Uphoff, N., 2007: Agricultural Futures: What lies beyond "Modern Agriculture"? In: 2nd Hugh Bunting Memorial Lecture. Tropical Agriculture Association Newsletter, September 13–19; http://www.sw-web-solutions.co.uk/taa/assets/pubs/2ndBMLSept2007.pdf (download 22.6.11)

Uphoff, N.; Ball, A.; Fernandes, E.C.M. et al. (eds.), 2006: Biological Approaches to Sustainable Soil Systems. Boca Raton, FL

Uphoff, N.; Stoop, W.A.; Kassam, A.H., 2008: A critical assessment of a desk study comparing crop production systems: The example of the "system of rice intensification" versus "best management practice". In: Field Crops Research 108 (2008), pp. 109–114

Uphoff, N.; Kassam, A.H., 2009: Case Study: The System of Rice Intensification (SRI). In: Agriculture for Developing Countries, Annex 3. European Parliament, Brussels; http://www.europarl.europa.eu/stoa/publications/studies/stoa2008-02_annex3_en.pdf (download 22.6.11)

Uphoff, N.; Anas, I.; Rupela, O.P. et al., 2009: Learning about positive plant-microbial interactions from the System of Rice Intensification (SRI). In: Aspects of Applied Biology 98 (2009), pp. 29–54

Zhao, L.M.; Wu, L.H.; Li, Y.S. et al., 2009: Influence of the System of Rice Intensification on rice yield and nitrogen and water use efficiency with different N application rates. In: Experimental Agriculture 45 (2009), pp. 275–286

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Bridging Nutrition and Agriculture
Local Food-livelihood Systems and Food Governance Integrating a Gender Perspective

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Worldwide hunger is still increasing and there is an urgent need to address the structural causes of hunger and food insecurity, including gender discrimination and power imbalances. We review the shortcomings of the separated food security and nutrition security approaches, arguing that they need to be united in the context of local food systems and governance. Current measures to address malnutrition and hunger are favoring paternalistic approaches that perpetuate aid, neediness and dependency. We suggest alternative frames that integrate food and nutrition security in a food systems and rights-based approach, namely through sustainable livelihoods and agro-ecology, and including a gender perspective that so far has been missing. We argue that this will ultimately be more cost-effective and sustainable, building capacity and autonomy of local food systems through local governance approaches that foreground inclusive participation of all members of society.

1 Introduction

The 6th Report on the World Nutrition Situation by the "United Nations System Standing Committee on Nutrition" (UNSCN 2010) highlights the crucial role of the agricultural sector to address food and nutrition problems, emphasizing that nutrition-friendly, sustainable agricultural development is key to improving food and nutrition security. Investments in small-holder agriculture, especially if targeted at women, can be important means of increasing both farm and rural non-farm household incomes. Besides higher agricultural productivity this refers for example to additional impacts such as increased demand by farmers for labor and locally produced goods and services, and lower commodity prices through a fall in staple food prices, with many rural households being net food buyers (Godfray et al. 2010;

FAO 2011, p. 43). There is further wide recognition that reducing gender disparities and empowering women promotes better food and nutrition security for all (IFPRI 2005; IAASTD 2009).

The objective of this paper is to review the shortcomings of the separated food security and nutrition security approaches. We argue that this separation has lead to an impasse between food security that ought to be attained by increased production and trade, and nutrition security that should be achieved through aid- and trade-based nutritional supplements and medical interventions. The realization of both of these forms of human security are conceptualized as products of trade, devoid of a relationship to local agriculture and with a presumption of the incapacity of local peoples to achieve autonomy and self-determination. As nutrition security is most often associated with women and children, typically collapsed into the nexus of the maternal-infant life phase, the patronizing impetus to deliver external charitable nutrition "cures" (especially in non-emergency situations) reifies discrimination against women and impedes their active participation in food and nutrition security. We follow these arguments with alternative theoretical and practical frames that integrate food and nutrition security in a food systems approach, namely through sustainable livelihoods and agro-ecology, and including a gender perspective.

