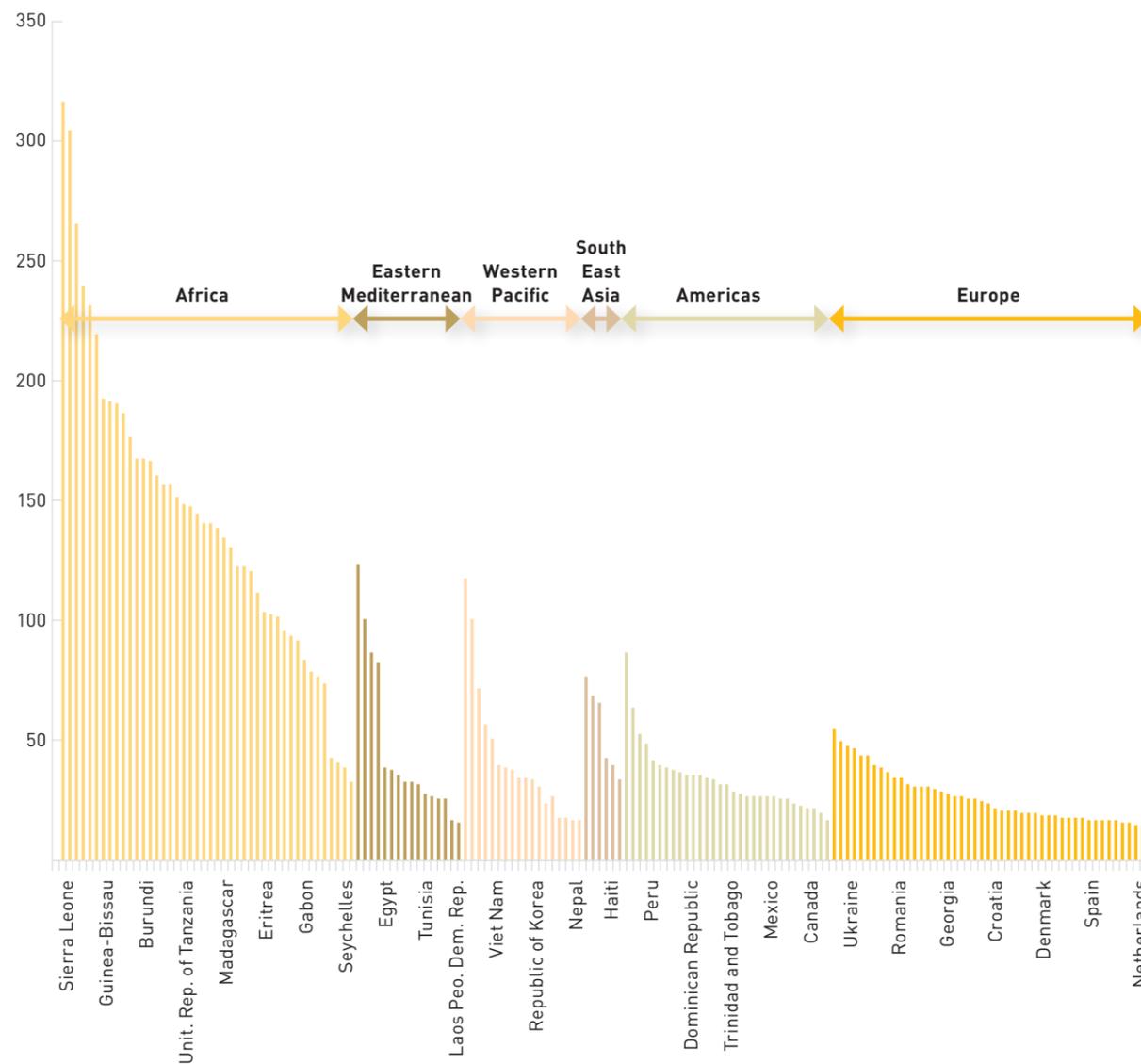


Meat production is a powerful contributor to negative environmental impacts, particularly in relation to the use of energy and water. The Food and Agriculture Organization of the United Nations (UN FAO) estimates that approximately 18% of all greenhouse gas emissions worldwide come from livestock production. Industrialized agricultural methods are fossil fuel intensive; the US food system accounts for an estimated 10.5% of the nation’s energy use and 19% of its fossil fuel consumption. Transportation is a further user, with studies estimating that the average vegetable travels approximately 1500 miles from farm to supermarket. Industrial agriculture requires extensive irrigation. Industrial meat production, especially beef, requires the most water – much of it to irrigate feed crops.

The expanding aquaculture operations pose issues similar to industrial meat production facilities, including high stocking densities, use of antibiotics and parasiticides, and waste discharge into the surrounding environment.

The “environmental DALYs” per capita provide an overall measure of the environmental disease burden rate by country. They vary widely across countries, similar to the total burden of disease. Globally, 24% of the total disease burden, or 13 million premature deaths, could potentially be prevented through environmental improvements (or shifted to other causes of premature death or disability) (Prüss-Üstun et al., 2008).

Fig. 11: Environmental DALYs/1000 per capita/year
(Source: Prüss-Üstun et al., 2008)



4 The governance of food and health

4.1 The governance challenges in relation to the food system

An approach to feeding the world equitably will require major changes at all levels of governance and a reorientation of many international organizations and programmes.

The cost of food is prohibitive for many people: in Rwanda, it consumes 72% of household expenditure on consumable goods, in Pakistan 48% – in the UK by comparison this is 22% and in the USA 14%. Food needs to become affordable for many people – yet, cheap food can contradict measures for sustainability and health. We need to debate issues such as solidarity, sufficiency, reduced consumption of resources, reduced speed of change.

Natural resources such as water, land and energy as well as human and animal health have come under great strain through the way the present food system operates. Many analysts agree that there is a global food crisis and that the global food system is unsustainable in its present form. The CSIS in the United States has termed the global food crisis a threefold threat: a moral and humanitarian threat, a development threat and a strategic threat (2008).

Despite this growing awareness, food has not yet made it to the top of the global agenda. This neglect is partly due to three factors:

- Food crises are usually “silent crises” because they affect the weakest groups in society, those that do not have much voice – even though the last years have seen a number of food riots erupt round the world.
- Food is associated with emergency relief, hunger and charity rather than with a coordinated system of governance.
- The governance of food is highly fragmented making it difficult to reach consensus and implement consolidated action.

