





Tackle climate change:

Recommendations for agricultural adaptation policies of tomorrow

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KEY MESSAGES

- 1 Policy Instruments: some promising tools for assessing climate policies
- 2 Sectoral policies for agricultural climate adaptation support innovative processes
- 3 Promoting efficient instruments which combine regulatory and incentive approaches
- 4 Strengthening the implementation of existing instruments instead of inventing new ones is crucial
 - 5 Internal jurisdictional decisions favour the assessment of adaptation policies on a global scale

ABSTRACT

Adaptation to climate change in agricultural systems has become a major challenge for policymakers at the international, national, and local scales. The enabling conditions for the governance and implementation of national plans are one of the key challenges of climate action, and they depend on the quality, speed, and drive response provided. However, some claims or actions need to be questioned to build better climate policies for tomorrow. This policy brief builds on 11 empirical fieldwork surveys to understand the enabling conditions for the successful implementation of public policy mechanisms promoting climate transition in the global North and South. The evaluation of these instruments highlighted five key messages.

INTRODUCTION

The scientific literature and public debate are repeatedly calling for urgent decisions and actions to tackle climate change. National climate strategies and plans have thus emerged since the 1990s, after the agenda setting of climate change at the international level. From this national-level perspective, the transition might seem to be underway. However, from the viewpoint of the concrete implementation of public policy instruments at the subnational level,

the situation is more pessimistic: poor governance, budget restrictions... and many other factors calling to reconsider the actual patterns.

The main literature shows an inflation of plans, programmes, and instruments from the top (national and international level), and emphasises cross-sectoral plans, programmes, and objectives as the main vehicle for innovation. It also opposes the decline in regulatory public policy instruments —considered rather ineffective— to the potentially increasing benefit of flexible and voluntary governance instruments. Such a conclusion, however, does not necessarily apply to the agricultural sector, and can even steer policymaking in the wrong direction as evidence based on comparative research projects shows

This policy brief builds on work conducted through three research projects in 11 territories: South Africa, Senegal, Brazil's Northeast Region, Cauca Valley and Tolima (Colombia) Catalonia (Spain), California (USA), Occitanie (France) and three French overseas territories (Guadeloupe, La Réunion and Martinique). Based on sound political expertise on climate adaptation policies, the results of these comparative analyses gave rise to five key messages presented as follows:

Policy instruments to promote Agricultural adaptation to climate change analyzed in 11 territories



KEY MESSAGE N°1

Policy instrument: some promising tools to assess climate policies

Plans to tackle climate change do not necessarily lead to effective implementation and can also dilute the limited means of local public action. Facing many institutional challenges, including multilevel governance and policy integration issues, climate plans can encounter considerable barriers to future policy implementation. Does the governance of instruments allow their efficient implementation in terms of dissemination of objectives, appropriation by targets, and concrete implementation of instruments on territories and/or cultivable plots? Are the responsibilities and processes transparent, identifiable/traceable? The performance of the policies partly depends on these variables, but standing at the plan level does not allow the identification of the concrete processes that lead to efficient implementation.

Even more, primary research in developed countries has shown that the effective implementation of local adaptation plans may be beyond the capacity of many local governments. This raises a fundamental concern about the means held by the different types of public authorities to achieve the objectives given in the plans, while the inflation of policy instruments often disperses the capacity for action and the means of the implementers.

This testifies to a clear need to pay attention to the smallest units of public action, that is, the policy instrument at the local level. By analysing its design and governance, this assessment makes it possible to identify accelerators and barriers to stakeholders' innovation and implementation capacity for climate transition policy instrument assessment to evaluate the effective implementation of climate plans and programmes. This consideration could accelerate the crucial need for climate change transition.

KEY MESSAGE N°2

Sectoral policies for agricultural climate adaptation support innovative processes

While the cross-sectoral approach in public policies is widely promoted, the agricultural sector is made up of exceptional features: sectoral implementation of policy instruments could also allow innovative processes.

The adaptive governance literature promotes the cross-sectoral approach, and a key to the success of climate policies is presented as the ability to link the traditional sectors of public intervention to deal with climate change. However, this insight does not consider the particular identity of the agricultural sector and its capacity to innovate in its own field.