2 Diverging Concepts in Food and Nutrition Security

The concept of food security has been defined in numerous ways (cf. Maxwell, Frankenberger 1992). On the international level, it was propelled forward in the 1948 Universal Declaration of Human Rights[2], although the approach of human rights and food security did not really begin to develop until the 1990s. Beginning in the 1960s, food security evolved in largely economic delivery terms, referring to food supply relative to production, trade, marketing, stocks and reserves at global, regional and national levels. The macro-level approach gradually transformed and decentralized in the 1970s and 1980s toward, i.a., the concept of individual entitlements based on Sen (1981). As outlined by Maxwell (1996, p.

155) three main shifts could be observed since the first World Food Conference in 1974: from the global and national level to the household and individual, from a food first perspective to a livelihood perspective, and from objective indicators to subjective perceptions (cf. Bellows, Hamm 2003). The "Rome Declaration on World Food Security" (FAO 1996) renewed the focus of a human rights international treaty dimension to food security. Other critical stages in the development of rights-based approaches were the adoption of the General Comment No. 12 on the right to food by the "Committee on Economic, Social and Cultural Rights" in 1999 that expanded the language of the 1966 "International Covenant of Economic, Social and Cultural Rights" (United Nations Sub-Commission on the Promotion and Protection of Human Rights 1999; OHCHR 1996; cf. Bellows et al. 2011).

Food security is "a situation that exists if all people, at all times, have physical, social and economic access to adequate, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 2002). While food insecurity is often, but not always, characterized by hunger, its principal meaning refers to the *risk* of people being hungry (Kracht 1999, p. 55). This entails the ways in which food or the resources to access food are obtained ("social access") and how available resources are distributed in the household, referring to intra-household distribution, food consumption and utilization.

The definition of "food security" has been criticized for its narrow focus on food and disregard of nutrition- and health-related aspects, as food security is not identical with nutritional-wellbeing. Decisive factors for nutritional status, besides access to adequate, safe and nutritious food, are access to and availability of health services, a healthy environment and care for women and children, as is illustrated in the widely-used malnutrition framework developed by UNICEF (1990). Gross et al. highlight the two most commonly used concepts, namely food security as defined by FAO and the UNICEF malnutrition framework, that are significantly different in their approach: while the first emphasizes economic issues with a central focus on food as a

commodity, the latter emphasizes a biological approach, with human beings as starting point (Gross et al. 2000). Although both frameworks promote an interdisciplinary and integrated approach to ensuring food and nutrition security, separation of food production from the chemistry of consumption remains the norm. Attempts to reflect the complexity of nutrition problems, including utilization of food and health-related and environmental aspects, have led to recommended terms like "nutrition security" or "food and nutrition security" (Kracht 1999, pp. 55–56; Klennert 2009, p. 25).

In applied nutrition, a period of paradigm crisis can be identified since 2005, with currently two competing paradigms (Jonsson 2009):

- *The Investment in Nutrition Paradigm* promotes top-down approaches, delivery to beneficiaries, "planning for", charity, and privatization of health and education services, reflecting overall an individualistic-oriented, free market ideology.
- *The Human Rights Approach to Nutrition Paradigm* promotes a combination of both bottom-up and top-down approaches, building capacity for empowerment, 'planning with', limiting charity, and favoring health and education services as a public good, aimed at enabling all social strata access to the same level and quality of services, reflecting a collective, public health and democratic ideology.

Jonsson concludes that the decision which of the two is likely to become the next mainstream paradigm will not be based on new scientific discoveries but rather on power politics and ideology (Jonsson 2009, p. 26). Arguments in favor of *The Investment in Nutrition Paradigm* are, i.a., its sound conceptual basis, support of the World Bank and associated likelihood of significant funding, and the avoidance of a structural analysis and approach to malnutrition that could reveal social injustice and increase political instability. Arguments for *The Human Rights Approach to Nutrition Paradigm* are, i.a., the increased recognition of economic and social rights, addressing impunity, corruption and social access to justice, and also evoking State obligations as duty bearers who are accountable to rights holders' claims.

