

**CLIMATE CHANGE AND HUNGER:
TOWARDS A WFP POLICY ON CLIMATE CHANGE**



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EXECUTIVE SUMMARY

“Every United Nations agency, fund and programme is committed. We are determined to be a part of the answer to climate change.”

United Nations Secretary-General Ban Ki-moon, 2007¹

Climate change is a hunger risk multiplier, threatening to undermine hard-won gains in eradicating hunger and poverty. According to recent data and studies, the impact of climate change on hunger and undernutrition presents a real threat to the poorest and most vulnerable people.

In 2007, the Secretary-General named climate change as one of three United Nations priorities and the defining challenge of our time, and appealed to all United Nations agencies to address climate change issues within their mandates. The Economic and Social Council of the United Nations adopted the 2007 resolution that the United Nations and Member States should “support adaptation to the effects of climate change and strengthen disaster risk reduction and early warning systems in order to minimize the humanitarian consequences of natural disasters, including the impact of climate change.” At the 2009 World Summit on Food Security, the Secretary-General referred to the deep interconnections of climate change with food security and hunger.

WFP is engaged in broad consultations and collaboration with partners and is developing its policy and strategic approach gradually to ensure the appropriateness, efficiency and sustainability of WFP’s contribution to the response to climate change.

This note informs the Board about how WFP can contribute to supporting governments and communities in their efforts to achieve food security in the face of climate change. WFP has comparative advantages through its experience in food security interventions that can support adaptation and disaster risk reduction. WFP relies on important partnerships to address the multidimensional challenge of climate change.

WFP is already in a strong position to develop a coherent response to climate change risks related to hunger and undernutrition. The challenge ahead is to consolidate capacities and mainstream climate change further into WFP’s strategic and programming frameworks.

¹ United Nations Secretary-General’s Speech at the United Nations Framework Convention on Climate Change (UNFCCC) Conference in Bali 2007:
www.un.org/apps/news/infocus/sgspeeches/statments_full.asp?statID=161.

INTRODUCTION

1. Negotiations for a global climate change agreement have been slow, reflecting the complexity of the factors and forces involved and the many questions on policy responses, responsibilities and resources that remain unanswered.
2. There is growing evidence that climate change will significantly increase the risk of food insecurity and undernutrition, undermining gains in cutting extreme poverty and hunger rates, the first Millennium Development Goal (MDG 1). The Intergovernmental Panel on Climate Change (IPCC) report concludes that hunger and malnutrition linked to extreme climatic events may be among the most important consequences of climate change.²
3. The impact of climate change poses tremendous humanitarian and developmental challenges and has implications for WFP as a frontline United Nations agency in the fight against hunger.³ Echoing the Secretary-General's call for all United Nations agencies to address climate change, in 2007 the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD) and WFP pledged to give their continued support to countries "to ensure that the impacts of climate change do not exacerbate hunger and poverty".⁴
4. This document outlines how WFP has addressed the impact of climate change on hunger so far, and how it plans to address it in the future.

CLIMATE CHANGE IMPACTS ON HUNGER

5. According to the IPCC, the vulnerability to climate change of individuals, societies or institutions depends on three key factors: their exposure to hazardous climate change impacts; their dependency on climate-sensitive resources; and their adaptive capacity.⁵
6. The world's hungry poor, especially women and children, are particularly vulnerable to climate change because they: i) live in marginal environments in countries that are prone to weather and climate-related disasters, exposing them to climate change impacts; ii) rely on small-scale rainfed farming systems and agricultural labour as their major sources of food and income, making them highly dependent on climate-sensitive natural resources; and iii) lack the assets that would enable them to cope with climate-related crises and adapt to climate change.
7. The IPCC highlights a set of concurrent climate-related factors that will have an impact on food security, including: i) declining agricultural productivity; ii) more frequent, erratic and intense climate- and weather-related events; iii) accelerated land degradation;

² Confalonieri, U. & Menne, B. 2007. Human Health. In M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden & C.E.Hanson, eds. *Climate Change 2007: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK, Cambridge University Press.

³ Papers by members of the Inter-Agency Standing Committee's (IASC's) Informal Task Force on Climate Change detail the humanitarian implications of climate change: www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-news-newsdetails&newsid=134.

⁴ FAO Director-General's speech at the UNFCCC Conference in Bali 2007: www.fao.org/newsroom/en/news/2007/1000731/index.html.