The fragmentation of food governance: there are UN agencies and bodies with a specific mandate in the field of food security and nutrition such as FAO, IFAD, WFP, the HLTF (as a coordinat-

ing mechanism of the UN-SG) as well as other relevant UN System bodies such as the Special Rapporteur on the Right to Food, the Office of the UN High Commissioner on Human Rights, WHO, UNICEF, UNDP and the Standing Committee on Nutrition (SCN). The governance system also includes the international and regional Financial Institutions such as the World Bank, the International Monetary Fund, regional development banks and the World Trade Organization (WTO). There are many civil society and non-governmental organizations and networks with strong relevance to issues of food and nutrition as well as representatives of private sector associations, private philanthropic foundations and international research systems groups such as the Consultative Group on International Agricultural Research (CGIAR).

There is increasing recognition that the global food system creates considerable environmental strain and contributes significantly to global warming.

In the European Union, the agri-food sector is estimated to contribute 31% of total greenhouse gas emissions (Tukker et al., 2006). The growing complexity of contemporary supply chains has contributed to the increase in environmental impacts, both from transportation and energy use. Food ingredients and final products are made available to consumers all year round, regardless of season, thus increasing the distances travelled or “food miles” to reach the consumer, the manufacturer or the distributor. The supply of foods with logistical arrangements, such as just-in-time ordering and delivery systems, has increased the impact of the food supply chain on the environment (Lang et al., 2009).

The global food system contributes to the increase of chronic disease worldwide and thus endangers overall productivity as well as the sustainability of health systems – health care costs are a hidden externality of contemporary food supply chains (Lang et al., 2009). For instance, it is estimated that, in Sweden, the direct and indirect costs of obesity and obesity-related diseases amount each year to €420 million and €1330 million respectively (NFA as cited in WHO, 2006b). If the prevalence of obesity were to continue to increase at rates observed in the 1990s in

Sweden, its cost to the healthcare system would increase by 120% between 2003 and 2030 (WHO, 2006b). While efforts to inform the consumer, through labeling and education, place the responsibility on the individual to make the best possible food choice, a choice-editing process, in reality, takes place. Consumers only get to choose from a limited set of possibilities made available to them by the food industry, retailers and leading businesses (Lang, 2009).

Example: The US Food and Drug Administration (FDA) has recently notified 17 food companies – including major brands – that have made false and misleading claims on their product labels and have thus violated federal laws. Given the national battle against obesity and diet-related diseases, the FDA wants to work with the food industry to improve the nutritional information provided to consumers (Layton, 2010).

The economics of the food system are a part of geopolitics and global reconfigurations of power.

Food is a central factor in the global reconfiguration of power from the developed to the emerging economies. But food is also a highly politically charged arena, driven by major economic and political interests and like health, food also has the potential to become a concern of high politics. For example, a new trade axis is emerging with Brazil and Argentina at one pole and India and China on the other – with effects on the US predominance in food production and trade. There is a clear mismatch between the largest populations and the most productive agricultural land and farming methods. Leasing farmland overseas to produce grain has become a new way for countries such as China – a country with the world's greatest population but comparatively scarce soil resources – to solve its food supply problem. The FAO has warned that these land deals will lead to poor people producing food for richer countries at the expense of their own hungry people.

The food and nutrition industry is one of the largest industries in the world. It is an industry that is expanding at a remarkable pace (Murray, 2007). The World Bank estimates the food and agriculture sector at 10% of global gross domestic product, which makes for about \$4.8 trillion. But due to its complexity, the size of the industry is hard to ascertain. The food industry with its associated industries

(i.e. advertising) is therefore a very powerful political influence from the national to the global level. It is a critical industry for many emerging economies and central (as agriculture) to the economies of the poorest countries. For example, the food industry is one of the economic driving forces in Brazil and is the source of the biggest amount of VAT paid in the country. It was responsible for 25% of Brazilian exports in the last years. Within the food chain, the power of large corporations, especially retailers and fast food companies has increased, while that of the primary producers – the farmers – has diminished, particularly in developing countries. In the current industrial food system, there is significant market concentration, giving larger agricultural, processing, and retailing companies advantages, subsidies and other benefits that accrue disproportionately to the largest agri/food businesses. Large producers like the United States and the European Union are concerned about losing their leading positions in the world market and have great political pressure from their farming and food industry constituencies.

Food crises have become matters of security. The CSIS has drawn attention to the strategic threat of lack of food and water, which can endanger the stability of developing countries due to rising cereal prices combined with rapidly rising fuel prices. Thirty countries have experienced food-related riots and unrest in 2008, half were in Africa. Acutely at risk are large, heavily urbanized nations such as Egypt, Pakistan, Ethiopia, and Afghanistan. The forecast for the next several years is that a wide range of developing countries will struggle to access affordable, adequate food supplies, with uncertain consequences (CSIS, 2008).

The liberalization and globalization of the food market have strengthened industrial food production. Large scale food producers, traders and retailers have become important players in the global market. The WTO Agreement on Agriculture (WTO-AoA) is aimed at attaining enhanced liberalization in international agricultural trade. It has a wide range of implications for food security in poor countries and is criticized for systematically favouring industrialized country agricultural producers at the expense of farmers in developing countries. At present, it still enables industrialized countries to continue to

subsidize agricultural production and protect domestic producers from foreign competition while requiring market openness in developing countries. The ensuing great imbalances in the global food system have strengthened proposals that support poor countries to pursue policies towards food self-sufficiency, also because the agricultural sector has large multiplier effects in these economies and is a major source of livelihoods and income for the majority of the populations living in rural areas. Food security was discussed for the first time in the WTO context at a meeting with UN Special Human Rights Rapporteur in 2009. He stated that WTO member governments should not rush into liberalization of agriculture without assessing the impact on the one billion hungry people in the world. Trade can only help promote human rights and access to food if certain conditions are met.

Growing consumer awareness is creating new patterns of consumption in developed countries.

Affluent consumers are increasing their individual commitment to purchase food that is healthy, and that has been produced in accordance with social and ecological principles. It is estimated that the global sales of organic food and drink reached US \$46 billion in 2007; and the global fairtrade product sales exceeded US \$3.5 billion in 2008 (Organic Monitor, 2009). Consumers are not only keen on identifying the composition but also the provenance of food; and retailers have responded by marketing “food from somewhere” (Campbell, 2009) and introducing new forms of labeling (Friedmann and McNair, 2008). Consumers are also opting for locally and regionally produced food and distribution mechanisms such as farmers’ markets, Community Shared Agriculture and vegetable box schemes. As a response to an increasing number of food scares and environmental problems, food-related social movements, alternative agriculture and new forms of audit – like Slow Food, La Via Campesina, Anti-GM, Organic, Global-Gap audit – have emerged; and the negative conditions for producers in developing countries have become more visible over global-scale distances. The fair trade movement which aims to correct the highly unequal power relation between food producers in developing countries and the global food industry (Friedman, 2005; Campbell, 2005) has also gained

ground. The proclaimed negative effects of the current industrial food systems are being translated into actual consumer food purchasing decisions; yet, the basis for consumer decisions has become more complex: for example, the distinction between local and sustainable food remains to be clarified to many consumers (Sustainable table, 2009; Living planet community, 2010) as one does not necessarily mean the other. Where meat and vegetables are grown locally in heated greenhouses, it is actually more energy efficient and sustainable to get such products from areas where they are grown in the open (Carlsson-Kanayma, 1998).