3 Shortcomings of Agricultural Models and Nutrition Interventions

Today it is generally acknowledged that in spite of all of the investment and claimed advancement of agricultural technology and production, food insecurity and hunger have increased (IAASTD 2009). A recent evaluation of FAO estimates on how to feed the world population observes that the narrow focus on increased production and supply coexists with persisting poverty and ongoing lack of access to food (FAO 2009a, Grethe et al. 2011). The International Assessment of Agricultural Science, Knowledge and Technology for Development highlights, as main challenges, the increase of productivity of agriculture in a sustainable manner and the needs of small-scale farms in diverse ecosystems (IAASTD 2009). The report further calls for local knowledge and democratic participation in food policy broadly construed, human health, natural resource management, greater farmer independence vis-à-vis international industrial concerns, and attention to women in agriculture.

These reports call for the inclusion and centralization of grassroots-based approaches that enable the possibility of addressing structural problems, including gender discrimination and power imbalances that perpetuate food insecurity and hunger. Among these, gender is not yet adequately addressed and integrated into the discussions, despite the crucial role of women for household food security (Kent 2002; IFPRI 2005; Quisumbing, Smith 2007; Lemke et al. 2009). While both men and women farmers do not have access to adequate resources, female farmers in all regions have less ownership of land and livestock and less access to agricultural inputs, credit, education, extension and other services than do men, due to social norms (FAO 2011). Further, farm labour for women is often limited to part-time and seasonal work, and their wages are characteristically lower than those of men (FAO 2011; cf. The World Bank, FAO, IFAD 2009). According to a recent FAO report, women comprise on average 43 percent of the agricultural labour force[3] in developing countries, ranging from 20 percent in Latin America to on average 50 percent in Eastern Asia and sub-Saharan Africa (FAO 2011). Women in sub-Saharan Africa have the highest average agricul-

tural labour-force participation rates in the world, comprising over 60 percent in some countries. Further, in a number of countries the female share of the agricultural labor force has increased in recent decades due to, i.a., military conflicts, HIV/AIDS, and migration. The FAO report reiterates the call for policy interventions that close the gender gap in agriculture and rural labor markets, by

1. eliminating discrimination against women with regard to access to resources,
2. creating enabling infrastructure and technologies to provide women with more time for productive activities, and
3. facilitating women's participation in flexible, efficient, and fair rural labour markets (FAO 2011, p. 5–6).

To overcome discrimination against women and to successfully implement gender mainstreaming programs, it will be necessary to also pay attention to men and men's social roles and expectations of themselves and of women (cf. Bread for the World 2009; Quisumbing 2010).

Further, debates evolve around the ongoing support of medicalized nutrition intervention models in food aid. The 2008 "Lancet Series on Maternal and Child Undernutrition" provoked civil society criticism and scientific debates.[4] The Series rightly identified the abomination of nutrition-related maternal and child mortality rates, but without acknowledging the associated denial of basic human rights, i.a., to basic dignity and self-determination. The Series emphasized a need for short-term, private sector-lead nutrition strategies with a focus on micro-nutrients and the modeling, reconstruction, and medicalization of food instead of food-based systems and local, sustainable strategies involving the public and civil sectors. Accordingly, the recent Scaling up Nutrition (SUN) initiative[5] that was developed as a result of the Lancet Series favors a stronger influence of the private sector, to the detriment of more holistic and locally-based approaches (Latham et al. 2011). One important element of SUN is the large-scale distribution of Ready-to-Use Supplemental Food (RUSF), high energy nutritional food supplements based on cereals, legumes, or seeds fortified with vitamins and minerals, used to treat or prevent moderate to mild forms of malnutrition.

We argue that global circulation of RUSF, as an example of a non-local food and nutrition "cure," and increasingly even as a form of malnutrition prevention, is over-emphasized to the advantage of trade interests, but to the detriment of developing capacity and autonomy in community and national based food and nutrition systems.