⁵ Parry, M.L., Canziani, O.F., Palutikof, J.P., van der Linden, P.J. & Hanson, C.E., eds. *Climate Change 2007: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK, Cambridge University Press.

iv) reduced water availability and deteriorating sanitation; v) increased conflicts over scarce resources; and vi) increased urbanization, migration and displacement.⁶

8. Climate change is expected to exacerbate hunger risks in many countries, especially in arid and semi-arid regions. Although there may be beneficial effects at some latitudes, agricultural production is expected to drop significantly in regions where it is already low, with direct repercussions on both food availability and access to food.⁷ The latest evidence suggests that the negative impacts of climate change are worse than was earlier predicted.
9. Declining agricultural production reduces employment and income, diminishing poor people's purchasing power and limiting their ability to invest in assets that increase their resilience. In combination with other factors, climate change is expected to increase price volatility and prices for the most common staple crops.⁸
10. Climate change is already affecting disaster trends. Nine out of ten natural disasters are climate-related; trends indicate less predictable, extreme climate events are becoming the norm.⁹ Every year, climate-related disasters affect more than 200 million people.¹⁰
11. The impact of climate change will not be uniformly distributed: it will exacerbate social inequalities and injustice, affecting vulnerable groups including indigenous people, women, children and the elderly. It has the potential to increase social unrest, upheavals and conflicts.¹¹
12. In the absence of effective safety nets and social protection systems, poor and hungry people and communities often resort to negative coping strategies and mechanisms, such as selling productive assets, overexploiting degraded lands and decreasing food intakes. Food-insecure communities face the dual challenge of eroding resilience and increasing shocks and stresses.
13. For the hundreds of millions of people who are already poor and food-insecure, climate change is a *hunger risk multiplier*⁸ with the potential to exacerbate existing vulnerabilities dramatically and prompt unprecedented humanitarian disasters.¹² The mid-term effect of climate change is an often invisible, yet profound, livelihood and food security crisis that

⁶ The IPCC findings were most recently confirmed in Beddington, J. 2011. *The Future of Food and Farming: Challenges and Choices for Global Sustainability*: www.bis.gov.uk/assets/bispartners/foresight/docs/food-and-farming/11-546-future-of-food-and-farming-report.pdf.

⁷ Parry et al., 2007. By 2020, in some developing countries yields from rainfed agriculture could be reduced by up to 50 percent.

⁸ Parry, M., Evans, A., Rosegrant, M. & Wheeler, T. 2009. *Climate Change and Hunger: Responding to the Challenge*. WFP, IFPRI, New York University Center on International Cooperation; Grantham Institute at Imperial College London; and Walker Institute at University of Reading. Available at http://www.ifpri.org/sites/default/files/publications/wfp_fightingchunger.pdf.

⁹ Sir John Holmes, Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, Opening Remarks at the Dubai International Humanitarian Aid and Development Conference and Exhibition, 8 April 2008: www.reliefweb.int/rw/rwb.nsf/db900sid/YSAR-7DHL88?OpenDocument.

¹⁰ Centre for Research on the Epidemiology of Disasters. 2011. *2010 Disasters in Numbers*: http://cred.be/publications?order=field_year_value&sort=desc.

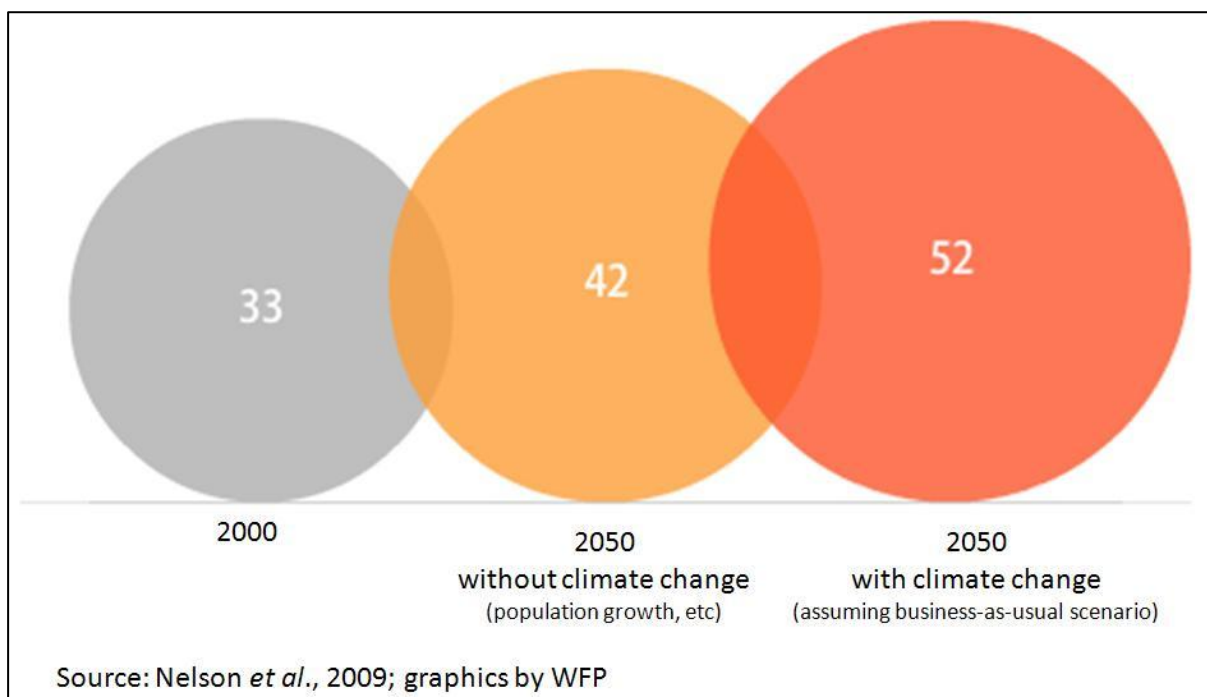
¹¹ United Nations Economic Commission for Africa. 2010. *Climate Change through the Lens of Vulnerability and Human Rights*. United Nations Regional Consultation Mechanism (RCM) Social and Human Development Cluster Meeting on Climate Change and Population, Health, Gender and Youth. Seventh African Development Forum (ADF VII) Pre-event Concept Note: www.uneca.org/adfvii/documents/PreADF/RCM-SHD-PreADFConceptNote.pdf.

