

International Development Research Centre Centre de recherches pour le développement international

Regional Consultation on Climate Change for the 2019 Arab Forum on Sustainable Development and High-Level Political Forum

Climate Change Impact, Adaptive Capacity and Response Measures for Enhanced Resilience

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Canada



Enhancing Resilience

Anticipating the adverse effects

of climate change

Taking appropriate actions to prevent or minimize the damage they can cause



Anticipating the adverse effects of climate change

- □ A comprehensive understanding of the impacts of climate change on key sectors (water, agriculture, environment, health, etc.) is essential to developing informed adaptation responses to climate change.
- □ Encourage efforts to upgrade work on longer-term climate projections.

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Farming System	Exposure: What climate change-related events will occur	Sensitivity: Likely impact on farming systems
Irrigated	 Increased temperatures Reduced supply of surface irrigation water Dwindling of groundwater recharge 	 More water stress Increased demand for irrigation & water transfer Reduced yields when temperatures are too high Salinization due to reduced leaching
Highland mixed	 Increase in aridity Greater risk of drought Possible lengthening of the growing period Reduced supply of irrigation water 	 Reduction in cropping intensity Reduction in yields Reduction in cropping intensity Increased demand for irrigation
Rain-fed mixed	 Increase in aridity Greater risk of drought Reduced supply of irrigation water 	 A system very vulnerable to declining rainfall Some lands may revert to rangeland Increased demand for irrigation
Pastoral	 Increase in aridity Greater risk of drought Reduced water for livestock and fodder 	 A very vulnerable system, where desertification may reduce carrying capacity significantly Non-farm activities, exit from farming, migration
Figure 1: Climate change impact on farming systems of the Arab Region		

Source: World Bank, 2013



□ With modernization and urbanization, agriculture's share of the region's fast expanding economies has been declining, but the sector is still growing in absolute terms. It remains key to primary production and is the mainstay of the rural economy.

Overall, agriculture contributes 13 per cent to regional GDP, and considerably more in some countries.

Agriculture share in GDP:

- >20 per cent: Sudan, Syria
- >10 per cent: Egypt, Mauretania, Morocco
- >5 per cent: Algeria, Iraq, Tunisia, Yemen

Employment in agriculture

Algeria: 11% Egypt: 28% Iraq: 23% Morocco: 39%





Governments of the region should develop strategies for adapting to climate change.

Because aridity will increase and water is the binding constraint to agriculture in the region, they should evaluate trade-offs between supporting climate change responses in agriculture and preparing parts of the rural economy for transition away from agriculture including offfarm income.

Source: Arab Horizon 2030: Prospects for Enhancing Food Security in the Arab Region (2017)



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