Food policy could well be the next frontier of global politics championed by the international civil society:

it is exemplary for issues of equity within and between societies and between generations; for addressing the power imbalance between global industries, poor nations as well as consumers around the world, for the responsible use of resources (including water) and the attainment of healthy and sustainable lifestyles. Already in some advocacy approaches “big food” is equated with “big tobacco” (Brownell and Warner, 2009). Food would allow for a coalition of interest – such as the coalition that was created in global health on the issues of access to medicines – between development organizations, global civil society, anti-poverty and human rights activists, anti-globalization movements, health, food, nutrition and environmental experts, foundations, enlightened companies and a range of international organizations. It would allow for broad coalitions because of the many different sectors and actors that recognize the interdependence of various dimensions of the food system, the need to act between sectors as well as between levels of governance.

4.2 The Governance responses at the global level by the UN system

There is an increasing need for global collective action between agencies, countries and other actors and for a global regulatory environment in relation to sustainable food and health policies.

Some strategies exist or are in the process of development: The Global strategy on diet, physical activity

and health (WHO), Global strategy for food safety (WHO), Global Food Standards (Codex Alimentarius) (WHO/FAO), International Code of Marketing of Breast-milk Substitutes (WHO). But as the World Bank stated in a report to the G8 meeting in July 2008 “...there should be greater collective action to counter global risks. The interconnected challenges of energy, food and water will be drivers of the world economy and security” (Zoellick, 2008).

Three policy concepts – **food justice, food security and food sovereignty** – have emerged in the global food policy debate which link to similar concepts in the health debate: **health as a human right, health security and empowerment for health**. These concepts – which are described in more detail below – provide an excellent starting point for joint action between health promotion and sustainability in relation to sustainable food policies based on equity.

4.2.1 Food justice: combining the right to food and health

The right to health and the right to food are at the normative base of a sustainable food system.

Both health and food are goods that cannot be regarded as pure commodities in the global market place. Clearly, the vulnerability of poor people and poor countries need to be the prime concern for policy makers. In following this line of thought, **food justice** deals with the **lack of access and entitlement** to food. Policy-makers at all levels need to address the many factors and policies that lead to such inequities, for example in the trade arena. With this in mind, there are many proposals for a revision of Common Agricultural Policy of the European Union and of WTO regimes in order to ensure more equity. But in recent years, it has become clear that such long-term policy ventures need to be urgently supplemented by measures – due to expected scarcity – to scale up the world’s humanitarian food system. The constant financial gaps faced by the World Food Programme are a case in point.

Glossary: The right to food is a human right and is a binding obligation well-established under international law, recognized in the Universal Declaration on Human Rights and the International Covenant on Economic, Social and Cultural Rights, as well as a plethora of other instruments. The right to food has

also been recognized in numerous national constitutions. The right to food has been well defined in the General Comment No. 12 of the Committee on Economic, Social and Cultural Rights. This defines the right to food as: **“the right of every man, woman and child alone and in community with others to have physical and economic access at all times to adequate food or means for its procurement in ways consistent with human dignity.”**

The right to food is seen as a responsibility of governments: they must not take actions that result in increasing levels of hunger, food insecurity and malnutrition. They must protect people from the actions of others that might violate the right to food and they must also, to the maximum of available resources, invest in eradicating hunger. The right to food is not about charity, but about ensuring that all people have the capacity to feed themselves in dignity. In order to promote and support government action, the Food and Agriculture Organization of the United Nations (FAO) published, in October 2009, a *Methodological Toolbox on the Right to Food* designed to provide governments a framework for implementing right to food legislation, monitoring, and education at the national level. A Special Rapporteur on the right to food was appointed in 2000.

The UN Special Rapporteur on the right to food presented on March 5, 2010 his report on “Agribusiness and the right to food”. The report highlights the imbalances of power in current food systems and contributes to a better understanding of the responsibilities of agribusiness corporations and States in the realization of the right to food. It looks specifically at two groups that are most vulnerable to food insecurity – agricultural workers and smallholder farmers. The Special Rapporteur makes recommendations to both States and private actors of the agribusiness sector. The former group needs to a) improve the protection of agricultural workers, b) monitor compliance with labour legislation, c) proactively engage in public policies aimed at expanding the choices of smallholders to sell their products on local or global markets at a decent price, d) reinforce the bargaining power of smallholders and equalize their relationships with the agribusiness sector, and e) reengage in public regulation of global food chains. The latter group needs to a) refrain from practices that constitute an undue exercise of buyer power, b) use their influence on suppliers to ensure that wages and working conditions improve as a result of their suppliers joining global value chains, c) involve smallholders in

the elaboration of and compliance with food safety, labour or environmental standards and facilitate their access to global supply chains; negotiate contract farming arrangements that respect the right to food of smallholders; and promote fair trade (De Schutter, 2010).

Health as a human right has become a driving force for health promotion and a worldwide movement of health action. Already outlined in the WHO constitution 1948: “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being...” and reiterated in the Ottawa Charter 1986 as well as in many UN documents and agreements, it has gained additional strength through the appointment in 2002 of a *Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health* appointed by the Human Rights Council. The right to health is considered a broad concept that can be broken down into more specific entitlements such as the rights to: maternal, child and reproductive health; healthy workplace and natural environments; the prevention, treatment and control of diseases, including access to essential medicines; access to safe and potable water – and (one should add) the right to food.

Glossary: The right to health is an inclusive right, extending not only to timely and appropriate health care, but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, healthy occupational and environmental conditions, and access to health-related education and information, including on sexual and reproductive health.

The right to health contains both freedoms and entitlements. Freedoms include the right to control one’s health, including the right to be free from non-consensual medical treatment and experimentation. Entitlements include the right to a system of health protection (i.e. health care and the underlying determinants of health) that provides equality of opportunity for people to enjoy the highest attainable standard of health (Committee on Economic, Social and Cultural Rights, General Comment No. 14).

4.2.2 Food security: ensuring the access to food as a key dimension of health and human security

Glossary: Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. In this regard, concerted action at all levels is required. Each nation must adopt a strategy consistent with its resources and capacities to achieve its individual goals and, at the same time, cooperate regionally and internationally in order to organize collective solutions to global issues of food security. In a world of increasingly interlinked institutions, societies and economies, coordinated efforts and shared responsibilities are essential (Rome Declaration on Food Security, 1996).

Food security and health security are strategic terms that are being used to express the need for better global governance and better crisis response in the policy arenas of food and health. Both aim to highlight the relevance of the issues at stake for the common policy concern of all countries.

