For the purpose of this document, agriculture includes all food-producing sectors, such as crop production, livestock, aquaculture, fisheries and forestry.

- 1 J. Dreze and A. Sen. 2011. Putting growth in its place. *Outlook*, 14 November 2011 (available at http://www.outlookindia.com/ article.aspx?278843).
- 2 J. Hoddinott and Y. Yohannes. 2002. Dietary diversity as a household food security indicator. Washington, DC, Food and Nutrition Technical Assistance Project, Academy for Educational Development. See also FAO. 2011. Guidelines for measuring household and individual dietary diversity. Rome.
- 3 FAO. 2009. The State of Food and Agriculture 2009: Livestock in the balance. Rome.
- 4 FAO. 2011. World Livestock 2011: Livestock in food security. Rome.
- 5 World Health Organization (WHO). 2004. Global strategy on diet, physical activity and health. Geneva, Switzerland.
- 6 J.N. Hall, S. Moore, S.B. Harper and J.W. Lynch. 2009. Global variability in fruit and vegetable consumption. *American Journal of Preventive Medicine*, 36(5): 402– 409.
- 7 See, for example, M. Roemer and M.K. Gugerty. 1997. Does economic growth reduce poverty? Consulting Assistance on Economic Reform (CAER) II Discussion Paper No. 4. Cambridge, USA, Harvard Institute for International Development (HIID); C.P. Timmer. 1997. How well do the poor connect to the growth process? CAER II Discussion Paper No. 17. Cambridge, USA, HIID. (mimeo); F. Bourguignon. 2003. The growth elasticity of poverty reduction: explaining heterogeneity across countries and time periods. In T. Eicher and S. Turnovsky, eds. Inequality and growth. Theory and policy implications, pp. 3-26. Cambridge, USA, MIT Press; and A. Kraay. 2006. When is growth pro-poor? Evidence from a panel of countries. Journal of Development Economics, 80(1): 198-227.
- 8 M.K. Gugerty and C.P. Timmer. 1999. Growth, inequality, and poverty alleviation: implications for development assistance. CAER II Discussion Paper No. 50. Cambridge, USA, HIID; M. Ravallion. 2001. Growth, inequality and poverty: looking beyond averages. World Development, 29(11): 1803–1815; R.H. Adams Jr. 2004. Economic growth, inequality and poverty: estimating the growth elasticity of poverty. World Development, 32(12): 1989–2014; A.K. Fosu. 2009. Inequality and the impact of growth on poverty: comparative evidence for sub-Saharan Africa. Journal of Development Studies, 45(5): 726–745.
- 9 A. Alesina and D. Rodrik. 1994. Distributive politics and economic growth. *The*

Quarterly Journal of Economics, 109(2): 465–490; T. Persson and G. Tabellini. 1994. Is inequality harmful for growth? *The American Economic Review*, 84(3): 600– 621; A.G. Berg and J.D. Ostry. 2011. Equality and efficiency. Is there a trade-off between the two or do they go hand in hand? *Finance and Development*, 48(3): 12–15.

- E. Ligon and E. Sadoulet. 2007. Estimating the effects of aggregate agricultural growth on the distribution of expenditures. Background paper for the World Development Report 2008. Washington, DC, World Bank; L. Christiaensen, L. Demery and J. Kuhl. 2011. The (evolving) role of agriculture in poverty reduction: an empirical perspective. Journal of Development Economics, 96(2): 239–254.
- 11 M. Ravallion. 1990. Income effects on undernutrition. Economic Development and Cultural Change, 38(3): 489-515; S. Subramanian and A. Deaton. 1996. The demand for food and calories. Journal of Political Economy, 104(1): 133-162; P.J. Dawson and R. Tiffin. 1998. Estimating the demand for calories in India. American Journal of Agricultural Economics, 80(3): 474-481; N. Roy. 2001. A semiparametric analysis of calorie response to income change across income groups and gender. The Journal of International Trade and Economic Development, 10(1): 93-109; J. Gibson and S. Rozelle. 2002. How elastic is calorie demand? Parametric, nonparametric and semiparametric results for urban Papua New Guinea. Journal of Development Studies, 38(6): 23-46; L. Smith and L. Haddad. 2002. How potent is economic growth in reducing undernutrition? What are the pathways of impact? New cross-country evidence. Economic Development and Cultural Change, 51(1): 55-76; R. Tiffin and P.J. Dawson. 2002. The demand for calories: some further estimates from Zimbabwe. Journal of Agricultural Economics, 53(2): 221-232; A. Abdulai and D. Aubert. 2004. Nonparametric and parametric analysis of calorie consumption in Tanzania. Food Policy, 29(2): 113-129.
- 12 FAO. 2011. The State of Food and Agriculture 2010–11. Women in agriculture: closing the gender gap for development. Rome.
- 13 Smith and Haddad (2002) (see note 11); L. Haddad, H. Alderman, S. Appleton, L. Song and Y. Yohannes. 2003. Reducing child malnutrition: how far does income growth take us? *The World Bank Economic Review*, 17(1): 107–131.
- Committee on World Food Security (CFS).
 2012. Global strategic framework for food security and nutrition. Second draft, May

2012, p. 7 (available at http://www.fao.org/ fileadmin/templates/cfs/Docs1112/WGs/ GSF/MD976E_GSF_Draft_Two.pdf).