¹² United States Agency for International Development, 2009. *Climate Change, Adaptation, and Conflict: A Preliminary Review of the Issues*. Washington, DC. Available at http://pdf.usaid.gov/pdf_docs/PNADR530.pdf.

affects the most vulnerable people. Recent crises, such as drought in the Horn of Africa and the Sahel and floods in Pakistan, are revealing what former United Nations Emergency Relief Coordinator John Holmes defined as the “new standard” in disaster history.¹³

14. The impact of climate change on hunger and undernutrition could be very severe: the International Food Policy Research Institute (IFPRI) estimates that the risk of hunger resulting from declines in production will increase by up to 20 percent by 2050. Calorie intake is likely to decline throughout the developing world, resulting in an additional 24 million undernourished children by 2050 – 21 percent more than today – almost half of whom will be living in sub-Saharan Africa¹⁴ (Figure 1).

Figure 1: Number of Malnourished Children in Sub-Saharan Africa (millions)



15. Food security has emerged as a priority concern in most of the countries that have developed National Adaptation Programmes of Action (NAPAs) or National Communication Plans. Of the total 44 NAPAs developed to date, 82 percent identify food security as a priority area of intervention.
16. Despite the urgency of the situation, sustained and large-scale food security adaptation initiatives are not moving at the required pace and intensity. This is owing to several factors, including limited capacities in developing countries and the challenges of ensuring effective financial flows in favour of the developing world.

¹³ Models suggest that by the 2020s, food production shortfalls resulting from drought are likely to become twice as frequent in many of the main crop growing areas, with significant implications for crop production and stability. United States Department of Agriculture. 2010. *World Agricultural Production Bulletin*, August 2010: www.fas.usda.gov/wap/circular/2010/10-08/productionfull08-10.pdf; Alcamo, J. *et al.* 2007. A New Assessment of Climate Change Impacts on Food Production Shortfalls and Water Availability in Russia. *Global Environmental Change – Human Policy Dimensions*, 17.

¹⁴ Nelson G.C. *et al.* 2009. *Climate Change Impact on Agriculture and Costs of Adaptation*. Washington, DC, IFPRI.

TOWARDS A WFP POLICY ON CLIMATE CHANGE

17. In 2007, the General Assembly held a thematic debate on Climate Change as a Global Challenge and requested the Secretary-General to prepare an overview of the United Nations system's work in relation to climate change.¹⁵
18. At the UNFCCC Conference in Bali in 2007, climate change was made one of the United Nations' three priorities: the Secretary-General termed it "the defining challenge of our age" and called on all United Nations agencies to engage in joint efforts on climate change.¹⁶
19. Welcoming the outcomes of the Bali conference, the United Nations Economic and Social Council (ECOSOC) adopted a resolution in 2007 encouraging the United Nations and Member States "to support adaptation to the effects of climate change and to strengthen disaster risk reduction and early warning systems in order to minimize the humanitarian consequences of natural disasters, including the impact of climate change."¹⁷
20. The Secretary-General's 2008 report to the General Assembly, in which WFP features prominently, reaffirmed the United Nations' commitment to gathering the "collective strength of all its entities as an integral part of the international community's response to climate change".¹⁸ In the same year, the General Assembly unanimously adopted a resolution on climate change and its possible security implications, inviting all United Nations bodies to address climate change issues within their mandates.¹⁹
21. The linkages between climate change and food security and hunger were discussed at the 2009 World Summit on Food Security, where the Secretary-General explained in his opening statement that the two dimensions were "deeply interconnected".²⁰
22. In 2009, WFP, IFAD and FAO issued the joint document "Directions for Collaboration among the Rome-Based Agencies", which identifies climate change as one of five focus areas for collaboration.²¹ The document states that "climate change, the food security crisis and the financial crisis have provided new impetus for enhancing collaboration to ensure food security [...] The Rome-based agencies [...] are uniquely poised at this critical juncture to scale up United Nations systems efforts to achieve the Millennium Development Goals."
23. In response to these calls and agreements, WFP is clarifying its policies for and approaches to climate change. It is drawing from its own experience and engaging in broad consultations and collaboration with partners, including governments, research and

¹⁵ www.un.org/ga/president/61/follow-up/thematicclimate.shtml.

¹⁶ United Nations Secretary-General's speech at the UNFCCC Conference in Bali 2007: www.un.org/apps/news/infocus/speeches/statments_full.asp?statID=161; United Nations System Chief Executives Board for Coordination. 2008. *Acting on Climate Change: The UN System Delivering As One*, prepared through the High-level Committee on Programmes: www.un.org/climatechange/pdfs/Acting%20on%20Climate%20Change.pdf.