“Achieving food security in times of crisis” was the theme for the 2009 World Food Day and for the Tele-Food campaign of the Food and Agricultural Organization of the United Nations. It aimed to ensure adequate political and financial support for emergency food assistance. In July 2009, 26 countries and 14 multilateral organizations agreed to work together under the umbrella of the *L’Aquila initiative on food security*. The *World Health Report 2007 – A safer future: global public health security in the 21st century* shows how the world is at increasing risk of disease outbreaks, epidemics, industrial accidents, natural disasters and other health emergencies which can rapidly become threats to global public health security. The report explained how a **new mechanism of global health governance**, the revised International Health Regulations or IHR (WHO, 2005), could help countries to work together to identify risks and act to contain and control them.

While in the global health arena the instrument of the IHR has been used to contain and manage major disease outbreaks, in contrast the global food insecurity situation has worsened. The FAO estimates that the number of hungry people could increase by a further 100 million in 2009 and pass the one billion

mark. The gravity of the current food crisis is the result of 20 years of under-investment in agriculture and neglect of the sector. Directly or indirectly, agriculture provides the livelihood for 70% of the world's poor.

The revised African Regional Nutrition Strategy (ARNS) 2005–2015 was endorsed at the Sixth African Union Summit in 2006. The ARNS 2005–2015 aimed to raise awareness, among leaders, to the seriousness of food insecurity and nutrition deficiency in Africa and to the role of nutrition in socioeconomic development and the achievement of the MDGs in Africa. The ARNS 2005–2015 was to be used as a blueprint for revising National Plans of Action for Nutrition (African Union, 2005).

There are some governance mechanisms for food security. In recognition of the urgency of the food agenda, the United Nations Secretary-General established the *Task Force on the Global Food Security Crisis*, in April 2008, which included representation from the heads of many of the agencies listed above and was chaired by the UN Secretary-General, with FAO Director-General serving as Vice-Chairman. Its *Comprehensive Framework for Action* outlined a strategy to provide safety nets and assistance for smallholder farmers and to support longer-term agricultural productivity and resilience, social protection schemes, market access and fair trade. The starting point for this food action plan was the Millennium Development Goal 1: to Eradicate Extreme Poverty and Hunger. The first objective was to improve access to food and nutrition support and increase food availability.

The *World Summit on Food Security* in November 2009 built on this work and called for coordinated and comprehensive strategies for agricultural development and effective social protection so that vulnerable people – women and children in particular – can get the food they need for nutritional security and well-being. The nutritional dimension is now considered integral to the concept. Indeed, the Committee on World Food Security (CFS) has proposed to develop a *Global Strategic Framework for food security and nutrition*.

Task Force on the Global Food Security Crisis Membership: UN Secretary-General, Food and Agriculture Organization (FAO); International Fund for Agricultural Development (IFAD); Inter-

national Labour Organization (ILO); International Monetary Fund (IMF); UN Office of the High Representative for the Least Developed Countries; Landlocked Developing Countries and Small Island Developing States (OHRLLS); United Nations Conference on Trade and Development (UNCTAD); United Nations Development Programme (UNDP); United Nations Environmental Programme (UNEP); Office for the United Nations High Commissioner for Refugees (UNHCR); United Nations Children's Fund (UNICEF); World Food Programme (WFP); World Health Organization (WHO); World Bank; World Trade Organization (WTO); Department of Economic and Social Affairs (DESA); Department of Political Affairs (DPA); Department of Public Information (DPI); Department of Peacekeeping Operations (DPKO); Office for the Coordination of Humanitarian Affairs (OCHA); Office of the High Commissioner for Human Rights (OHCHR).

The insight provided by the World Health Report and the Health Security concept – that no single country, regardless of capability or wealth, can protect itself from hazards without the cooperation of others – is still lacking in the food security arena – it is still driven by crisis and charity. A safer future – says the World Health Report – must be based on a collective aspiration and a mutual responsibility. International health security is the first line of defence against health shocks that can devastate people, societies and economies worldwide.

While the concept of health security allows for strategic links to the food security debate – and explicitly describes such links in the 2007 report particularly as far as crisis and emergencies are concerned – **the concept of human security allows for a more long-term perspective.** Human security focuses on global vulnerabilities – as outlined in a 1994 report by the UNDP – which included the various issue specific securities: economic security, food security, health security, environmental security, personal security, community security and political security. **While the concepts of food security and health security can reinforce one another also in very practical ways, the concept of human security is probably the best basis for a common value-based agenda.**

Glossary: Human security may be considered an inalienable human right, and the human rights concept of duties and obligations appropriately raises challenges about the responsibilities of actor groups to provide human security. In somewhat differ-

ent ways, human security amplifies traditional approaches to human development. Rather than economic growth equitably shared that is emphasized by human development, human security adds the complementary notion of equitable protection and sharing of down-side risks during periods of crisis and decline (Chen, 2004).

4.2.3 Food sovereignty: addressing powerlessness and democratic deficit

The concept of food sovereignty expresses the concern of the power imbalance in the global food system and the need to respond with sustainable development objectives which increase the rights of people.

It is a concept which has gained particular attention in the NGO world – but lately also in some countries, both developed and developing. It is increasingly being promoted as an alternative framework to the concept of food security. The debate on food sovereignty aims to address what some see as a democratic deficit of the food security debate and approach – action groups, for example, call for more involvement of both producers (in particular farmers) and consumers in the global food debate. Some debates on food sovereignty come close to the health promotion concept of empowerment of individuals and communities to increase control over their health and its determinants. The ability to create or resist change is considered an important foundation for individual and community health. By enabling people to empower themselves, health promoters can provide the capacity for the individual and community to change their lives and their living conditions, and therefore their health.

Glossary: “Food sovereignty is the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self-reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic resources. Food sovereignty does not negate trade, but rather, it promotes the formulation of trade policies and practices that serve the rights of peoples to safe, healthy and ecologically sustainable production” [Peoples’ Food Sovereignty Statement by Via Campesina].

Some issues raised by the food sovereignty debate remain highly controversial such as the meaning and the extent of the concept of self-reliance in matters of food and agriculture. This is similar to placing empowerment at the heart of health promotion practice in the attempt to get at the underlying social determinants of disease (Laverack, 2004). Powerlessness or the lack of control over destiny is central to both concepts.

Example: The WK Kellogg Foundation first launched *Food and Society* in 2000. Its growing social movement, the *Good Food Movement*, has funded more than 75 projects supporting the creation of community-based food systems. The Movement’s end goal is to increase the sale of *Good Food* from about 2% to at least 10% of retail food sales. To the Foundation, a *Good Food* is food that is healthy, green, fair and affordable (WK Kellogg Foundation).