The question becomes, whose interests are served by SUN and whose livelihoods enhanced. Public and business policy to adopt or promote industrially produced, internationally traded, and non-locally sourced or created RUSF inhibits local sustainable solutions for food and nutrition security. These "measures" represent a paternalistic, "non-human-rights-based approach" that indicate a presumption of local incompetence and that accentuate aid, neediness and dependency. In contrast, approaches are needed that promote ownership, capacity, autonomy and self-determination of local food systems, as well as tangible outcomes such as improved food and nutrition security, job creation, and broad social networks. Food is not just about nutrients, but about livelihoods, value, culture, and many other aspects. As has been pointed out at a post-19th IUNS Nutrition Congress 2009 Symposium hosted by the "United Nations System Standing Committee on Nutrition" (UNSCN)[6] the cost-effectiveness of supplementation (e.g. with Vitamin A or imported, pre-processed complementary foods) requires investigation. Supplementation is designed to achieve a single effect, vs. food-based strategies that seek more diversified nutritional and other livelihood effects (e.g., of supporting local food systems and economies). Additionally, the ethics of private-public partnerships associated with supplementation and linked to the undermining of local agriculture and diets, as well as to economic dependencies, have to be questioned.

4 Bridging Nutrition and Agriculture: A Systems Approach and Local Food Governance

The "Sustainable Livelihoods Framework" as developed by the Department for International Development (DFID 1999) can serve as a theoretical framework and analytical tool to explore rural livelihoods and the closely connected issues of poverty, hunger and food insecurity. The initial

concept "Sustainable Livelihoods Approaches" (SLA) became increasingly central to the international debate about development, poverty reduction, and environmental management in the 1990s (Scoones 2009). A livelihood "comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintains or enhances its capabilities and assets, while not undermining the natural resource base" (Scoones 1998, p. 5).[7] At the micro- and meso-level, livelihood assets (physical, natural, financial, social and human capital) play an essential role for households to pursue their livelihood strategies and to strive for desired livelihood outcomes, largely influenced by institutional and policy structures at the national and provincial level, with these structures to a great extent determining the vulnerability context of people. Thus a sustainable livelihoods approach must address a full range of access to resources for insecure populations, including access to social and political assets. While SLA has been criticized for not adequately reflecting power relations, the initial approach presumed that an understanding of social relationships, their institutions and organizations and their embedded power dynamics is crucial to designing interventions which improve sustainable livelihood outcomes (Scoones 1998).

According to Scoones (2009), especially over the past decade, research and policy have shifted away from the contextual, transdisciplinary and cross-sectoral SLA-influenced perspective, back toward a predictable default to macro-economic analyses. In line with Scoones (2009) who calls for re-energizing livelihoods perspectives, we argue that SLA research continues to offer a valuable and holistic approach for an integrated analysis of complex and highly dynamic contexts. SLA is able to bridge academic and policy divides, particularly between the natural and social sciences, and to challenge single-sector development approaches; it emphasizes the importance of local knowledge and the inclusion of participatory research methods as a means to help to understand complex local realities and to facilitate engagement and learning between local people and outsiders. The limitations of SLA, as with regard to power relations,

can benefit from the integration of complementary tools and frameworks that more specifically address these relationships. This is for example being applied in current research on food security and right to adequate food in the context of land reform in South Africa (Lemke 2010), exploring women's empowerment by integrating the Sustainable Livelihoods Framework with the Women Empowerment Framework (Kabeer 1999). It is further acknowledged that every exploration has to be adapted to the respective research context, creating high time and resource demands. Yet, SLA offers two advantages. First, it grapples with structural and underlying causes of food and nutrition security from the insights of those affected by insecurity. Secondly, in so doing, SLA can and should integrate its approach with rights-based research methods that foreground individual and local interpretation of realities and causes of food and nutrition insecurity, as well as needed changes for sustainable food systems, in the context of human rights claims (Eide, Kracht 2007).

Besides the need for a systems approach to overcome the agriculture-nutrition divide, local food governance approaches provide strategies to bridge this gap and to promote democratic participatory sovereignty over food systems that nourish communities. Based on the initiative of civil society groups, the concept of "food sovereignty" was introduced at the World Food Summit 1996, placing emphasis to the rights and specific needs of smallholder farmers and addressing core problems of hunger and poverty (Windfuhr, Jonsén 2005). Selected key principles of food sovereignty are as follows:

> "… the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems […] prioritizes local and national economies and markets [… and] implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social and economic classes and generations"[8].