¹⁷ ECOSOC Resolution 2008/36: www.un.org/en/ecosoc/docs/2008/resolution%202008-36.pdf.

¹⁸ United Nations Secretary-General. 2008. *Overview of United Nations Activities in Relation to Climate Change – Report of the Secretary-General*: www.un.org/ga/president/62/ThematicDebates/a-62-644.pdf.

¹⁹ A/RES/63/281 (available at <http://documents.un.org/default.asp>)

²⁰ United Nations Secretary-General's Speech at the World Summit on Food Security, 17 November 2009.

²¹ "Directions for Collaboration among the Rome-Based Agencies" (WFP/EB.2/2009/11-C).

specialized climate institutions, think-tanks, development banks, other United Nations agencies, regional entities and non-governmental organizations (NGOs).

24. Climate change is relatively new on the global policy agenda. With many issues under debate, WFP's policy and strategic approach are being developed gradually to ensure the appropriateness, efficiency and sustainability of WFP's contribution to the response to climate change.
25. Below are the main elements informing WFP's approach.

Policy Foundation and Linkages with Strategic Objectives

26. WFP's Strategic Plan (2008–2013) identifies climate change as a driver of the hunger challenge. It recognizes that in view of increasing disaster risks, WFP needs to “invest in disaster preparedness and mitigation measures” as part of its efforts to prevent acute hunger – Strategic Objective 2.
27. Strategic Objective 2 has two goals: to support and strengthen governments' capacities to prepare for, assess and respond to acute hunger arising from disasters; and to support and strengthen communities' resilience to shocks, through safety nets or asset creation, including adaptation to climate change.
28. Other Strategic Objectives also help to define WFP's engagement in climate change and disaster risk reduction (DRR): Strategic Objective 1 – Save lives and protect livelihoods in emergencies (most of which are climate-related); Strategic Objective 3 – Restore and rebuild lives and livelihoods in post-disaster situations; Strategic Objective 4 – Reduce chronic hunger and undernutrition (which is likely to be exacerbated by climate change); and Strategic Objective 5 – Strengthen the capacities of countries to reduce hunger (which is made more difficult by climate change).
29. The WFP Strategic Plan also incorporates overall guidance on DRR provided by the Hyogo Framework for Action (2005–2015), and lays the foundation for concerted, coherent support to governments' DRR and climate change adaptation (CCA) efforts. WFP's DRR policy, presented for the Board's consideration in 2009, was a first step towards defining WFP's role in responding to the growing risk of disasters, including those related to weather and climate.
30. A number of WFP policy documents have laid the foundations for developing a corporate approach to climate change. These include policy papers on enabling development (1999), disaster mitigation guidelines (2002), livelihoods in emergencies (2003), safety nets (2004), transition from relief to development (2004), disaster preparedness and mitigation (2007), DRR policy guidance framework (2008) and the DRR policy (under development).²²

Institutional Capacity and Comparative Advantages

31. Three priorities guide WFP's approach to climate change. First is the focus on the most vulnerable people. Climate change will hit the poorest and most vulnerable hardest, and these are the people WFP is mandated to assist: “people who, either permanently or during crisis periods, are unable to produce enough food or do not have the resources to otherwise obtain the food that they and their households require for active and healthy lives”.²³

²² A revised version of the DRR policy, incorporating references to climate change, will be presented to the Board at its 2011 Second Regular Session.

²³ WFP Mission Statement.

32. The second priority is the focus on access to food. Until recently, the human and social dimensions of climate change were only marginally addressed.²⁴ Similarly, the discourse on food security and climate change focused mainly on agricultural production and productivity, and less on the access and utilization dimensions of food security.²⁵
33. The third priority is working in partnership. Climate change poses a multidimensional challenge that requires integrated, multisectoral approaches. National governments are WFP's primary interlocutors in responding to climate change, and government ownership of WFP activities is more critical than ever in view of the long-term nature of climate change.
34. By incorporating the human and social dimensions of climate change into country-owned solutions to hunger, WFP contributes to the Rome-based agencies' complementary efforts in climate change and food security, in line with the twin-track approach to ending hunger.²¹ WFP's role in climate change is recognized and valued by governments and other stakeholders and has been embedded in numerous partnerships and Memoranda of Understanding (MOUs) with other United Nations agencies, including the United Nations Development Programme (UNDP), the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).
35. WFP is in a strong position to build a coherent response to climate change-related food security risks. Its comparative advantages, which can help support governments, include:
- strong food security assessment and analysis capacities, and sophisticated knowledge tools and services for anticipating weather-related shocks, assessing their impacts on food security and informing response actions;
 - significant capacities in emergency preparedness and response, contingency planning, early warning, disaster risk management and response;
 - extensive field presence, allowing it to reach those at greatest risk of climatic hazards;
 - a solid track record in food security interventions with multiple benefits, including in strengthening communities' resilience;
 - a strong role in the development of social protection systems and programmes that enable food-insecure communities to benefit from adaptation opportunities and protect those that cannot adapt;
 - a wide network of partners, and credibility with governments, which will be the main drivers and owners of CCA.