4.3 Governance at the national level: the emergence of comprehensive national food policies

Governments – national, regional and local – have significant influence on what people eat and how access to food is ensured.

They impact all the dimensions of the *food system* which encompasses agriculture, food transport and distribution, food processing and marketing, food retail and food services and finally food waste. In many countries, gaps have emerged in public policy with all of these dimensions, as well as in relation to food standards, food safety and information of consumers, with particular reference to protecting and promoting public health. In many countries, the regulatory system must be updated to respond to the new vulnerabilities of the food system – in particular, its increased proneness to food-borne diseases and outbreaks and reduced nutritional value. For health promotion, the strategic shift from individual to structural determinants in relation to food and nutrition is the most appropriate response strategy as it allows broad coalition-building and broad focus on the political, social and environmental determinants of health. For health promotion, this means promoting the development of sustainable multi-sectoral “upstream” food policies based on the principles of

health, sustainability and equity, at all levels of governance.

The governance of sustainable food systems requires:

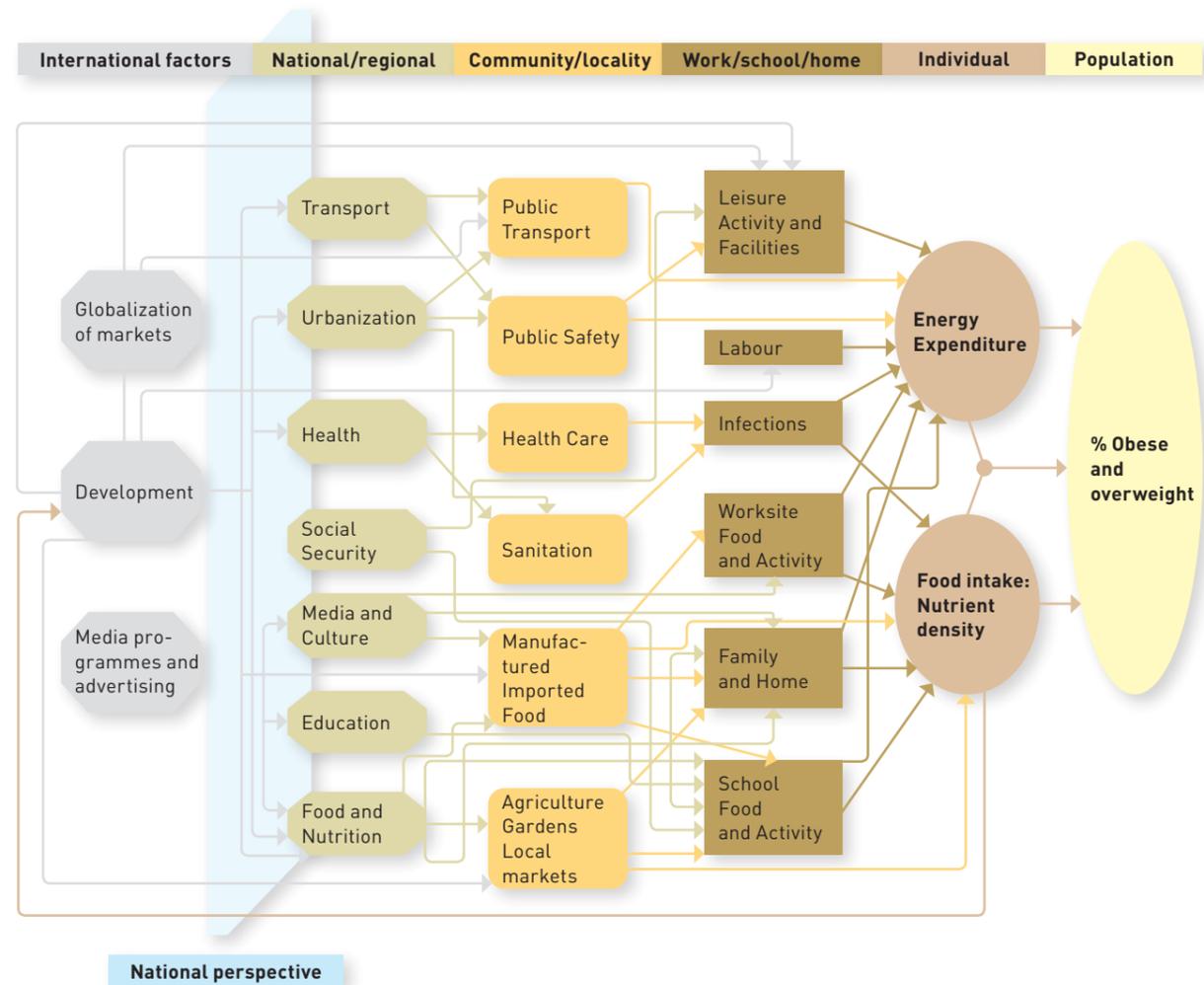
- **Value-base and ethics:** a commitment to human rights, equity and sustainability.
- **Horizontal governance:** multi-level interactions (i.e. local/national/international/global) and multi-actor involvement – both formal and informal – based on an accepted set of rules, procedures, processes, and widely-accepted behavior.

- **Integrated policy approaches:** the formulation and implementation of policies in response to issues related to food, health and the environment.

Ensuring food security is a major challenge for many governments today – particularly in developing countries. Examples include the **Indian** National Nutrition Policy and the National Food Policy for **Bangladesh**. The latter, for example, includes three objectives:

Fig. 12: Health in all policies: the food system for obesity

[Source: S Kumanyika, RW Jeffery, A Morabia, C Ritenbaugh and VJ Antipatis Public Health Approaches to the Prevention of Obesity [PHAPO] Working Group of the International Obesity Task Force [IOTF]: International Journal of Obesity [2002] 26, 425–436]



- adequate and stable supply of safe and nutritious food,
- increased purchasing power and access to food of the people and
- adequate nutrition for all individuals, specially for women and children.

An emerging economy such as **Brazil** has together with the FAO implemented Fome Zero, a programme to guarantee food security and eliminate hunger in Brazil through an integrated set of policies. The Programme, launched in 2003, sought to mobilize different areas of Government (Federal, State, municipal and local) and civil society, NGOs, unions, church groups, private sector, etc. A cash programme known as “Bolsa Familia” improved the lives and nutritional intake of more than 8 million families. The Food Products Procurement Programme, aimed to ensure a market (and reasonable price) for products from small-scale farmers and included local procurement by local governments, for example, for use in school feeding programmes (Joint FAO/IDB/WB, 2001; FAO, 2009). The Brazilian experience has been instrumental in encouraging other countries, in both Africa and Latin America, to follow its example.