Both food sovereignty and the human right to adequate food concentrate on access to productive resources to be able to feed oneself and one's family, representing a much more active approach then the widely used concept of food security.

According to Windfuhr and Jonsén (2005), food sovereignty can thus be seen as a condition for genuine food security, and the right to adequate food as a political tool to achieve it. Further, and importantly, both food sovereignty and the right to adequate food foreground women and gender equality for achieving improved access to productive resources. Based on the initiative of civil society organizations, FAO developed the "*Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security*" to encourage National States to develop a systematic evaluation approach through the development and inclusion of benchmarks and indicators to monitor progress towards achieving the right to adequate food (FAO 2005; cf. Eide, Kracht 2005; Eide, Kracht 2007). These Voluntary Guidelines serve the additional purpose of providing civil society organizations the same tools for developing shadow reports that can contest or complement those of National States.

As with food sovereignty, "community food security" is rooted in civil society and cross-sectoral partnerships (public, private, and private non-profit) that leverage a "community voice" into traditional power structures to redefine food and nutrition needs, security, and local-based strategies. The concept was introduced by Hamm and Bellows and is defined as "a condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (Hamm, Bellows 2003, p. 37). Community food security developed in part from theories of food and economic democracy (Koc et al. 1999) as well as the international human right to food (Bellows, Hamm 2003). Similarly, Anderson (2008) introduced the concept of rights-based food systems (RBFS) and their connection with more localized and sustainable agroecological systems that contribute to awareness of the environmental and social costs of current food systems practices. Communities are understood as integrated into social fabric, not as isolated units and the goal of community food security is self-determination, not economic dependency or even self-sufficiency. In some contexts, social protection remains necessary because not everyone can afford adequate food for a healthy life. Such pro-grams, if properly designed, can help stimulate local agriculture, for example by providing smallholders with increased certainty about demand for their products (Godfray et al. 2010).

"Food Policy Councils" (FPCs) are a North American phenomenon of the last 20 years wherein neighborhood food initiatives cooperate with diverse civic actors to develop policies for just, healthy food systems that serve local communities through a synergy of social and economic development. Food Policy Councils convene citizens, civil society organizations, government officials, farmers, and other local private sector entrepreneurs for the purpose of providing a comprehensive examination of a state or local food system. This unique, non-partisan form of civic engagement brings together a diverse array of food system stakeholders to develop food and agriculture policy recommendations.[9] The approach relies on human relationships, as advanced in the concept of so-called "value-webs" (cf. Block et al. 2008). The emphasis on inclusive and balanced participation of actors in local, regional and community food systems suggests that FPCs may serve as a model for women's participation in food and nutrition security approaches generally, and also as a model of relevance for other world regions.

5 Conclusion and Recommendations

The evaluation of agricultural production and nutrition intervention models highlights that we need alternative approaches. Grethe et al. (2011) emphasize that the focus should not be on increased food production, but suggest instead, i.a., to reduce post-harvest losses both in the developing and industrialized world; to lower meat consumption; and to use scarce resources more sustainably (cf. Schuftan 2010). In recognition of the limits of existing public (government, non-profit) and private sector (entrepreneurial, for profit) membership in bodies addressing world food and nutrition security, the recently revised and reorganized "Committee on World Food Security" (CFS) now includes a structure and processes that mainstream civil society participation (private, non-profit) through permanent representation (FAO 2009b).[10] We propose that development needs to engage approaches of building local self-reliance, community food

security, and local governance that foreground inclusive participation. Such approaches are perhaps slower and more expensive, but surely more cost-effective. The following additional points apply:

- A systems approach needs to begin from the perspective of local populations of women, men, and children regardless of a person's life stage in the reproductive cycle and inclusive of their social locations (race, ethnicity, gender, income, etc.), in both public and private spaces.
- A sustainable livelihood framework that links people, agro-ecologies, and viable economies should be applied to local food systems and governance.
- A rights-based approach should be incorporated into local food systems and governance founded on the precept that all individuals have the right to participate in and define food and nutrition security strategies.
- Local food systems and governance should be simultaneously linked to national and global food governance approaches, assuming they foreground grass-roots civil society interests.
- The separation of food production and nutrition objectives needs to be overcome.
- The focus on women and children in the right to adequate food and nutrition needs to move beyond their portrayal as disempowered victims in a maternal-child and housebound state and requires a proactive approach to protecting and centering women's voices.
- Chronic dependency on food aid and charity designed for emergencies must be avoided and overcome with a shifted goal on the development of local systems that promote self-determination.

Notes

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2) "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food." (Universal Declaration of Human Rights, Art. 25(1); http://www.un.org/en/documents/udhr/index.shtml – download 14.10.10).

3) According to FAO, the agricultural labour force includes people who are working or looking for work in formal or informal jobs and in paid or unpaid employment in agriculture (FAO 2011, p. 7). That includes self-employed women as well as women working on family farms.
4) The Lancet Series on Maternal and Child Undernutrition No. 1–5, The Lancet, January 17, 2008.
5) See Bezanson, Isenman 2010 and Horton et al. 2010.
6) Annals of Nutrition and Metabolism, 2009, 55 (Suppl. 1), pp. 1–761, Karger, http://www.karger.com/anm.
7) For the initial definition of Sustainable Livelihoods see Chambers and Conway (1992).
8) Available at http://www.foodsovereignty.org/FOOTER/Highlights.aspx (download 19.7.11).
9) See http://www.statefoodpolicy.org/.
10) CFS members agreed to wide-ranging reforms to make the CFS the foremost inclusive international and intergovernmental platform dealing with food security and nutrition and to be a central component in the evolving "Global Partnership for Agriculture, Food Security and Nutrition".

References

Anderson, M.D., 2008: Rights-based food systems and the goals of food systems reform. In: Agriculture and Human Values 25/4 (2008), pp. 593–608

Bellows, A.C.; Hamm, M.W., 2003: International Origins of Community Food Security Policies and Practices in the U.S. In: Critical Public Health, Special Issue: Food Policy 13/2 (2003), pp. 107–123

Bellows, A.C.; Lemke S.; Scherbaum, V., 2011: Das Recht auf Nahrung. Historischer Rückblick als Vorausschau zur Lösung der Ernährungskrise. In: Ernährungs Umschau 58 (2011), pp. 66–72

Bezanson, K.; Isenman, P., 2010: Policy Brief. Scaling Up Nutrition: A Framework for Action. In: Food and Nutrition Bulletin 31/1 (2010), pp. 178–186

Block, D.R.; Thompson, M.; Euken, J. et al., 2008: Engagement for transformation: Value webs for local food systems development. In: Agricultural Human Values 25 (2008), pp. 379–388

Bread for the World, 2009: Gender Mainstreaming in Practice. Nine examples of good practice from four continents. Dialogue 01; http://www.brot-fuer-die-welt.de/downloads/fachinformationen/dialog01_gender-mainstreaming_englisch.pdf (download 18.4.11)

Chambers, R.; Conway, G., 1992: Sustainable Rural Livelihoods: Practical concepts for the 21st Century. IDS Discussion Paper No. 296 (1992), Institute of Development Studies, Brighton

DFID – Department for International Development, 1999: Sustainable Livelihoods Guidance Sheets, DFID. London; http://www.eldis.org/vfile/upload/1/document/0901/section2.pdf (download 15.3.11)

Eide, W.B.; Kracht, U. (eds.), 2005: Food and Human Rights in Development. Legal and institutional dimensions and selected topics. Volume I. Antwerp

Eide, W.B.; Kracht, U. (eds.), 2007: Food and Human Rights in Development. Evolving issues and emerging applications. Volume II. Antwerp

FAO – Food and Agriculture Organization of the United Nations, 1996: Rome Declaration on World Food Security and World Food Summit Plan of Action. Rome