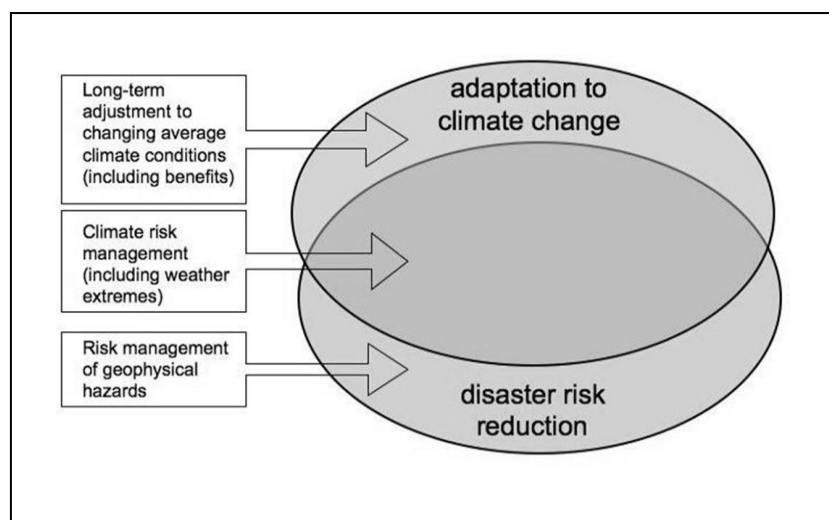
²⁴ Mearns, R. and Norton, A. 2010. Equity and Vulnerability in a Warming World: Introduction and Overview. In R. Mearns and A. Norton, eds. *Social Dimensions of Climate Change*. Washington, DC, World Bank; WFP, International Federation of Red Cross and Red Crescent Societies (IFRC) and OCHA. 2009. *Addressing the Humanitarian Challenges of Climate Change. Regional and National Perspectives*: www.humanitarianinfo.org/iasc/downloaddoc.aspx?docID=4862&type=any; Global Humanitarian Forum. 2009. *Human Impact Report: Climate Change – The Anatomy of A Silent Crisis*: www.eird.org/publicaciones/humanimpactreport.pdf.

²⁵ United Nations Standing Committee on Nutrition (SCN). 2010. *Climate Change and Nutrition Security – A Message to the UNFCCC Negotiators, Policy Brief*: www.unscn.org/files/Statements/Bdef_NutCC_2311_final.pdf.

Linkages with Disaster Risk Reduction

36. The linkage between DRR and the emerging notion of CCA is essential: both approaches aim to reduce the impacts of shock by anticipating risks and addressing vulnerabilities.
37. *CCA* is defined as an adjustment in natural or human systems in response to actual or expected climatic changes or their effects. It can reduce harm or exploit opportunities.²⁶ *DRR* seeks to reduce disaster risks through systematic efforts to analyse and manage the causal factors of disasters, based on reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.²⁷
38. As illustrated in Figure 2, the main overlap between DRR and CCA is the climate risk management dimension. Most climate change impacts will materialize through shifts in the frequency and intensity of extreme weather events, with direct implications for disaster risk. DRR and its focus on building resilience to existing climate variability is a useful entry point for adaptation policies and the first line of defence against climate change.²⁸

Figure 2: Overlap Between Climate Change Adaptation and Disaster Risk Reduction



Source: Mitchell and van Aalst, 2008.

39. There are two critical distinctions between DRR and CCA: DRR tackles the risks of geophysical hazards such as earthquakes, while adaptation does not; and CCA considers the long-term adjustment to changes in mean climatic condition, including the resilience

²⁶ IPCC. 2007. Climate change 2007. IPCC Fourth Assessment Report. Geneva: www.ipcc.ch.

²⁷ United Nations International Strategy for Disaster Reduction (ISDR). 2009. *Terminology on Disaster Risk Reduction*: www.unisdr.org/eng/terminology/UNISDR-Terminology-English.pdf.

²⁸ In September 2008, at a ministerial meeting on Reducing Disaster Risks in a Changing Climate, the United Nations Secretary-General called on ministers to “champion risk reduction as a core element of climate change adaptation” and urged them to “implement the policies and practices of DRR as a first-line defence in adapting to climate change.”: www.un.org/News/Press/docs/2008/sgsm11841.doc.htm.

building and development opportunities this can provide, while DRR addresses hazardous extremes.²⁹

40. Measures that fall under CCA and DRR – in the realm of climate risk management – include soil and water conservation, watershed restoration, reforestation, building settlements in safer zones, improving vulnerability and risk assessment, developing early warning systems, institutional capacity development, and *ex-ante* financing structures to pool risk, such as index-based weather insurance. They also include public safety nets for those affected by disasters, and social protection programmes to address the underlying drivers of vulnerability.³⁰
41. Recognizing the strong links between DRR and CCA, WFP amalgamated its climate change and DRR teams into a single Climate Change and Disaster Risk Reduction Office in 2009. This aligns WFP with the current trend among United Nations, NGO and donor partners.³¹
42. There is growing consensus that in view of climate change, where possible, humanitarian action should address the underlying causes of vulnerability before and during crises and should strengthen vulnerable communities' resilience to future shocks.³²
43. Many adaptation approaches that address the drivers of vulnerability to climate change overlap with the development agenda. Adaptation and development form a “necessarily integrated agenda”³² that, together with DRR, brings humanitarian and development actors closer together as they confront the climate change challenge.