- 15 M. Mazzocchi, B. Shankar and B. Traill. 2012 (forthcoming). *The development of global diets since ICN 1992: influences of agri-food sector trends and policies*. Rome, FAO.
- 16 M. Mazzocchi, C. Brasili and E. Sandri. 2008. Trends in dietary patterns and compliance with World Health Organization recommendations: a cross-country analysis. *Public Health Nutrition*, 11(5): 535–540. While this assessment covered a longer period from 1961 to 2002, similar patterns hold for the period 1992–2007, see Mazzocchi et al. (2012) (note 15).
- 17 WHO. 2011. Millennium Development Goals: progress towards the health-related Millennium Development Goals. Fact sheet No. 290. Geneva, Switzerland.
- 18 G. Demombynes and S.K. Trommlerová. 2012. What has driven the decline of infant mortality in Kenya? Policy Research Working Paper 6057. Washington, DC, World Bank.
- 19 M.A. Subramanyam, I. Kawachi, L.F. Berkman and S.V. Subramanian. 2011. Is economic growth associated with reduction in child undernutrition in India? *PLOS Medicine*, 8(3) (available at http:// www.plosmedicine.org/article/ info%3Adoi%2F10.1371%2Fjournal. pmed.1000424).
- 20 WHO. 2012. Global Health Observatory (GHO) data repository (available at http:// www.who.int/gho/en/).
- 21 United Nations System Standing Committee on Nutrition (UNSCN). 2010. *Sixth Report on the World Nutrition Situation: Progress in nutrition*. Geneva, Switzerland.
- 22 S. Horton. 1999. Opportunities for investments in nutrition in low-income Asia. Asian Development Review, 17 (1,2): 246– 273. S. Horton. 1992. Unit costs, costeffectiveness, and financing of nutrition interventions. Policy Research Working Paper WPS 952. Washington, DC, World Bank.
- 23 I. Darnton-Hill, P. Webb, P.W.J. Harvey, J.M. Hunt, N. Dalmiya, M. Chopra, M.J. Ball, M.W. Bloem and B. de Benoist. 2005. Micronutrient deficiencies and gender: social and economic costs. *The American Journal of Clinical Nutrition*, 81(5): 11985–1205S.
- 24 Micronutrient Initiative. 2009. Investing in the Future. Global Report 2009 (available at http://www.unitedcalltoaction.org/ documents/Investing_in_the_future.pdf).

- 25 B.M. Popkin. 2006. Global nutrition dynamics: the world is shifting rapidly toward a diet linked with noncommunicable diseases. *The American Journal of Clinical Nutrition*, 84(2): 289–298.
- 26 Mazzocchi et al. (2012) (see note 15).
- 27 A. Omran. 1971. The epidemiologic transition: a theory of the epidemiology of population change. *The Milbank Memorial Fund Quarterly*, 49(4): 509–38.
- 28 WHO. 2009. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva, Switzerland.
- 29 WHO. 2012. *Obesity and overweight*. Fact sheet No. 311. Geneva, Switzerland.
- 30 Some authors even refer to a triple burden of malnutrition, including as a third factor micronutrient deficiencies causing various physical and cognitive deficits: See A. Herforth, A. Jones and P. Pinstrup-Andersen. 2012. Prioritizing nutrition in agriculture and rural development projects: guiding principles for operational investments (available at http://dyson. cornell.edu/faculty_sites/pinstrup/pdfs/ wbdec2010.pdf).
- 31 For further evidence of the double burden of malnutrition, see The Chicago Council on Global Affairs. 2011. *Bringing agriculture to the table: how agriculture and food can play a role in preventing chronic disease*. Chicago, USA.
- 32 J.L. Garrett and M.T. Ruel. 2005. Stunted child – overweight mother pairs: prevalence and association with economic development and urbanization. *Food and Nutrition Bulletin*, 26(2): 209–221.
- D. Headey. 2011. Turning economic growth into nutrition-sensitive growth.
 IFPRI 2020 Conference: Leveraging Agriculture for Improving Nutrition and Health, Conference Paper 6. New Delhi, 10–12 February 2011.
- 34 FAO. 2004. The State of Food Insecurity in the World 2004: Monitoring progress towards the World Food Summit and Millennium Development Goals. Rome.
- 35 Much of this paragraph is based on the analysis of Christiaensen *et al.* (2011) (see note 10).
- 36 Much of this paragraph is based on the analysis of Christiaensen *et al.* (2011) (see note 10).
- 37 World Bank. 2008. World Development Report 2008: Agriculture for Development. Washington, DC.
- 38 M. Ravallion. 2009. A comparative perspective on poverty reduction in Brazil, China and India. World Bank Policy Research Working Paper No. 5080. Washington, DC, World Bank.
- A. de Janvry and E. Sadoulet. 2010.Agricultural growth and poverty reduction:

additional evidence. *The World Bank Research Observer*, 25(1): 1–20.

- 40 FAO. 2012. Decent rural employment for food security: a case for action. Rome.
- 41 United Nations Research Institute for Social Development (UNRISD). 2011. Combating poverty and inequality: structural change, social policy and politics. Geneva, Switzerland.
- 42 De Janvry and Sadoulet (2010) (see note 39).
- 43 Much of this section is based on FAO. 2010. Policies and institutions to support smallholder agriculture. FAO Committee on Agriculture document COAG/2010/6. Twenty-second Session, Rome, 16–19 June 2010.
- 44 S. Fan and C. Chan-Kang. 2005. Is small beautiful? Farm size, productivity, and poverty in Asian agriculture. *Agricultural Economics*, 32: 135–146.
- 45 United Nations. 2012. *The future we want*. Outcome document of the Rio+20 United Nations Conference on Sustainable Development (available at http://www.un. org/en/sustainablefuture/).
- 46 Much of this section is based on International Fund for Agricultural Development (IFAD). 2010. Rural Poverty Report 2011: New realities, new challenges: new opportunities for tomorrow's generation. Rome.
- 47 B. Davis, P. Winters, G. Carletto, K. Covarrubias, E.J. Quiñones, A. Zezza, K. Stamoulis, C. Azzarri and S. DiGiuseppe. 2010. A cross-country comparison of rural income generating activities. *World Development*, 38(1): 48–63. See also the RIGA database (available at http://www. fao.org/economic/riga/en/).
- 48 T.W. Schultz. 1964. Transforming traditional agriculture. New Haven, USA, Yale University Press.
- 49 S. Haggblade, P.B.R. Hazell, and P.A. Dorosh. 2007. Sectoral growth linkages between agriculture and the rural nonfarm economy. *In S.* Haggblade, P.B.R. Hazell and T. Reardon, eds. *Transforming the rural nonfarm economy: Opportunities and threats in the developing world*, pp. 141–182. Baltimore, USA, John Hopkins University Press / New Delhi, India, Oxford University Press.
- 50 Christiaensen et al. (2011) (see note 10).
- 51 S. Wiggins and P.B.R. Hazell. 2008. Access to rural non-farm employment and enterprise development. Background paper for the Rural Poverty Report 2011. Rome, IFAD.
- 52 S. Bhide and A.K. Mehta. 2006. Correlates of incidence and exit from chronic poverty in rural India: evidence from panel data. *In* A.K. Mehta and A. Shepherd, eds. *Chronic poverty and development policy in India*, pp. 53–85. New Delhi, Sage Publications.

- 53 Wiggins and Hazell (2008) (see note 51).
- 54 FAO. 2003. Anti-Hunger Programme. A twin-track approach to hunger reduction: priorities for national and international action. Rome.
- 55 CFS (2012) (see note 14).
- 56 D. Bundy, C. Burbano, M. Grosh, A. Gelli, M. Jukes and L. Drake. 2009. *Rethinking school feeding: social safety nets, child development, and the education sector*. Washington, DC, World Bank; S. Devereux, R. Sabates-Wheeler, B. Guenther, A. Dorward, C. Poulton and R. Al-Hassan. 2008. *Linking social protection and support to small farmer development*. Rome, FAO; K. Greenblott. 2007. *Social protection in the era of HIV and AIDS: examining the role of food-based interventions*. Occasional Paper No. 17. Rome, WFP.
- H. Alderman and D. Bundy. 2012. School feeding programs and development: Are we framing the question correctly? Washington, DC, *The World Bank Research Observer*, 27(2): 204–221.
- 58 Analysis by the Boston Consulting Group shows productivity gains of up to US\$1782 for every US\$146 invested in Kenyan school feeding programmes. See S.W. Omamo, U. Gentilini and S. Sandström, eds. 2010. Revolution: From Food Aid to Food Assistance – innovations in overcoming hunger. Rome, WFP.
- 59 These subsidies are best used for inferior foods, i.e. foods for which consumption declines with rising income. However, in most countries it is difficult to find such foods, and hence the approach is to use quality or packaging discrimination to try to orient consumption away from wealthier households.
- 60 L. Tuck and K. Lindert. 1996. From universal subsidies to a self-targeted program: a case study in Tunisian reform. Discussion Paper No. 351. Washington, DC, World Bank.
- 61 The World Bank's ASPIRE online tool is the most up-to-date compilation of global social protection and labour estimates, including data from 57 countries – mostly in the developing world – from 2005 to 2010.
- 62 The Universal Declaration of Human Rights; International Covenant on Economic, Social and Cultural Rights (ICESCR), ILO Social Security (Minimum Standards) Convention 102.
- 63 H. Alderman and R. Yemtsov. 2012. Productive role of safety nets. Social Protection and Labor Discussion Paper No. 1203. Background paper for the World Bank 2012–2022 Social Protection and Labor Strategy. Washington, DC, World Bank.
- 64 A. Warner. 2010. *Cost–benefit analysis in World Bank projects*. Independent Evaluation Group. Washington, DC, World Bank.