Some developed countries, like **Scotland**, have engaged in a common approach across government and have launched the Scottish National Food and Drinks Policy. It is a policy committed to health and sustainability and includes sections on *Sustainable economic growth, Healthy and sustainable food & drink choices, Celebrating and safeguarding Scotland’s reputation as a Land of Food and Drink, Walking the talk – getting public sector procurement right and Food security, access and affordability.*

Glossary: Food and nutrition policies are concerned with physical and economic access to food that is safe, nutritious, affordable, wholesome and culturally appropriate in adequate amounts and kind throughout the year that can prevent hunger and promote and sustain health, function and livelihood of an entire population at all stages of life. Beyond biomedical concerns, food and nutrition policies should seek to enhance a social, economic and food industry infrastructure that allows populations to make healthy decisions about foods to eat under environmentally sustainable conditions.

Partly adapted from Draper and Dowler, *Encyclopedia of Human Nutrition*, 1998, and from M Caraher and J Coveny, *Public Health Nutrition* 2004; 7 (5): 591–598.

As dietary patterns change, Western countries and those parts of the developing world also affected – in particular the emerging economies – will need to better understand and consider the impacts on the health of their populations of global food distribution and global food markets.

4.4 Governance at the local level: the emergence of local food policies

Of particular importance are food policy initiatives at the local level. Here too the responsibilities are spread across numerous governmental departments and functions. Many local initiatives include a variety of partners.

Many examples exist related to the “classic” settings approaches in health promotion for example in schools. New concepts and approaches will need to become part of the health promotion agenda: for example, in the developed world, the concept of *food deserts* is gaining in relevance; it is used to describe poor neighborhoods in which residents have few places to buy fresh groceries. New types of regulation need to be explored in relation to town planning: for example, the Los Angeles City Council decided to stop new fast food restaurants from opening in some of the city’s poorest neighborhoods. This is the first time a government prohibited a specific style of restaurant for health reasons and at the same time provided economic incentives for new grocery stores and restaurants with table service, farmers markets and support of local and regional produce. For the developing world, the reintroduction of local markets which have been destroyed by global policies is of prime importance.

Example: An example of an innovative programme to increase supermarkets and retail stores in underserved communities is the Pennsylvania Fresh Food Financing Initiative (FFFI) – a \$120 million financing pool from public and private sources. As of January 2007, the fresh food retail space across Pennsylvania is expected to increase by over 1.2 million square

feet due to grants and loans to more than 50 stores
(www.thefoodtrust.org/pdf/FFF1%20Brief.pdf).

Action at the local level is critical and in the USA and Canada, for example, there has been a growing movement of state and local food policies as well as food policy councils. The latter are often created through legislation and convene key stakeholders to evaluate their areas' food systems and make recommendations. These **Food Policy Councils** partner with business and community groups to develop policies and programmes promoting food security. The aim is to jointly create a food system that fosters equitable food access, nutrition, community development and environmental health. Health actions in developed countries have included banning soda from schools, banning trans fat and, more recently, in New York, a law that requires calorie counts to be posted on menus, right next to the prices. Other approaches are **Community Food Security Coalitions** and municipalities giving preference (sometimes required by law) to local and regional producers and to fruit and vegetable schemes. In developing countries, new approaches to farming and agriculture as well as to efficient food markets will be critical. **Community food system initiatives** can support the development of sustainable food systems as they help form new social and economic relationships, infrastructures and entrepreneurs. **Targeted food programmes** – a food safety net – are essential in many communities in both developed and developing countries. Many also aim to promote a diverse local food culture. Other approaches stress the need to increase **food literacy** in populations. "Food Literacy is the ability to organize one's everyday nutrition in a self-determined, responsible and enjoyable way."

Two examples are indicated here as exemplary: the food policy of the City of Vancouver in Canada and the food policy of the city of San Francisco in the USA.

What are food policies? Food policies are decisions that affect how food is produced, processed, distributed, and purchased or recycled. Food policies are involved in many aspects of city life. These include decisions relating to: Urban Agriculture (community gardens, rooftop gardens), Farmers Markets, the location of grocery stores, the availability of free and low-cost meals,

Community kitchens, Composting food waste, Institutional food purchasing decisions (City of Vancouver, Canada).

In July 2009, San Francisco adopted the Mayor's Executive Directive on Healthy and Sustainable Foods in San Francisco. This first ever comprehensive food policy for San Francisco considers the food production, distribution, consumption, and recycling system holistically and addresses, hunger, healthy food planning and procurement for city departments, food production on city owned land, a healthy food business plan, marketing of regionally grown food in SF, recycling, education and awareness plan, and advocating for consistent state and federal policies among others.

In making a healthy and sustainable food system a priority for health promotion, advocates can build on the experiences gained in the public health policy arena over the last 20 years when it began to shift from a focus on "smoking" to a focus on "tobacco production and consumption". This shift to the political and structural determinants and to the policy arenas of agriculture, trade, production, distribution, marketing and to the education and rights of consumers – finally led to the adoption of a new governance mechanism, the *Framework Convention on Tobacco Control* – which was proposed and supported by the IUHPE – a seminal international treaty on health. It must also build on the extensive advocacy experience in the area of sustainable development, environment and climate change.

Fig. 13: San Francisco Healthy and Sustainable Food Policy
(Source: San Francisco Food website www.sfgov.org/site/sffood_index.asp?id=66021)



5 Recommendations

Health promotion must make the promotion of healthy and sustainable food systems a priority so that healthy and sustainable diets become possible.

It must address the unsustainable patterns of food production and consumption and their impact on health. It must empower consumers to be actively engaged in promoting action in relation to food, health and sustainable development. A key challenge is to promote sustainability goals through healthy public policy and vice versa. Such approaches can include mechanisms like “green subsidies” and the expansion of the infrastructure for providing locally grown food.

The three basic strategies for health promotion are to:

Advocate: Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health.

Enable: Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential.

Mediate: Health promotion demands coordinated action by all concerned: by governments, by health and other social and economic sectors, by nongovernmental and voluntary organizations, by local authorities, by industry and by the media (Ottawa Charter, 1986).

5.1 General recommendations

Based on the three strategies of health promotion – to advocate, mediate and enable – the following approaches can be considered for moving towards a healthy and sustainable food system:

Advocate: Health promotion recognizes the urgency to advocate for a food system that promotes sustainability, improves health, and ensures equity.

– It urges the public health community to increase its engagement for a healthy, sustainable and equitable food system and to seek allies to promote this agenda at all levels of governance: global, regional, national and local.

– It bases this advocacy on the principles of food justice, food security and food sovereignty and links these to health promotion principles and approaches.

– It includes advocating for support for a healthy, sustainable and just agriculture; for inclusion of sustainable food policies in development policies; and for local, sustainable, and fair trade food production in order to ensure food security and to make healthy, sustainably produced foods the affordable, convenient choices, and advocating for the empowerment of individuals, communities and consumers.