CLIMATE CHANGE-RELATED ACTIVITIES TO DATE

44. As climate change is a multiplier of existing food security risks and vulnerability, the tools and approaches that build resilience to current risks and vulnerabilities provide valuable entry points for pro-poor CCA and DRR activities.
45. Many WFP programmes address immediate food security needs, while also reducing vulnerabilities to future shocks by protecting and building livelihood assets that enhance adaptive capacity and enable the transition into productive and resilient livelihoods. Although these programmes may not be explicitly designed to deliver climate-related outcomes, they can be tailored and scaled up to address climate-related risks to food security more effectively.
46. A wide range of WFP interventions already have a CCA and/or DRR dimension. An analysis of WFP's 2009 standardized project reports and project documents concluded that of 188 projects in execution in 2009, 85 – 45 percent – contained a climate change- and/or

²⁹ Mitchell, T. and van Aalst, M. 2008. *Convergence of Disaster Risk Reduction and Climate Change Adaptation. A Review for DFID*. London, Department for International Development (DFID).

³⁰ ISDR. 2008. *Climate Change and Disaster Risk Reduction, Briefing Note 1*; USAID. 2009. *USAID/OFDA Programs to Reduce Vulnerabilities to Climate and Weather-Induced Disasters, Fact Sheet No. 1*; Mearns and Norton. 2010; UNDP. 2007. *Human Development Report 2007/2008. Fighting Climate Change: Human Solidarity in a Divided World*. Available at http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf.

³¹ Oxfam. 2008. *Climate Change Adaptation and Disaster Risk Reduction. Frequently Asked Questions*. Available at <http://community.eldis.org/?233@@.59cdc973/8!enclosure=.59cf3b91&ad=1>; Tearfund. 2008. *Linking Climate Change Adaptation and Disaster Risk Reduction*. Available at www.tearfund.org/webdocs/Website/Campaigning/CCA_and_DRR_web.pdf.

³² Ministry of Foreign Affairs of Denmark. 2010. *Strategy for Danish Humanitarian Action 2010–2015. Addressing Vulnerability, Climate Change and Protection Challenges*. Copenhagen. The document

DRR-related activity. These projects were being implemented in more than 53 countries in all of the regions where WFP operates.

47. WFP's climate change- and DRR-related activities fall mainly under the following categories: 26 percent in agriculture support, including land conservation, terracing and agroforestry; 21 percent in water conservation, including irrigation, water harvesting and well rehabilitation; reforestation and afforestation; infrastructure, including public infrastructure and storage facilities; and capacity development, including in government and community-level risk reduction and preparedness.
48. WFP programmes can help food-insecure communities protect their lands from degradation or desertification. For example, the Managing Environmental Resources to Enable Transition to More Sustainable Livelihoods project in Ethiopia is a well-documented standard-setting experience in land rehabilitation and resilience building. Similar initiatives are under way in Mauritania, Mali, Uganda, Senegal, Niger, Rwanda, Kenya, Sri Lanka and other countries. In Niger, WFP's food-for-work (FFW) interventions have contributed to nearly 5 million ha of reforested farmland.³³
49. In Uganda, WFP is considered a strong player in the climate change area and now leads United Nations country team (UNCT) efforts in climate change, supporting the government in establishing capacities and developing CCA and DRR plans and programmes under a Delivering as One initiative. In Zambia, WFP is leading UNCT work on DRR.
50. WFP is promoting the use of fuel-efficient stoves in some of the world's most difficult and environmentally degraded places, including Darfur and Haiti.³⁴ While the main objective is to reduce women's exposure to violence by reducing the need for fuelwood collection by up to 50 percent, the initiative also helps to reduce deforestation and land degradation. It therefore contributes to climate change mitigation and addresses major drivers of vulnerability to climate hazards.
51. In Bangladesh, WFP is helping to strengthen national early warning systems and enhance disaster management capacities. Since 2000, WFP-supported FFW and food-for-training activities focusing on DRR have raised 30,000 homesteads above flood levels and trained 1.6 million women in disaster preparedness.
52. WFP developed an innovative regional disaster early warning platform for Central America, (SATCA, *Sistema de Alerta Temprana para Centro América*), which serves the humanitarian community and national civil protection systems.
53. WFP is engaging in a range of innovative risk management initiatives aimed at building resilience to climate-related disasters. The Livelihoods, Early Assessment and Protection project, supported by the World Bank and others, is helping the Government of Ethiopia to develop a comprehensive national weather risk management framework.
54. WFP is supporting the African Union in establishing a Pan-African Disaster Risk Pool for Food Security. This aims to provide contingency funding to participating states in the event of severe droughts and other weather- and climate-related shocks.