- 65 L. Brown and U. Gentilini. 2007. On the edge: the role of food-based safety nets in helping vulnerable household manage food insecurity. *In* B. Guha-Khasnobis, S.S. Acharya and B. Davis. *Food insecurity, vulnerability and human rights failure*. Basingstoke, UK, Palgrave Macmillan and United Nations University-WIDER.
- 66 U. Gentilini. 2007. *Cash and food transfers: a primer*. Occasional Paper No. 18. Rome, WFP.
- 67 A. Fiszbein and N. Schady. 2009. Conditional cash transfers: reducing present and future poverty. Washington, DC, World Bank.
- 68 Weight for age provides insights into the short-term impact of improved nutrition, whereas height for age provides information on the long-term effects of improved nutrition.
- 69 S. Bailey and K. Hedlund. 2012. The impact of cash transfers on nutrition in emergency and transitional contexts: a review of evidence. London, Overseas Development Institute.
- 70 J.M. Agüero, M.R. Carter and I. Woolard. 2007. The impact of unconditional cash transfers on nutrition: the South African child support grant. Working Paper No. 39. New York, USA, International Poverty Centre, United Nations Development Programme.
- 71 Various types of safety nets (described earlier) can also reduce the impact of the shock by filling the troughs in Figure 19.
- 72 M. Hellmuth, D. Osgood, U. Hess, A. Moorhead and H. Bhojwani. 2009. Index Insurance and climate risk: prospects for development and disaster management. IRI Climate and Society No. 2. New York, USA, Columbia University.
- 73 N. Balzer and U. Hess. 2010. Climate change and weather risk management: evidence from index-based insurance schemes in China and Ethiopia. *In S.W. Omamo*, U. Gentilini and S. Sandström, eds. *Revolution: from food aid to food assistance* – *innovations in overcoming hunger*, pp. 103–122. Rome, WFP.
- 74 In the baseline year of 2009, teff yields realized by farmers who later bought insurance were 86 percent of those obtained by farmers who did not buy insurance. In 2010, teff yields of those who bought insurance were 476 percent of the yields realized by those who did not.
- 75 H. Djebbari and N.B. Hassine. 2011. Methodologies to analyze the local economy impact of SCTs (available at http://www.fao. org/fileadmin/user_upload/p2p/Publications/ ReviewLocalEconomyImpacts_ finalreport_27june2011.pdf); A. Fishbein, and N. Schady. 2009. Conditional cash transfers for attacking present and future poverty. Policy Research Report. Washington, DC, World Bank; S. Handa and B. Davis. 2006. The experience of conditional cash transfers in Latin America and the

Caribbean. *Development Policy Review*, 24(5): 513–536.

