RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security

CGIAR CCAFS

Info Note

Agriculture's prominence in the INDCs

Analysis of agriculture in countries' climate change mitigation and adaptation strategies

Meryl Richards, Lucy Gregersen, Victoria Kuntze, Simone Madsen, Mads Oldvig, Bruce Campbell, Ioannis Vasileiou

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Key messages

- Most Parties to the UNFCCC include agriculture in their mitigation targets (80%) and adaptation strategies (64%).
- Non-annex 1 Parties note the need for international financial support to implement their INDCs and raise the ambition of their contributions.
- For countries to meet their targets, climate finance will need to address agriculture.

As of 15 November 2015, 133 Intended Nationally Determined Contributions (INDCs) have been submitted, reflecting the contributions of 160 Parties to the UN Framework Convention on Climate Change (UNFCCC). Collectively, these Parties account for nearly 90 percent of global emissions. While the commitments vary, agriculture appears in a majority of the submissions.

Agriculture in mitigation contributions

All 160 Parties include mitigation in their INDCs, and 103 communicate greenhouse gas (GHG) targets that include the agriculture sector (Figure 1). Of these 103 Parties, 87 plan to implement agriculture-related GHG targets with domestic resources (i.e., an unconditional contribution). Forty-eight include targets that are conditional upon international financial support; some of these include both unconditional and conditional targets. An additional 7 Parties communicate non-GHG targets or actions in the agriculture sector. Bangladesh, for example, did not include agriculture in its GHG target, but did communicate several "conditional, possible, action-based contributions" from agriculture, such as extending alternate wetting and drying to 20% of irrigated rice areas, thus reducing methane emissions.

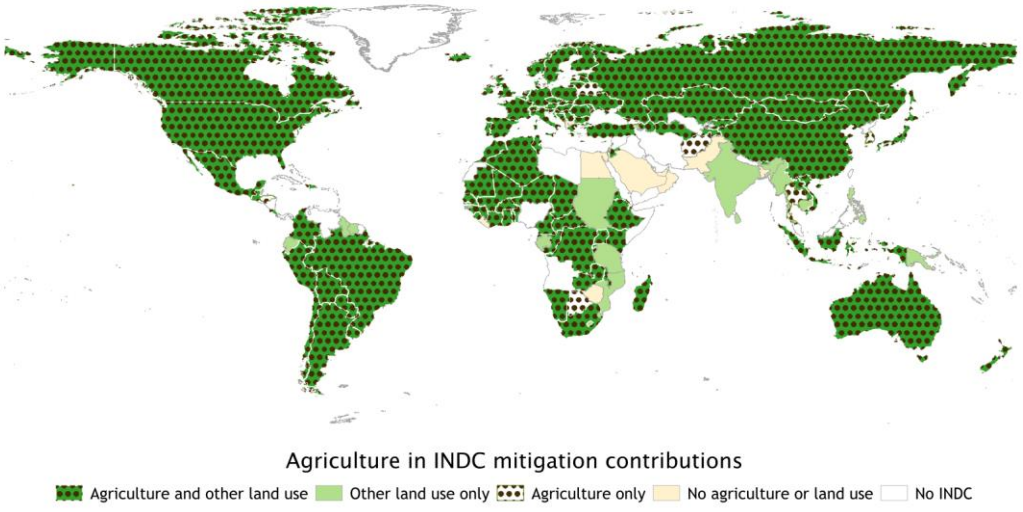

Figure 1 *Agriculture and other land use in INDC mitigation targets and actions*

Most Parties (128) include targets or actions related to forestry, other land use, and land use change.[i] For the Parties that exclude mitigation from forestry or land use change, several note that a lack of accounting methods for these emissions and removals played a role in their exclusion.

Several Parties, most in sub-Saharan Africa, included sectoral mitigation targets for the agriculture sector, or quantified the potential reductions from their mitigation actions. These contributions ranged from 5 GgCO2e /yr (Côte d'Ivoire) to 90 000 GgCO2e/yr (Ethiopia), or 6.8% to nearly 50% of emissions, generally calculated against business-as-usual emissions in 2030.

Most Non-Annex 1 Parties indicate the need for climate finance to achieve their targets. Several Parties—primarily in Africa—provided costs associated with their agricultural and land use mitigation measures (Figure 2). The costs range from smaller amounts for specific projects—such as USD 2.5 million for a program to reduce slash-and-burn agriculture in the Central African Republic—to larger quantities for entire sectoral mitigation plans, such as Senegal's USD 1.8 billion plan to implement sustainable intensification of rice, biodigesters, agroforestry systems, and assisted natural regeneration of degraded lands.

Some of these costs may be met domestically, but in most cases the Parties indicate need for international finance, or the possibility of more ambitious actions with such assistance. Many Parties note capacity and technology transfer needs specific to agriculture as well, particularly around data collection and monitoring, reporting and verification (MRV).