Examples: Health promotion advocates for **food environmental impact statements** as proposed in New York City in June 2009: it would require government agencies and developers in NYC to assess the impacts of their projects on the food system and to mitigate anticipated negative effects, whenever environmental assessments and environmental impact statements (EISs) are prepared.

Health promotion advocates for **environmental dietary guidelines** which are concerned not just with the amount and kind of foods that are consumed, but also how these foods are produced, transported, sold and cooked, etc. as well as their environmental impact.

Enable: Health Promotion recognizes the need to empower communities to engage for healthier food production and consumption.

– It reinforces health promotion strategies that contribute towards changing diet patterns for health and sustainability and consumer involvement in support of the food, health and sustainability agenda.

– It promotes the concept of “sustainable and healthy diets” as an integral part of education about food choices. A shift to sustainable and healthy diets would be supported by the widespread adoption of a sustainable agricultural policy that promotes the conservation of natural resources and combines the development of regional and local production with a health perspective.

– It educates consumers on the impact of diet on climate change.

Example: An example are the Dietary Guidelines for Sustainability developed by JD Gussow and KL Clancy already in 1986. Paul Roberts states that “at the heart of any discussion about the sustainability of the modern food system is the protein paradox.”

Mediate: Health Promotion recognizes the need to engage policymakers; media; food and related industries; and public health, nutrition, environmental and development professionals to contribute to solutions associated with the food system, including issues related to sustainability, nutrition and equity.

– It addresses challenges related to malnutrition and obesity through policy efforts and public private partnership platforms that include major forces in society.

– It mediates the many actors around key healthy public policy issue of meat consumption.

– It makes unsustainable water use a major health promotion issue.

Examples: WasteWise, a voluntary programme first launched in 1994 by the US Environmental Protection Agency, provides technical assistance for organization-specific waste reduction programmes. WasteWise members report a decrease of more than 120 million tons of waste and a significant drop of their impact on global climate change. Several success stories figure among educational institutions, the beverage and the food manufacturing/processing industries (www.epa.gov/osw/partnerships/wastewise/index.htm).

With climate change leading to water scarcity, the food and drink industry is starting to pay closer attention to its water use and efficiency. Multinational corporations, with complex supply chains, are attending summits – such as the Water Footprint Summit of February 2010 – and partnering with climate savers organizations in order to find innovative strategies to secure their businesses. By 2010, the collective action of these organizations is expected to cut carbon emissions by 14 million tons annually (Glover, 2009).

A new concept of Corporate Social Responsibility proposes to replace the more traditional charitable and philanthropic descriptions with joint responsibilities for shareholders and society. In the Nestle context, the role of business in society and the broader issues surrounding food security and sustain-

able development were recently presented with emphasis on three main areas of shared value-creation and optimization: water, rural development and nutrition (IFPRI, 2010).

5.2 Global sustainable and healthy food policies

At the global level, the health promotion community needs to

– develop an understanding that the “food system” is a critical determinant of health,

– take active part in the global initiatives on food justice, food security and food sovereignty; and build alliances with those actors that promote these concepts,

– **take initiative and advocate and support the improvement of the global regulatory environment** to mitigate the negative impact of unsustainable development on health and address factors that contribute to diet related diseases, such as global marketing. In particular, it should engage in supporting the development of new global instruments such as an International Code on Marketing of Foods and Non-Alcoholic Beverages to Children and such as children’s television standards,

Example: In the United States, taxes on sugared beverages constitute a controversial subject of debate. Opponents feel that a change in prices would occur, without government interference, as consumers demand more healthful foods. However, others support government action for such considerations as external-ity (on healthcare, productivity, absenteeism), information asymmetry between marketers and consumers, and revenue generation which could be earmarked for programmes related to health and nutrition or used to subsidize the purchase of healthful foods (Brownell and Frieden, 2009).

– **support the development of global collaboration and inter-sectoral partnerships between the major agencies concerned with the food system – such as the WHO, FAO, WFP, UNEP, UNDP and others.**

Examples: Despite problems with credibility and traceability, environmental labels and environmental management schemes communicate, to the consumer, improvements in production

practices and environmental performance (Giannakas, 2002). Examples that signal the re-embedding of agri-food systems into their cultural and ecological contexts include: GlobalGap consortium, Slow Food Foundation for Biodiversity with its Presidium products, Fair Trade, Geographical Indications and Organic bioregional labels such as Coyote Rojo in Mexico and Local Food Plus in Ontario (Friedmann and McNair, 2008). The 2007 Beijing Declaration on Food Safety defines food safety as both a national and an international responsibility and recognizes that “integrated food safety systems are best suited to address potential risks across the entire food-chain from production to consumption”. However, recent trans-boundary food-borne hazards posed serious challenges to the global governance of public health and highlighted the need for reforms in the international law on food safety regulation and governance. Three major areas were suggested for intervention: the human rights framework where the right to safe food should emerge, the regulatory framework where consumer protection should come before freedom of trade, and the sanitary framework where enforcement measures should ensure international health security (Negri, 2009),

- engage for increased global action in relation to food and health, for example *A comprehensive Global Strategy for Food Justice, Food Security and Population Health*.

5.3 National sustainable and healthy food policies

At the national level, the health promotion community needs to engage in

- developing policy models for a multisectoral food policy. Ideally, such a policy would set goals for food production, processing, marketing, availability, access, utilization and consumption, and ensure the processes for achieving these goals. National food policies cover the entire food chain, from natural resources to production, processing, marketing and retailing, as well as food hygiene, consumption and nutrition (partly from Wikipedia 2009).

Example: Countries should be encouraged to embark on the development of a national food policy based on sustainability and health promotion (comprehensive and multisectoral) so as to increase food justice, food security, food sovereignty and mitigate the negative impact of unsustainable development on health.

- better aligning nutrition advice with key existing environmental evidence and integrating information and advice on nutrition, food sustainability and food safety,

Example: A recent proposal on “Environmentally effective food choices”, the first of its kind to be published by a national authority, was compiled by Sweden’s National Food Administration and the Swedish Environmental Protection Agency (NFA, 2009). However, the European Commission has asked for a revision because the recommendations to eat locally produced food were found to contravene principles of free movement of goods with the EU internal market (USDA, 2009).

- developing approaches to food and health which take into account social inequalities, psychological and physical well-being, cultural and social diversity, and human’s need of a “healthy planet”,
- developing integrated education on matters of sustainable development and health with a focus on the interface between food and health – both health and food literacy are critical literacies for the 21st century.