- 76 A. Barrientos. 2012. Social transfers and growth: What do we know? What do we need to find out? World Development 40(1): 11–20; B. Davis, G. Carletto and P. Winters. 2010. Migration, transfers and economic decision making among agricultural households. Introduction to Special Issue, Journal of Development Studies, 46(1), January.
- 77 S.W. Parker and E. Skoufias. 2000. The impact of PROGRESA on work, leisure, and time allocation. Washington, DC, IFPRI; E. Galasso. 2006. With their effort and one opportunity: alleviating extreme poverty in Chile. Unpublished manuscript. Washington, DC, World Bank; E. Skoufias and V. di Maro. 2006. Conditional cash transfers, adult work incentives, and poverty. Policy Research Working Paper 3973. Washington, DC, World Bank; E. Edmonds and N. Schady. 2008. Poverty alleviation and child labor. Policy Research Working Paper 4702. Washington, DC, World Bank; V. Amarante, and A. Vigorito. 2011. Cash transfer programmes, income inequality and regional disparities. The case of the Uruguayan Asignaciones Familiares. Cambridge Journal of Regions, Economy and Society, 4(1): 139-154; M.L. Alzúa, G. Cruces and L. Ripani. 2010. Welfare programs and labor supply in developing countries: experimental evidence from Latin America. CEDLAS Working Paper 95. La Plata, Argentina, Universidad Nacional de La Plata
- J.E. Todd, P. Winters and T. Hertz. 2010. Conditional cash transfers and agricultural production: lessons from the Oportunidades experience in Mexico. *Journal of Development Studies*, 46(1): 39–67; P.J. Gertler, S.W. Martinez and M. Rubio-Codina. 2012. Investing cash transfers to raise long-term living standards. *American Economic Journal: Applied Economics*, 4(1): 164–192.
- 79 S. Handa, B. Davis, M. Stampini and P. Winters. 2010. Heterogeneous treatment effects in conditional cash transfer programmes: assessing the impact of Progresa on agricultural households. *Journal* of Development Effectiveness, 2(3): 320–335.
- 80 K. Covarrubias, B. Davis and P. Winters. 2012. From protection to production: productive impacts of the Malawi social cash transfer scheme. *Journal of Development Effectiveness*, 4(1): 50–77; R. Boone, K. Covarrubias, B. Davis. and P. Winters. 2012. *Cash transfer programs and agricultural production: the case of Malawi*. Rome, FAO. (mimeo).
- 81 D. Gilligan, J. Hoddinott and A. Taffesse. 2009. The impact of Ethiopia's productive safety net program and its linkages. *Journal* of *Development Studies*, 45(10): 1684–1706.
- 82 G. Berhane, J. Hoddinott, N. Kumar and A.S. Taffesse. 2011. *The impact of Ethiopia's*

productive safety nets and household asset building programme: 2006–2010. Washington, DC, IFPRI.

- 83 See, for example, World Bank (2008) (see note 37); X. Diao, D. Headey and M. Johnson. 2008. Toward a green revolution in Africa: What would it achieve, and what would it require? *Agricultural Economics*, 39(S1): 539–550; G. Toenniessen, A. Adesina and J. DeVries. 2008. Building an alliance for a Green Revolution in Africa. *Annals of the New York Academy of Sciences*, 1136: 233–242.
- 84 M. Johnson, P. Hazell and A. Gulati. 2003. The role of intermediate factor markets in Asia's Green Revolution: Lessons for Africa? *American Journal of Agricultural Economics*, 85(5): 1211–1216.
- 85 A. Zezza, P. Winters, B. Davis, G. Carletto, K. Covarrubias, L. Tasciotti and E. Quiñones. 2011. Rural household access to assets and markets: a cross-country comparison. *European Journal of Development Research*, 23: 569–597.
- For an example from the Latin American context, see E. Sadoulet, A. de Janvry, and B. Davis. 2001. Cash transfer with income multiplier: PROCAMPO in Mexico. *World Development*, 29(6): 1043–1056.
- 87 Brown and Gentilini (2007) (see note 65).
- 88 G. Berhane, J. Hoddinott, N. Kumar and A.S. Taffesse. 2011. The impact of Ethiopia's Productive Safety Nets and Household Asset Building Programme: 2006–2010. Washington, DC, IFPRI.
- R. Holzmann, ed. 2009. Social protection and labor at the World Bank, 2000–08.
 Washington, DC, World Bank.
- 90 Government of Ethiopia. 2009. Food Security Programme 2010–2014. Addis Ababa, Ministry of Agriculture and Rural Development.
- 91 The FAO methodology for estimating undernourishment as traditionally applied until (and including) the 2011 edition of *The State of Food Insecurity in the World is summarized in an extended technical note available online at www.fao.org/* publications/sofi/en/. A detailed description is also provided in L. Naiken, 2003. FAO, methodology for estimating the prevalence of undernourishment. *In* FAO *Measurement and assessment of food deprivation and undernutrition.* Proceedings of the International Scientific Symposium, Rome, 26–28 June 2002.
- 92 See www.fao.org/cfs/cfs-home/ cfsroundtable1/en/
- 93 See CFS. 2011. Outcome of "Roundtable to Review Methods used to Estimate the Number of Hungry" (available at http:// www.fao.org/docrep/meeting/023/mc204E. pdf).
- 94 See http://esa.un.org/wpp/index.htm.

- 95 See R. Sibrián, J. Komorowska and J. Mernies. 2006. Estimating household and institutional food wastage and losses in the context of measuring food deprivation and food excess in the total population. FAO Statistics Division Working Paper No. ESS/ ESSA/001e. Rome, FAO.
- 96 J. Gustavsson, C. Cederberg, U. Sonesson, R. van Otterdijk and A Meybeck. 2011. Global food losses and food waste: extent, causes and prevention. Study conducted for the International Congress SAVE FOOD! at Interpack 2011, Düsseldorf, Germany. Rome, FAO.

