

Executive Summary

This report outlines a broad strategy for green growth in the food and agriculture sector. It is part of the OECD's Green Growth Strategy that seeks to define an economic development path that is consistent with long-run environmental protection, using natural resources within their carrying capacity, while providing acceptable living standards and poverty reduction in all countries. The need for green growth arises because a “business as usual” path does not fully account for environmental limits and social concerns.

The key message from this report is that green growth is not only desirable and achievable, it is also essential if the food and nutrition requirements of future generations are to be met. This implies that productivity growth must be increased in a sustainable manner; well functioning markets must provide clear price signals that reflect the scarcity value of natural resources; and property rights must be defined so as to encourage optimal use of resources, both individually and collectively.

Green growth was identified as one of the priorities by Agriculture Ministers at their meeting at OECD in 2010. This green growth strategy for food and agriculture is the OECD's initial response to the Ministerial vision as expressed in their Communiqué:

Ministers recognised that green growth offers opportunities to contribute to sustainable economic, social and environmental development, that agriculture has an important role to play in the process, as do open markets that facilitate the sharing of technologies and innovations supportive of green growth, and that, in this context, care needs to be taken to avoid all forms of protectionism. Climate change presents challenges and opportunities for the agricultural sector in reducing greenhouse gas emissions, in carbon sequestration, and the need for adaptation.

This report aims to identify the challenges and opportunities that arise in the pursuit of a green growth path for the food and agriculture sector; the role of policies and management practices; and the indicators that could be used to track progress towards green growth.

A green-growth strategy for the food and agriculture sector, encompassing primary agriculture, fisheries, and both the upstream and downstream food supply chain, highlights priorities for attention by policy makers. Food is a necessity of life and food security is a basic interest in all countries. A green-growth strategy aims to ensure that enough food is provided, efficiently and sustainably, for a growing population. This means increasing output while managing scarce natural resources; reducing the carbon intensity and adverse environmental impacts throughout the food chain; enhancing the provision of environmental services such as carbon sequestration, flood and drought control; and conserving biodiversity.

The relationship between agriculture and green growth is complex. The food and agricultural sectors can generate both environmental harm and conserve environmental services. This is because the sector both depends on and impacts natural resources (land,

water, and biodiversity) in the production process. Moreover, resource endowments and environmental absorptive capacities vary widely across countries and regions, and impacts can differ in the short and long run and at different stages of production and consumption. Thus the context is critical.

The food and agricultural sector has been successful in providing for an increasing and wealthier global population. Productivity growth has been strong, and has exceeded the population growth rate. Innovation and good management practices have boosted crop yields and livestock productivity, aquaculture supplies an increasing share of total fish consumption and the real price of food has declined over the long term. Many farmers and fishers are aware of the importance of their economic dependence on conserving natural resources and ecosystems, and governments have started reorienting their policy priorities to take account of the environmental consequences of food and agriculture production and consumption. As a result, there have been some improvements in the environmental performance of food and agriculture.

Nevertheless, progress has been uneven. In some countries and regions productivity growth has been low, and growth has not been sustainable. There is growing pressure on and depletion of natural resources, including land, water, marine ecosystems, fish stocks, forests, and biodiversity – which are fundamental to sustainable production. These pressures have reached critical levels in some areas. Agriculture and fisheries are particularly vulnerable to climate change and will need to adapt to changing patterns of precipitation, temperature and extreme weather events. The over-arching policy challenge is to create the right incentives that would optimise resource use from an economic, environmental and social perspective.

Policies influence the productive efficiency and environmental performance of agriculture and fisheries. Their impacts on the environment vary according to the nature and the conditions under which policy instruments are implemented. Effective resource management programmes and environmental regulations can limit the negative environmental effect of policies. Caution is needed in making broad generalisations: not all government transfers (support) are harmful to growth and the environment; not all environmentally motivated subsidies are beneficial for the environment; and the absence of government support is no guarantee that the desired level of environmental performance will be achieved. In all cases, better targeting of policies to meet clearly identified objectives is needed.

The available scientific evidence suggests that business as usual will lead to a future in which economic growth will be constrained by natural resource limits, putting the security of food supplies at risk. Identifying good policies, overcoming impediments and embracing opportunities to implement policies that will move food and agriculture on to a green-growth pathway, and developing the means to measure progress are all important. A comprehensive and coherent strategy is needed:

- **To increase productivity in a sustainable manner:** Increasing resource use efficiency throughout the supply chain will not only ensure more production relative to inputs used, but also conserve scarce natural resources and deal with waste. *This means according higher priority to research, development, innovation, education and information applied to the agriculture and food sectors.*

- **To ensure that well-functioning markets provide the right signals:** Prices that reflect the scarcity value of natural resources as well as the positive and negative environmental impacts of the food and agriculture system will contribute to resource use efficiency. *This means reducing economically and environmentally harmful subsidies while encouraging environmentally friendly measures and consumer information; improving the functioning of markets, taking account of social consequences; further integrating domestic and global markets, bearing in mind the impacts of production trade on the environment and of environmental policies on production and trade; applying the polluter pays principle through charges and regulations; providing incentives for the supply of environmental goods and services; and reducing waste and post-harvest losses.*
- **To establish and enforce well defined property rights:** Property rights help ensure optimal resource use, in particular for marine resources, land and forests, greenhouse gas emissions, and air and water quality. When resources are essentially free to private participants it can encourage over-exploitation, resulting in environmentally and socially sub-optimal outcomes. *This is a complex area and is increasingly of a global rather than purely domestic nature, and requires further attention.*

Moving beyond this broad strategy is necessary if actionable advice is to be provided to governments. More concrete policy proposals that illustrate – without prescribing – how alternative policy sets can contribute to a greener growth model for food and agriculture will be the focus of upcoming work. In this context, particular attention will be paid – in collaboration with the FAO – to the specific circumstances of developing countries.

Ultimately, the objective would be to institute an ongoing process of policy monitoring and evaluation. Over time, this could become an approach to increase collective knowledge about how policies contribute to green growth. It would be a way for countries to measure their own progress and learn from the experience of others. Most importantly, it would be a step towards reframing growth to better manage natural assets and those environmental risks that would otherwise undermine economic growth and development.