³³ Reij, C. *et al.* 2009. *Agro-environmental Transformation in the Sahel: Another Kind of "Green Revolution"*. Washington, DC, IFPRI.

³⁴ Through the Safe Access to Firewood and Alternative Energy in Humanitarian Settings (SAFE) stoves initiative, WFP aims to reach up to 6 million refugees, internally displaced persons and returnees in 36 nations, with support from the governments of Denmark and Italy, and others.

55. WFP is already engaged in several initiatives to enhance and operationalize its corporate DRR, emergency preparedness and response capacities. These include the development of new guidance materials such as a new emergency preparedness and response package, refining tools such as multi-hazard risk mapping and early warning systems, engaging in the development of innovative risk transfer tools, ensuring rigorous programme design, and expanding collaboration with partner organizations that can help maximize WFP's interventions and efforts.
56. As part of efforts to consolidate experience and inform WFP's strategic thinking and emerging approach to climate change, experts, partners and stakeholders have been involved in a senior management workshop, an experts' seminar for WFP Board members in November 2009, and an experts' report on climate change and hunger.⁸
57. WFP commissioned an independent review of its activities related to climate change and food security.³⁵ The report states, "[M]uch of what WFP does today is [...] related to tackling climate change, especially in terms of supporting communities to adapt, increasing the resilience of their livelihoods through food security, and helping governments to develop capacities and frameworks to support adaptation and mitigation [...] WFP's core activities can provide a platform for resilience building as a central objective of the Organization, and there is a great opportunity to think more strategically about climate-related outcomes and co-benefits that WFP can deliver."
58. Building on consultations and meetings, the report identified entry points for refining WFP's approach to the climate change challenge in line with nationally owned climate-related plans and programmes:
- responding to climate-related hunger crises and disasters;
 - DRR and emergency preparedness;
 - community-based adaptation;
 - social protection and safety nets;
 - mitigation; and
 - advocacy and public policy.

THE SIGNIFICANCE OF PARTNERSHIPS

59. The multidimensional challenges of climate change require integrated, nationally owned solutions. WFP is strengthening its collaboration and coordination with national governments, regional actors and technical bodies.
60. Strategic, technical and operational collaboration among the Rome-based agencies is being enhanced. Coordinated approaches are being developed for UNFCCC processes, joint advocacy work, and technical discussions and policy exchange on climate change, food security, hunger and malnutrition initiatives. WFP and IFAD are collaborating on DRR through the joint Weather Risk Management Facility.
61. Strategic agreements and MOUs that include climate change are being prepared with UNEP and have been signed with WMO and UNDP. The MOU with UNEP focuses on work at the intersection between food security and environmental vulnerability.

³⁵ Urquhart, P. 2010. *WFP and Climate Change: A Review of On-going Experience and Recommendations for Action*. Rome, WFP. IFAD has carried out a similar review.

Collaboration with WMO aims to enhance the sharing and use of climate-related knowledge to support the nascent Global Framework for Climate Services.

62. Collaboration with UNDP focuses on developing CCA and DRR projects in high-risk countries, including through the Global Environment Facility (GEF), and on post-disaster needs assessment. The two organizations are already collaborating on the Japan-funded Africa Adaptation Programme in Kenya, Ethiopia and Malawi.³⁶
63. WFP is collaborating with the World Health Organization (WHO) and SCN to advocate on the nutritional impacts of climate change.³⁷ It has contributed significantly to the work of the IASC Task Force on Climate Change.³⁸
64. As a member of the United Nations Development Group (UNDG) Task Team on Climate Change and Environmental Sustainability, WFP has contributed to studies and to the development of the UNDG guidance note *Integrating Climate Change Considerations in the Country Analysis and the [United Nations Development Assistance Framework] UNDAF*.
65. Enhanced collaboration is being discussed with international and regional financial institutions. This includes discussions with the World Bank and its supported governments on scaling up social protection and sustainable land management to support pro-poor climate adaptation, including through transformational initiatives that follow examples from Ethiopia, Rwanda and China.³⁹ Consultations with the African Development Bank aim to develop joint initiatives that boost national and regional capacities to address climate change.
66. In 2010, WFP was accredited as a multilateral implementing entity of the Adaptation Fund, and supports several countries in their applications to the Fund. WFP could soon become an accredited agency of the GEF.
67. As part of its closer collaboration with scientific institutions, WFP recently became an observer to the IPCC and is collaborating with Columbia University's International Research Institute for Climate and Society to improve the use of climate information in food security and vulnerability analysis and mapping. A partnership for developing a global atlas on hunger and climate change has been created with the United Kingdom's Meteorological Office, a leading institution in climate impact analysis.
68. Collaboration with NGOs on climate-related issues will also become increasingly important at both the global and field levels, especially on innovative community-based approaches. With support from the private sector, WFP and Oxfam America are partnering on the development of innovative CCA approaches that combine community-based DRR, cash for assets, risk transfer including insurance-for-work mechanisms, and livelihood-strengthening objectives.

