Ecosystems for water and food security

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Ecosystems for water and food security

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PREFACE

Overcoming hunger and meeting the nutritional needs of almost 7 billion people, rising to over 9 billion people by 2050, is a central challenge for this generation. Equally critical will be to achieve this in a way that keeps humanity's footprint within planetary boundaries.

Water scarcity is self-evidently one of the key factors that will limit food production. This is especially the case in South Asia and sub-Saharan Africa, where malnutrition and food insecurity are already widespread. In these areas, the livelihoods and well-being of poor communities are critically dependent on their farm produce and the ecosystem services from the local landscape that support their livelihoods and income.

This background document and synthesis on *An Ecosystem Services Approach to Water and Food Security* is part of UNEP's contribution to the global food crisis, pledged to the United Nations Secretary-General and developed in collaboration with the International Water Management Institute (IWMI) and other partners. Together, we identified and explored the links between ecosystems, water and food, and illustrate how resilient ecosystems can support and increase food security.

It is clear that enormous opportunities exist to increase food production in ways that make optimal and sustainable use of water and other resources. This means that we can feed a global population without massive and irreversible damage to our

also generate services such as flood mitigation, groundwater recharge, erosion control and habitats for plants, birds, fish and other animals.

It also requires intersectoral collaboration, because only then can policies and practices change. The overarching recommendation of this synthesis is that future sustainability requires an integrated approach to managing multipurpose agroecosystems in a landscape or river basin setting.

These ecosystems–whether they are wetlands or forests, arid pastoral lands or rice fields–represent the future of food security and resilience against shocks while offering a way towards achieving the Millennium Development Goals (MDGs) and beyond.

This document does not come in isolation. It is also a contribution to UNEP's wider work and partnerships on The Economics of Ecosystems and Biodiversity (TEEB) and a transition to a low-carbon, resource-efficient Green Economy.

Together they are all part of the urgency to evolve the sustainable development agenda forged in a previous century to reflect the new challenges and also the emerging opportunities of the 21st century.