The agricultural sector is characterised by 'exceptionalism', such as compartmentalised policy processes and specific policy instruments that reflect a specific state intervention. Some three-quarters of the existing policy instruments implemented in the studied countries are sectoral instruments, in the north as well as the south. The instruments and their objectives remain highly sectoral and attached to traditional agricultural policy objectives, such as food production, soil wealth, or water supply. However, this sectoral nature of the instruments, far from preventing the emergence of innovation, can be, in this particular field, a guarantee of efficiency.

Instrumental innovation in the studies relies heavily on this sectorization: the instruments are designed for and intended mainly for the agricultural sector. For instance, extension services or platforms for farmers are subject to innovative experimentation. Innovative and

socio-technical networks have emerged and provide individual support to farmers, contributing to the ongoing transformation of agricultural models in territories (Box 1 and 2).

Therefore, the exceptionalism of the agricultural sector could prove to be an asset for instrumental innovation in agricultural climate transition

Box 1. The Climate Smart Agriculture platform in Senegal which relies on the agricultural sector to promote CC at the territorial level

The C-CASA national platform is an initiative of the CCAFS* to support food security in West Africa. The national platform in Senegal is coordinated by the Directorate of Agriculture (Ministry of Agriculture). Its objective is to regularly bring together and coordinate national actors in the agricultural sector in order to ensure the integration of climate policy in agricultural policies and projects. To support this national platform, there are 33 departmental platforms that regularly bring together actors from the agricultural sector in focus groups with the aim of strengthening their capacities at the territorial level.

Box 2. The Environmental Quality Incentives Program in USA

The Environmental Quality Incentives Program (EQIP) was introduced in the Federal Farm Bill in 1996. This instrument is based on a 'carrot and stick' approach: carrot (voluntary grants for farmers) and stick (command and control approach, here environmental and climate conditionality). Its implementation is sectoral: the technicians of the Federal Natural Resources Conservation Service (NRCS) are the main stakeholders of the program implementation process at the county level, as they technically inform the farmer grant file. The EQIP program also allows networking of a range of public (university's extension services) and private (firms, association of growers) sectoral stakeholders who invent, experiment, and spread new 'climate smart' practices on farmland. The implementation governance of EQIP can be simultaneously sectoral, hierarchical, and adaptive.

KEY MESSAGE N° 3

Promoting efficient instruments which combine regulatory and incentive approaches

The main literature promotes the use of incentives and flexible instruments for adaptation policies and consequently rejects instruments of the command-and-control (i.e. stick) type. However, command and control instruments should not be excluded from policy design. This could limit the production of efficient climate adaptation instruments.

Policy instruments are widely hybridised by combining regulatory logic with incentives and communicative instruments. In this scheme, strict regulations rejoin the climate conditions of the implementation of incentives/subsidies: the application process to the grants and the contracts signed by farmers integrate a climate and technical restrictive conditionality list to be respected (**Box 3**).

In this context, it is important to rehabilitate regulatory instruments, combined with incentives and communication instruments. To be effective, innovative policy might combine these different types of sticks, carrots, and sermons instruments.

^{*} Research Program on Climate Change, Agriculture and Food Security (CCAFS)

Box 3. The European agri-environment-climate measures: a hybrid instrument between incentives and conditionalities

In the European Union, agri-environment-climate measures (AECMs) constitute a funding mechanism aimed at providing financial support to farmers. The objective is to motivate them to adopt more environmentally friendly practices in favour of climate change mitigation or adaptation. Consequently, AECMs are considered incentive instruments (carrot-type instruments). However, many strict regulations (compliance with technical practices, compliance with regulations concerning fauna and flora, etc.) enter through the window of technical conditionalities linked to the implementation of incentives/subsidies. In this way, AECMs are hybrid instruments which combine some flexible modes of regulation (subsidies) and regulatory dimensions.

KEY MESSAGE N° 4

Focus on the implementation of existing policy instruments

Priority cannot be the development of new policy frameworks or instruments, but must concentrate on improving the implementation of existing policy instruments. This will avoid a useless dispersion of goals and resources which does not necessarily lead to concrete changes in the farmer's enabling environment to strengthen their adaptation capacity. Research carried out in Colombia and Brazil highlights this point (**Box 4**).

Box 4. Comparing climate policy processes in Columbia and Brazil: reinforce existing policy instruments

In Colombia, climate policy processes focus on the creation of policy frameworks and guidelines and institutional innovations (such as regional climate platforms), but policy implementation is lagging. Indeed, climate policy documents have blossomed in the last decade. While these policy documents provide a clear set of objectives and orientations, the implementation of climate adaptation instruments to support changes in farmers' practices is still limited. Additionally, the implementation of climate policies is not coordinated with the implementation of core sectoral agricultural or post-conflict policies. In this representative case, focus should be placed on the implementation of existing instruments (allocating a significant budget, strengthening local institution capacities), or "climatizing" existing sectoral instruments, rather than developing new policy frameworks.