5.4 Encouraging local action for sustainable and healthy food policies

At the local level, the health promotion community should engage in local action in relation to food, diets, health as well as the local and regional environment. The health promotion movement can use its networks of local initiatives to work on food and health – particularly in cities and communities, such as healthy cities, sustainable cities, local agenda 21 etc. It can build on a range of movements which promote a “buy local” approach – but strategies need to be clear that local does not automatically mean sustainable. In particular, health promotion should engage in

- establishing local **Food Policy Councils or Community Food Security Coalitions** in order to develop policies and programmes promoting access to health and sustainable food,
- encouraging local authorities and local action groups to embark jointly on **Community food system initiatives** with a particular focus on cooperation with local and regional producers and the

- provision of targeted food programmes and healthy nutrition in schools, health services and work places, as well as on equal access to healthy sustainable food and on food safety and safe drinking water and sanitation,
- further developing the concept of food literacy and linking it to other health promotion concepts – such as health literacy – and health promotion action at the local level.

6 Outlook and a way forward

A recent study (SDC, 2009) highlighted the changes most likely to have the most significant and immediate impact on making diets more sustainable, and in which health, environmental, economic and social impacts were more likely to complement each other. These were: reducing consumption of meat and dairy products, reducing consumption of food and drinks of low nutritional value (i.e. fatty and sugary foods) and reducing food waste. All imply significant societal, environmental and economic challenges and significant conflicts, particularly with producers.

And **the need for change goes beyond specific programmes** and action – it is as outlined at the beginning of this paper, a challenge to change the **norms of the social organization of our societies and their relationship to the natural environment** as well as their **commitment to the well-being and health of populations** – this applies at all levels of governance. As this paper has aimed to show, it also includes the governance of many challenges which interface through the food system: such as the energy agenda, the climate agenda, the water agenda and the poverty and equity agenda.

With such a perspective, food – like health – is an exemplar of the interconnected and multi-level policy-making required in the 21st century. In the governance debate, they are typical for what are termed “*wicked problems*”. This term is applied to problems that are difficult or impossible to solve because of incomplete, contradictory, and changing requirements. Moreover, because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems. The solution depends on how the problem is framed and vice-versa (i.e. the problem definition depends on the solution). “*Wicked problems*” cannot be tackled by the traditional approach in which problems are defined, analyzed and solved in sequential steps as is proposed in many of the models of the political planning cycle (Conklin, 2005).

One of the most effective ways to address “*wicked problems*” is through engaging stakeholders and developing a common frame together. But that can

also fail. The outcome of the Copenhagen Summit on Climate Change in 2009 or of the FAO World Summit on Food Security 2009 does not bode well that the world is ready to move in the direction of collective action on key global challenges – the conflict between the agendas of the developed, the emerging and the poor countries is still too large.

The governance of food and health and solving population health and food problems sustainably will require a new definition of solidarity, common purpose and public goods in relation to food systems and food security. This will be difficult enough in itself. A major barrier is the fact that the high economic and social costs of the contemporary food system have not yet been fully understood in the political and the public sphere. Of course changing consumption patterns in the developed countries – as was achieved with tobacco – can make an impact. We need strong policy support by international organizations, governments and advocacy groups. From both a health promotion and a sustainable development perspective, many of the actions that need to be taken are *upstream interventions* aimed towards agriculture, primary food production and food processing – at the same time, regional and international regimes like the Common Agricultural Policy in Europe or the World Trade Organization agreements need to be part of the equation.

A way forward

With this report, the healthy3 initiative presents results of and encourages and supports further intersectoral discussions, knowledge exchange and development of guidance to achieve truly intersectoral “joint action for healthy people in healthy societies on a healthy planet”; and this with a clear focus: linking the public health, health promotion and sustainable development agendas by focusing as a first step on the crucial issue of food. The well-being of people, in their societies and countries is at stake, which is relying on a healthy natural environment and planet. This report shows, that even a focus on only one crucial topic or aspect of people’s well-

being, health and life – on food – needs a complex and well coordinated answer from many actors including the for profit sector. And this applies to both, countries and local communities as well as the international level. A sustainable food system that supports the well-being and health of people is worth working or fighting for. It is not only an essential resource for the well-being of today’s populations but a must for the well-being and survival of our future generations.

The key actors behind the healthy3 initiative, that was created in the context of the preparations of the 20th IUHPE World Conference on Health Promotion “Health, Equity and Sustainable Development” (Geneva, Switzerland, July 2010), are committed towards this end. It is clear that joint intersectoral action needs not only be called for but done – both at international level and country level. Equally it is clear that this still requires the change of mindsets amongst leaders as well as decision makers within and far outside the health promotion and public health fields. Health Promotion Switzerland as key actor behind the healthy3 initiative is committed to build on this report and the discussions at the IUHPE World Conference in Geneva 2010. It plans to strengthen its efforts to reach out and expand partnerships for well-being and health in that sense. From a country perspective, action at two levels is needed and will be explored: *exchange and fruitful discussions* across sectors; and targeted exploration, scoping and planning of *joint and complementary actions* as well as their implementation both within Switzerland and at international level.

With view to the country level, Health Promotion Switzerland strives to advance and implement the healthy3 initiative in Switzerland. This might well be supported by cross border exchange and learning with other national players in other countries that are taking up the initiative’s vision and goal. Complementary, steps towards the necessary discourse, partnering and action at global level will be explored – with the global health promotion community and relevant fields of actors for sustainable development. Synergy potentials will be identified and used.

While other challenges for the well-being and health of populations (e.g. climate change, water, energy) are interlinked with the challenges around food and

also need to be tackled urgently and in new and stronger ways, a step by step approach is the way forward: This implies to follow up and work on food and food systems first – within Switzerland and in international collaboration. And it implies to use this report, its recommendations and the outcomes of the discussions at the IUHPE World Conference “Health, Equity and Sustainable Development” (Geneva, July 2010) as a starting point and basis.

Overall, the success of the healthy3 initiative will be dependent on whether the initiators and actors involved so far succeed to a) strengthen existing and b) build new partnerships among public and private sectors that jointly have the needed capacity and resources to act. It will be important to find partners that are able and willing to share resources needed and to invest in desirable processes and products: to improve the well-being and health of people by improving the whole food system from agriculture and food production to consumption patterns.

In principle, the healthy3 initiative is conceptualized to be able to take up other major challenges that put the well-being and health of populations and the sustainable development of societies at risk. So far it is planned to further reflect upon this direction, once the partnering and work on food has sufficiently advanced.

Overall, the “food agenda” is a truly global agenda – like action on global health it is defined through its trans-boundary and multi-sectoral nature. It is concerned both with managing interdependence and with fulfilling development commitments such as the Millennium Development Goals and similar goals in countries. Health promotion and sustainable development need to join forces to make food an important focus of governance at all levels – local, country and international levels. Only then can we meet the goals set by the global community and ensure that the well-being and health of future generations and the health of our planet will not deteriorate from what it is today.

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