Notes and sources for boxes

- Box 2: 1. International Labour Organization (ILO). 2006. Decent Work FAQ: Making decent work a global goal (available at http://www.ilo.org/global/about-the-ilo/ press-and-media-centre/insight/ WCMS_071241/lang--en/index.htm). 2. FAO. 2012. Decent rural employment for food security: a case for action. Rome. 3. A. Dorward, S. Fan, J. Kydd, H. Lofgren, J. Morrison, C. Poulton, N. Rao, L. Smith, H. Tchale, S. Thorat, I. Urey and P. Wobst. 2004. Institutions and policies for propoor agricultural growth. Development Policy Review, 22(6): 611-622. 4. International Labour Organization (ILO)/ FAO/International Union of Food. Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations. 2004. Agricultural workers and their contribution to sustainable agriculture and rural development. Geneva, Switzerland.
- Box 6: 1. E. Duflo. 2005. Gender equality in development. (mimeo) (available at http:// economics.mit.edu/files/799; World Bank, 2001. Engendering development: through gender equality in rights, resources, and voice. World Bank Policy Research Report No. 21776. Washington, DC.
 2. S. Sandström and L. Tchatchua. 2010. Do cash transfers improve food security in emergencies? Evidence from Sri Lanka. In Omama et al. (2010) (see note 58). FAO (2011) (see note 12).

3. F. Veras, R. Ribas and R. Osorio. 2007. Evaluating the impact of Brazil's Bolsa Familia: cash transfer programs in comparative perspective. Brasilia, International Poverty Center. 4. M. Suarez, et al., 2006. The Bolsa Família Programme and the tackling of gender inequalities. Report to Brazilian Ministry of Social Development and Fight against Hunger (MDS) and DFID, Brasilia. 5. M. Grosh, C. del Ninno, E. Tesliuc and A. Ouerghi. 2008. For protection and promotion: the design and implementation of effective safety nets. Washington, DC, World Bank. 6. B. Shubert and M. Huijbregts. 2006.

The Malawi Social Cash Transfer Pilot

- 97 FAO. 1996. *The Sixth World Food Survey* 1996. Rome.
- 98 As the lognormal distribution is fully characterized by only two parameters (μ and σ), the skewness coefficient is a simple monotonic function of the standard deviation,

$$SK = \left(e^{\sigma^2} + 2\right)\sqrt{e^{\sigma^2} - 1}$$

and can also be conveniently expressed as a function of the coefficient of variation, according to the following formula:

 $SK = (CV^2 + 3) \times CV$

Scheme: preliminary lessons learnt. Paper presented at the conference Social protection initiatives for children, women and families: an analysis of recent experiences. UNICEF, New York, USA, 30–31 October 2006.

7. S.R. Gitter and B.L. Barham. 2008. Women's power, conditional cash transfers, and schooling in Nicaragua. *The World Bank Economic Review*, 22(2): 271– 290.

 J. Drèze and G.G. Kingdon. 2001.
 School participation in rural India. *Review* of *Development Economics*, 5(1): 1–24.
 A. Ahmed, A. Quisumbing, M. Nasreen, J. Hoddinott, and E. Bryan. 2009.
 Comparing food and cash transfers to the ultra poor in Bangladesh. Washington, DC, IFPRI.

 B. Rogers and J. Coates. 2002. Foodbased safety nets and related programs.
 Social Safety Net Primer Series.
 Washington, DC, World Bank.
 H.E. Bouis and J. Hunt. 1999. Linking food and nutrition security: past lessons and future opportunities. Asian Development Review, 17(1/2): 168–213.

Box 7: 1. E. Skoufias, S. Tiwari and H. Zaman. 2011. Can we rely on cash transfers to protect dietary diversity during food crises? Estimates from Indonesia. Policy Research Working Paper 5548. Washington, DC, World Bank.
2. FAO. 2011. Impact of the financial and economic crisis on nutrition: policy and programme responses (available at http:// ebookbrowse.com/gdoc.php?id=1654943 41&url=44b28e9a058c2c755b9efbd4924 5a33f).

 Skoufias *et al.* (2011) (see note 1).
 R. Sabates-Wheeler and S. Devereux.
 Cash transfers and high food prices: explaining outcomes on Ethiopia's productive safety net programme. *Food Policy*, 35(4): 274–285.

5. A. Ahmed, A. Quisumbing, M. Nasreen, J. Hoddinott, and E. Bryan. 2009. *Comparing food and cash transfers to the ultra poor in Bangladesh*. Washington, DC, IFPRI. This makes it clear that, when assuming a lognormal model, the skewness cannot be changed independently of the coefficient of variation.