FAO – Food and Agriculture Organization of the United Nations, 2002: The State of Food Insecurity in the World 2001. Rome; http://www.fao.org/docrep/003/y1500e/y1500e00.htm (download 12.3.10)

FAO – Food and Agriculture Organization of the United Nations, 2005: Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security; http://www.fao.org/righttofood/publi_01_en.htm (download 5.3.11)

FAO – Food and Agriculture Organization of the United Nations, 2009a: How to Feed the World in 2050. Executive Summary; http://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf (download 27.5.11)

FAO – Food and Agriculture Organization of the United Nations, 2009b: Report of the thirty-fifth session of the Committee on World Food Security (CFS) Rome, 14–15 and 17 October 2009. Thirty-sixth session, November 2009, C 2009/21-Rev.1; ftp://ftp.fao.org/docrep/fao/meeting/018/K6406E_03.pdf (download 10.11.10)

FAO – Food and Agriculture Organization of the United Nations, 2011: The State of Food and Agriculture 2010–2011. Women in Agriculture: Closing the Gender Gap for Development

Godfray, H.C.J.; Beddington, J.R.; Crute, I.R. et al., 2010: Food Security – The challenge of feeding 9 billion people. In: Science 327 (2010), pp. 812–818

Grethe, H.; Dembélé, A.; Duman, N., 2011: How to feed the world's growing billions. Understanding FAO world food projections and their implications. Heinrich Boell Foundation (HBF) and World Wildlife Fund Germany (WWF); http://www.boell.de/downloads/2011-05-How-to-feed-the-Worlds-growing-billions.pdf (download 27.5.11)

Gross, R.; Schoeneberger, H.; Pfeifer, H. et al., 2000: Four Dimensions of Food and Nutrition Security: Definition and Concepts. In: ACC/SCN News. UN ACC Sub-Committee on Nutrition 20 (2000), pp. 20–25

Hamm, M.W.; Bellows, A.C., 2003: Community Food Security and Nutrition Educators. In: Journal of Nutrition Education and Behavior 35/1 (2003), pp. 37–43

Horton, S.; Shekar, M.; McDonal, C. et al., 2010: Scaling up Nutrition. What will it cost? The World Bank. Washington, DC

IAASTD – International Assessment of Agricultural Knowledge, Science and Technology for Development, 2009: Agriculture at a crossroads. Synthesis report. Washington, DC: Island Press. http://www.agassessment.org/docs/SR_Exec_Sum_280508_English.pdf (download 11.2.11)

IFPRI – International Food Policy Research Institute, 2005: Women. Still the key to food security; http://www.ifpri.org/sites/default/files/pubs/pubs/ib/ib33.pdf (download 18.4.11)

Jonsson, U., 2009: Paradigms in applied nutrition. Paper presented at the International Conference on Nutrition (ICN), Bangkok, Thailand, 5–9 October 2009; http://www.rtfn-watch.org/uploads/media/U._Jonsson_-_Paradigms_in_Applied_Nutrition.pdf (download 11.2.11)

Kabeer, N., 1999: Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment. In: Development and Change 30 (1999), pp. 435–464

Kent, G., 2002: A gendered perspective on nutrition rights. In: AGENDA 51 (2002), pp. 43–50

Klennert, K. (ed.), 2009: Achieving Food and Nutrition Security. Actions to Meet the Global Challenge. InWent; http://www.inwent.org/imperia/md/content/a-internet2008/portaliz/umweltundernaehrung/achieving_food_and_nutrition_security_2010.pdf (download 11.2.11)

Koc, M.; MacRae, R.; Mougeot, L.J.A. et al. (eds.), 1999: For Hunger-Proof Cities: Sustainable Urban Food Systems. International Development Research Centre (IDRC) and The Centre for Studies in Food Security. Ryerson Polytechnic University, Toronto

Kracht, U., 1999: Hunger, Malnutrition and Poverty: Trends and Prospects Towards the 21st Century. In: Kracht, U.; Schulz, M. (eds.): Food Security and Nutrition: The Global Challenge. St. Martin's. New York, pp. 55–74