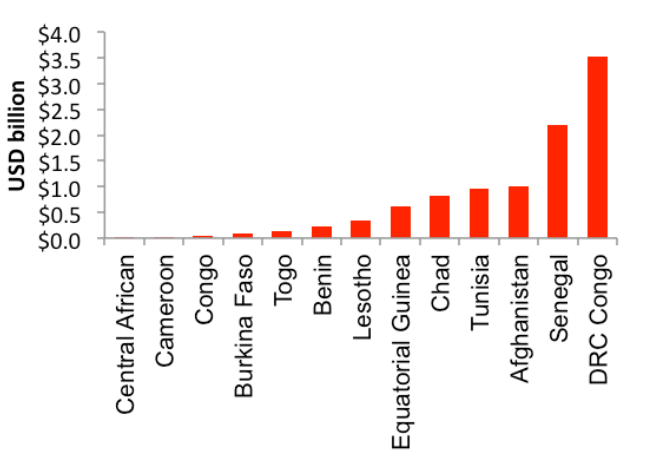

Figure 2 *Cost of mitigation measures in the agriculture sector reported in INDCs. Costs are generally for a 10-15 year period (e.g. 2015-2030), though countries do not always specify the time frame.*

Agriculture in adaptation components

Of the 113 Parties that include adaptation in their INDCs, 102 include agriculture among their adaptation priorities (Figure 3). While this is a considerable majority, many Parties do not provide details about agricultural adaptation. Countries will need to move to the next stage of identifying specific adaptation strategies as they further develop and implement their INDCs. This may include the need for technical assistance.

There is also an awareness of the strong linkages between mitigation and adaptation in some Parties' INDCs, especially in the agriculture and land use sectors. Forty-four Parties noted mitigation co-benefits of adaptation actions or vice versa. A few Parties, such as Bolivia, did not separate mitigation and adaptation, instead including actions and strategies that contributed to both goals.

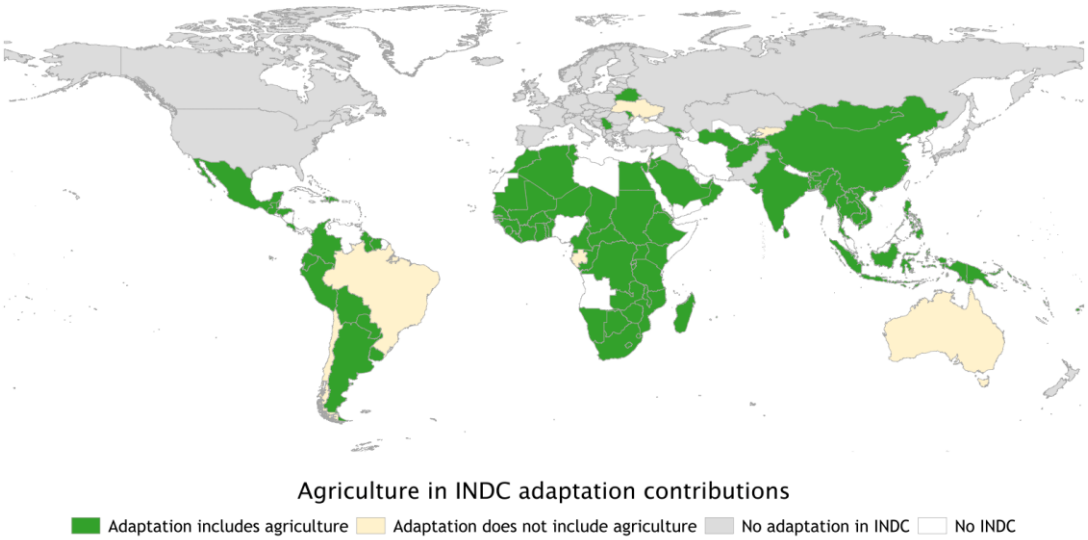

Figure 3 *Agriculture in INDC adaptation priorities and strategies*

In their INDCs, Parties, particularly non-Annex 1 Parties, note that their mitigation and adaptation contributions must help meet development and social justice goals as well. About half of the Parties (51%) discuss poverty alleviation, social inequality or marginalized populations and 46% deal with food security. More than one-third 36%) of Parties refer to gender equality as an important goal of climate change action and policy.

Conclusions and policy implications

Based on the INDCs submitted by 15 November 2015, agriculture and land use appear to be key strategies for climate change mitigation and adaptation in a majority of countries. Agriculture is particularly important in the contributions of non-Annex 1 countries, which are counting on international assistance to meet their targets. To help these Parties meet their targets, climate finance will need to include agriculture as a key sector for support, and work with countries to develop the capacities, such as better data collection and MRV systems, that are needed to access climate funds.

The information presented here is the result of a preliminary analysis of the 133 INDCs submitted as of 15 November 2015. Data were collected directly from INDC submissions, which can be found at: http://unfccc.int/focus/indc_portal/items/8766.php

More detailed analyses of the mitigation and adaptation actions are forthcoming. Visit www.ccafs.cgiar.org for updates.

Meryl Richards *(meryl.richards@uvm.edu) is the science officer for CCAFS research on Low Emissions Development, based at the Gund Institute of Ecological Economics at the University of Vermont.*

Lucy E. Gregersen *and* ***Victoria Kuntze*** *are Masters of Science students in Geography and Geoinformatics at University of Copenhagen.*

Simone T.N. Madsen *and* ***Mads B. Oldvig*** *are Masters of Science students in Climate Change at University of Copenhagen.*

Bruce M. Campbell *is Director of CCAFS. He is based at the International Center for Tropical Agriculture (CIAT) and Plant and Environmental Sciences at the University of Copenhagen.*

Ioannis Vasileiou *is science officer for CCAFS' Policies and Institutions flagship, currently seconded to the World Bank.*

[i] INDCs that referenced "LULUCF," "land use," "forestry" or "AFOLU" were all included in this category. INDCs that referenced "AFOLU," "all IPCC source categories" or "economy-wide" reductions were also considered as including both agriculture and LULUCF. Most INDC submissions distinguished between "agriculture" (N_2O and CH_4 emissions from agriculture) and "LULUCF" (carbon emissions and removals associated with land use, land use change, and forestry).

Research led by