- 99 As energy requirements are provided as a function of body masses, the median height of an individual in a group is used to estimate the minimum body mass compatible with healthy status for the typical individual in that group. We do so by considering the weight that would yield a body mass index equal to the fifth percentile of the distribution of normal body mass indexes, according to the WHO.
- Box 9 sources: J. Hoddinott, J. Maluccio, J. Behrman, R. Flores and R. Martorell, 2008, Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults. The Lancet, 371: 411-416; J.R. Behrman, S. Duryea and J. Maluccio. 2008. Addressing early childhood deficits in Guatemala. Washington, D.C., Inter-American Development Bank; J.R. Behrman, M.C. Calderon, J. Hoddinott, R. Martorell, S. Preston and A. Stein. 2008. Early life nutrition affects nutritional status of next generation. Philadelphia, USA, University of Pennsylvania.

Box 11: 1. K. Subbarao. 2003. Systemic shocks and social protection: role and effectiveness of public works programs. Social Protection Discussion Paper Series No. 0302. Washington, DC, World Bank; R. Antonopoulos. 2009. Promoting gender equality through stimulus packages and public job creation: lessons learned from South Africa's Expanded Public Works Programme. Public Policy Brief 101. New York, USA, The Levy Economics Institute of Bard College; N. Kabeer. 2008. Mainstreaming gender in social protection for the informal economy, edited by T Johnson. London, Commonwealth Secretariat. 2. R. Holmes and N. Jones, 2009. Gender

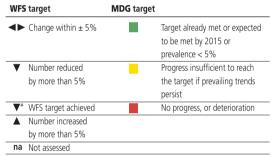
inequality, risk and vulnerability in the rural economy: re-focusing the public works agenda to take account of economic and social risks. Background report for SOFA 2010. London: Overseas Development Institute.

3.E. Enarson. 2000. Gender and natural disasters. InFocus Programme on Crisis Response and Reconstruction Working Paper 1. Geneva, Switzerland, Recovery and Reconstruction Department, ILO. 4. P.A. Higgins and H. Alderman. 1993. Labor and women's nutrition: a study of energy expenditure, fertility, and nutritional status in Ghana. Washington, DC, Cornell Food and Nutrition Policy Program Publication Department.

NOTES for Annex 1

Countries revise their official statistics regularly for the past as well as the latest reported period. The same holds for population data of the United Nations. Whenever this happens, FAO revises its estimates of undernourishment accordingly. Therefore, users are advised to refer to changes in estimates over time only within the same edition of *The State of Food Insecurity in the World* and refrain from comparing data published in editions for different years.

- 1. World Food Summit goal: halve, between 1990–92 and 2015, the number of undernourished people.
- 2. Millennium Development Goal 1, target 1C: halve, between 1990 and 2015, the proportion of people who suffer from hunger. Indicator 1.9: Proportion of population below minimum level of dietary energy consumption (undernourishment). The results are obtained following a harmonized methodology and are based on the latest globally available data averaged over three years. Some countries may have more recent data which, if used, could lead to different estimates of the prevalence of undernourishment and consequently of the progress achieved.
- 3. The latest report period refers to 2010–12 provisional estimates and the baseline refers to 1990–92. For countries that did not exist in the baseline period, the 1990–92 proportion of undernourished is based on 1993–95 and the number of undernourished is based on this proportion applied to their 1990–92 population.
- 4. The symbols and colour indicators show the progress that is projected to be achieved by year 2015, if current trends continue:



5. Countries, areas and territories for which there were insufficient data to conduct the assessment are not considered. These include: American Samoa, Andorra, Anguilla, Aruba, Bahrain, Bhutan, British Indian Ocean Territory, British Virgin Islands, Canton and Enderbury Islands, Cayman Islands, Christmas Island, Cocos (Keeling) Islands, Cook Islands, Equatorial Guinea, Faeroe Islands, Falkland Islands (Malvinas), French Guiana, Gibraltar, Greenland, Guadeloupe, Guam, Holy See, Johnston Island, Liechtenstein, Marshall Islands, Martinique, Micronesia (Federated States of), Midway Island, Monaco, Nauru, Niue, Norfolk Island, Northern Mariana Islands, Oman, Palau, Pitcairn Islands, Puerto Rico, Qatar, Réunion, Saint Helena, Saint Pierre and Miquelon, San Marino, Singapore, Tokelau, Tonga, Turks and Caicos Islands, Tuvalu, US Virgin Islands, Wake Island, Wallis and Futuna Islands, Western Sahara.

Country composition of the special groupings:

- 6. Includes: Afghanistan, Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Uganda, United Republic of Tanzania, Vanuatu, Yemen, Zambia.
- Includes: Afghanistan, Armenia, Azerbaijan, Bolivia (Plurinational State of), Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Ethiopia, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, Malawi, Mali, Mongolia, Nepal, Niger, Paraguay, Republic of Moldova, Rwanda, Swaziland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkmenistan, Uganda, Uzbekistan, Zambia, Zimbabwe.