³⁶ The programme supports CCA in 21 African countries: www.undp-adaptation.org/africaprogramme/.

³⁷ WFP contributed to the SCN policy document *Climate Change and Nutrition Security – A Message to the UNFCCC Negotiators* (2010): www.unscn.org/files/Statements/Bdef_NutCC_2311_final.pdf.

³⁸ WFP coordinated the drafting of a technical IASC paper on *Climate Change, Food Insecurity and Hunger – Key Messages for UNFCCC Negotiators* (2009).

³⁹ WFP's successful activities in China in the 1990s inspired the World Bank interventions in the Loess Plateau (personal communication from Juergen Voegelé, World Bank Director, Agriculture Division, December 2010).

WFP AND CLIMATE CHANGE: AN INITIAL AGENDA FOR ACTION

69. Climate change is a hunger risk multiplier affecting the lives and livelihoods of the most vulnerable and food-insecure people and communities. The follow-up actions WFP has identified to enable a more systematic approach to the emerging climate change challenge include:
70. **Developing a comprehensive framework for mainstreaming climate change:** To counteract climate change-related hunger and undernutrition, WFP needs a framework for mainstreaming climate change into its strategies, policies and operations. Corporate capacities in including climate impact analysis in the design and implementation of projects and programmes need to be strengthened to ensure sustainability and effectiveness under deteriorating climate conditions – “climate-proofing”.
71. **Contributing to a shared understanding of climate change’s impact on hunger and malnutrition:** Analytical tools for anticipating and assessing the impacts of climate on food security, hunger and malnutrition are still largely missing. Working with partners and building on its comparative advantages, WFP can help enhance the shared knowledge on these impacts to guide policy action at the national and global levels.
72. **Enhancing WFP’s DRR and emergency preparedness and response capacities:** In preparation for an increasing disaster load, among other related actions, WFP needs to refine its systems and services for enhancing the capacities of governments and regional actors to anticipate climate hazards and manage food security risks.
73. **Enhancing resilience building outcomes for vulnerable people:** Climate change makes disaster prevention essential and demands a shift towards more sustainable development pathways. This implies even greater needs and opportunities for WFP to design interventions that build resilience and protect development and food security gains from climate change impacts by, for example, maximizing WFP’s impact in relief, recovery and transition to development, and identifying successful adaptation models and approaches for scaling up.
74. **Supporting the establishment of national social protection and safety net systems:** WFP can play a role in enhancing the capacity of nationally owned food security and nutrition-related safety nets that help “vulnerable households become less exposed, less sensitive and more adaptive to a range of shocks”.⁴⁰ In view of recurrent disasters, there is also growing demand for more predictable, long-term safety nets that take into account climate risks.⁴¹
75. **Delivering environmental outcomes for vulnerable communities:** Climate change highlights the interlinkages among food security, livelihoods, resource scarcity and environmental issues. Many WFP activities addressing hunger and undernutrition also support community-level natural resource management and environmental protection

⁴⁰ Beddington, J. 2011. *The Future of Food and Farming: Challenges and Choices for Global Sustainability*: www.bis.gov.uk/assets/bispartners/foresight/docs/food-and-farming/11-546-future-of-food-and-farming-report.pdf. Consultations are already under way with the Institute of Development Studies (IDS) and other partners: www.ids.ac.uk/go/news/adaptive-social-protection-in-the-context-of-agriculture-and-food-security.

⁴¹ Davies, M., Guenther, B., Leavy, J., Mitchell, T. and Tanner, T. 2008. Adaptive Social Protection: Synergies for Poverty Reduction. *IDS Bulletin*, 39(4): 105–112; UNDP. 2007. *Human Development Report 2007/2008. Fighting Climate Change: Human Solidarity in a Divided World*. Available at http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf.

activities. Working with partners, WFP can systematically deliver food security-related environmental outcomes with potentially significant mitigation co-benefits.

CONCLUSION

76. Building on its comparative advantages, WFP can make an important contribution to global and local efforts aimed at helping vulnerable countries and communities address climate-related hunger and malnutrition. WFP can effectively, proactively and systematically support efforts to protect and sustain the food security and livelihoods of vulnerable people who find themselves at the intersection of hunger, poverty and emerging climate-related risks.
77. The challenges ahead are to mainstream climate change further into WFP's strategic and programming frameworks, consolidate partnerships and collaboration with governments, communities and other actors, and scale up successful interventions that contribute to ensuring long-term food security.

ACRONYMS USED IN THIS DOCUMENT

CCA	climate change adaptation
DRR	disaster risk reduction
ECOSOC	Economic and Social Council of the United Nations
FAO	Food and Agriculture Organization of the United Nations
FFW	food for work
GEF	Global Environment Facility
IASC	Inter-Agency Standing Committee
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IPCC	Intergovernmental Panel on Climate Change
ISDR	International Strategy for Disaster Reduction
MDG	Millennium Development Goal
MOU	memorandum of understanding
NAPA	National Adaptation Programme of Action
NGO	non-governmental organization
SCN	Standing Committee on Nutrition
UNCT	United Nations Country Team
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
WMO	World Meteorological Organization