Latham, M.; Jonsson, U.; Sterken, E. et al., 2011: Commentary: RUTF stuff. Can the children be saved with fortified peanut paste? In: World Nutrition 2/2 (2011), pp. 62–85

Lemke, S., 2010: Food security and right to adequate food in the context of land and agrarian reform in South Africa. In: Annual TROZ Report 2008/2009. Centre for Agriculture in the Tropics and Subtropics, University of Hohenheim, pp. 39–40; https://troz.uni-hohen-

heim.de/uploads/media/Report_TROZ_2008_2009.pdf (download 10.5.11)

Lemke, S.; Heumann, N.; Bellows, A.C., 2009: Gender and sustainable livelihoods: Case study of South African farm workers. In: International Journal of Innovation and Sustainable Development 4 2/3 (2009), pp. 195–205

Maxwell, S., 1996: Food Security: A Post-Modern Perspective. In: Food Policy 21/2 (1996), pp. 155–170

Maxwell, S.; Frankenberger, T.R. (eds.), 1992: Household Food Security: Concepts, Indicators, Measurements. A Technical Review. UNICEF. New York

OHCHR – Office of the High Commissioner for Human Rights, 1996: International Covenant on Economic, Social and Cultural Rights; http://www.unhchr.ch/html/menu3/b/a_cescr.htm (download 12.6.09)

Quisumbing, A.R., 2010: Implementing the internationally agreed goals and commitments in regard to gender equality and empowerment of women. Gender equality and poverty eradication: good practices and lessons learned. Commission on the Status of Women, Fifty-fourth session, United Nations: New York, 1–12 March 2010; http://www.un.org/womenwatch/daw/beijing15/ipanel_ECOSOC_AMR/Quisumbing_Gender%20equality%20and%20poverty%20eradication_3-2-10.pdf (download 6.5.11)

Quisumbing, A.R.; Smith, L.C., 2007: Case Study #4–5, Intrahousehold Allocation, Gender Relations, and Food Security in Developing Countries. In: Pinstrup-Andersen, P.; Cheng F. (eds.), 2007: Food policy for Developing countries: Case Studies; http://cip.cornell.edu/DPubS?service=UI&version=1.0&verb=Display&handle=dns.gfs/1200428166 (download 18.4.11)

Schuftan, C., 2010: Governments in times of crisis: seeking an excuse to brush-off their responsibility in upholding the human right to nutrition? In: Right to Food and Nutrition Watch (2010), pp. 18–21; http://www.rtfn-watch.org/uploads/media/C._Schuftan_-_original_paper.pdf (download 15.3.11)

Scoones, I., 1998: Sustainable rural livelihoods: A framework for analysis. IDS Working Paper, 72. Institute for Development Studies. Sussex

Scoones, I., 2009: Livelihoods perspectives and rural development. In: Journal of Peasant Studies 36/1 (2009); http://www.tandf.co.uk/journals/pdf/papers/FJPS_36_1_2009.pdf (download 15.3.11)

Sen, A., 1981: Poverty and Famines: An Essay on Entitlements and Deprivation. Clarendon Press, Oxford

The World Bank, FAO – Food and Agriculture Organization of the United Nations, IFAD – International Fund for Agriculture Development, 2009: Gender in agriculture sourcebook. The World Bank Publications, Geneva

UNICEF – United Nations International Children's Emergency Fund, 1990: Strategy for improved nutrition of children and women in developing countries. Unicef Policy Review, UNICEF. New York

*United Nations Sub-Commission on the Promotion and Protection of Human Right*s, 1999: Updated study on the right to food, The right to adequate food and to be free from hunger, submitted by Eide, A. E/CN.4/Sub.2/1999/12, 28 June 1999. Para 28

UNSCN – United Nations System Standing Committee on Nutrition, 2010: 6th Report on the World Nutrition Situation; http://www.unscn.org/files/Publications/RWNS6/html/index.html (download 15.3.11)

Windfuhr, M.; Jonsén, J., 2005: Food Sovereignty: Towards Democracy in Localized Food Systems. ITDG Publishing, The Schumacher Centre for Technology and Development

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