- Includes: Antigua and Barbuda, Bahamas, Barbados, Belize, Cape Verde, Comoros, Cuba, Dominica, Dominican Republic, Fiji Islands, French Polynesia, Grenada, Guinea Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Mauritius, Netherlands Antilles, New Caledonia, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent/Grenadines, Samoa, Sao Tome and Principe, Seychelles, Solomon Islands, Suriname, Timor-Leste, Trinidad and Tobago, Vanuatu.
- Includes: Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic People's Republic of Korea, Democratic Republic of the Congo, Eritrea, Ethiopia, Gambia, Guinea, Guinea Bissau, Haiti, Kenya, Kyrgyzstan, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sierra Leone, Somalia, Tajikistan, Togo, Uganda, United Republic of Tanzania, Zimbabwe.
- 10. Includes: Albania, Armenia, Belize, Bolivia (Plurinational State of), Cameroon, Cape Verde, Congo, Côte d'Ivoire, Djibouti, Egypt, El Salvador, Fiji, Georgia, Ghana, Guatemala, Guyana, India, Indonesia, Iraq, Honduras, Kiribati, Lao People's Democratic Republic, Lesotho, Republic of Moldova, Mongolia, Morocco, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Paraguay, Philippines, Samoa, Sao Tome and Principe, Senegal, Solomon Islands, Sri Lanka, Sudan, Swaziland, Syrian Arab Republic, Timor-Leste, Ukraine, Uzbekistan, Vanuatu, Viet Nam, Occupied Palestinian Territory, Yemen, Zambia.
- 11. Includes: Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic People's Republic of Korea, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guinea, Guinea Bissau, Haiti, Honduras, India, Indonesia, Iraq, Kenya, Kiribati, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mongolia, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Papua New Guinea, Philippines, Republic of Moldova, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, Sudan, Syria, Tajikistan, Timor-Leste, Togo, Uganda, United Republic of Tanzania,Uzbekistan, Yemen, Zambia, Zimbabwe.
- 12. In addition to the countries listed in the table, includes: Cape Verde, Comoros, Democratic Republic of the Congo, Djibouti, Guinea Bissau, Gabon, Gambia, Lesotho, Mauritania, Mauritius, Sao Tome and Principe, Seychelles, Somalia, Swaziland.
- In addition to the countries listed in the table, includes: Antigua and Barbuda, Bahamas, Barbados, Dominica, Grenada, Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent/Grenadines, Jamaica, Trinidad and Tobago.
- 14. In addition to the countries listed in the table includes Belize, Guyana, Suriname.
- 15. In addition to the countries listed in the table includes: Afghanistan, Maldives.
- 16. In addition to the countries listed in the table, includes: Myanmar, Brunei Darussalam, Timor-Leste.
- 17. In addition to the countries listed in the table, includes: Iraq, and Occupied Palestinian Territory.
- 18. Includes: Fiji Islands, French Polynesia, Kiribati, New Caledonia, Papua New Guinea, Samoa, Solomon Islands, Vanuatu.

KEY

- < 0.5 number of undernourished less than 0.5 million
- < 5 proportion of undernourished less than five percent
- na not applicable
- ns not statistically significant.

Source: FAO estimates.

The State of Food Insecurity in the World

Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition

The State of Food Insecurity in the World 2012 presents new estimates of undernourishment based on a revised and improved methodology. The new estimates show that progress in reducing hunger during the past 20 years has been better than previously believed, and that, given renewed efforts, it may be possible to reach the MDG hunger target at the global level by 2015. However, the number of people suffering from chronic undernourishment is still unacceptably high, and eradication of hunger remains a major global challenge.

This year's report also discusses the role of economic growth in reducing undernourishment. Economic growth is most effective in reducing poverty and hunger when it increases employment and income-earning opportunities that the poor can take advantage of. Sustainable agricultural growth is often effective in reaching the poor because most of the poor and hungry live in rural areas and depend on agriculture for a significant part of their livelihoods. However, growth will not necessarily result in better nutrition for all. Policies and programmes that will ensure "nutrition-sensitive" growth include supporting increased dietary diversity, improving access to safe drinking water, sanitation and health services and educating consumers regarding adequate nutrition and child care practices.

Economic growth takes time to reach the poor, and may not reach the poorest of the poor. Therefore, social protection is crucial for eliminating hunger as rapidly as possible. Furthermore, when properly structured, social protection also promotes economic growth by building human capital and helping farmers manage risk so that they can adopt improved technologies. Finally, rapid progress in reducing hunger requires government action to provide key public goods and services within a governance system based on transparency, participation, accountability, rule of law and human rights.