In contrast, Brazil developed a climate policy framework based on sectoral contributions. Studies in the semi-arid region of Brazil show that many policy instruments, from various policy fields, are already being effectively implemented to enhance the adaptation capacities of rural populations. These instruments, inherited from a long trajectory of policies to face drought, are not only earmarked for adaptation but also include a wider scope of instruments. They are implemented by different sectoral institutions, leading to coordination issues between actors that frame adaptation issues in different ways. However, the core instruments of adaptation policy included in climate policies need to benefit from complementary instruments from other sectors in order to be effective.

Evidence based on scientific research confirms the importance of on-the-ground implementation of coherent hybridised instruments to address climate adaptation issues in agriculture, and recognises the importance of existing local rural organisations' platforms (even if not yet connected with environmental coalition and administration in charge of climate policies) to implement multiple instruments designed at a higher level in a coherent way.

These examples illustrate the necessity of improving the implementation of existing policy instruments. In this way, it is essential to strengthen the means of concrete implementation of the sectoral instruments assessed as the most efficient, politically (governance, capacity to reach targets...), economically and, in terms of agricultural practices to tackle climate change, in the context of critical need.

KEY MESSAGE N° 5

Promote national 'jurisdictional adaptation' as an efficient assessment of climate adaptation at global level

Internal jurisdictional decisions favour the assessment of adaptation policies, including agricultural adaptation policies, on a global scale.

Such a continuum between the internal judicial systems and the control mechanism of the Paris Agreement, as well as between the 'micro' and the 'macro' in terms of adaptation to climate change, must be clearly highlighted, to promote access to judges and best-practice experience sharing. Indeed, since the adoption of the Paris Agreement, 'climate litigations' worldwide, including in the global South, have contributed to improve references to international climate law (including soft law, like IPCC reports), innovate standing for transnational litigations (see, for example, the pending case brought by a Peruvian farmer against a German multinational energy company, RWE), and develop a preventive approach of liability, both for national/local public entities and for transnational companies, again especially in the field of non-sustainable energy (see Shell case in the Netherlands, Total pending case in France) and from the point of view of especially affected persons (see Leghari case in Pakistan also claimed by a farmer impacted by the effects of climate change).

Climate litigation risks and/or opportunities interpreting the Paris Agreement in the sector of agriculture policies is a relevant issue for the growing transnational dialogue of judges (Box 5). This may ultimately influence decisions at the global level, notably regarding land use, especially from an island/vulnerable territory's perspective. Local jurisdictional decisions also inspire the climate adaptation governance framework at local and national levels from global climate regime practices. Therefore, it appears necessary to promote 'jurisdictional adaptation' at the global level.

Box 5. Jurisdictional adaptation benefits

- Encouraging parties to share, on a global scale, their internal jurisdictional decisions relating to the climate under the enhanced transparency framework (Article 13 AP).
- Using these court decisions as sources of information in the global periodic review (Article 14 AP).
- Promoting their circulation within the framework of the mechanism for facilitating the implementation and promoting compliance with commitments (Article 15 AP), in the NAZCA portal, and by other institutional arrangements supporting the adaptation and assessment of agricultural policies.

REFERENCES

Baker I., Peterson A. & Brown, G. et al. (2012). Local government response to the impacts of climate change: An evaluation of local climate adaptation plans. Landscape and Urban Planning, 107, 2.

Basche A., Tully K.E., Álvarez-Berríos N., Reyes J. et al. (2020). Evaluating the untapped potential of U.S. conservation investments to improve soil and environmental health. Frontiers in Sustainable Food Systems, 4.

Biesboek R. & Candel J.-L. (2019). Mechanisms for policy (dis)integration: Explaining food policy and climate change adaptation policy in the Netherlands. *Policy Sciences*, doi.org/10.1007/s11077-019-09354-2

Blundo-Canto G., Andrieu N., Soule-Adam N. *et al.* (2021). Scaling weather and climate services for agriculture in Senegal: Evaluating systemic but overlooked effects. *Climate Services*, 22.

Greer A. (2017). Post-exceptional politics in agriculture: An examination of the 2013 CAP reform. *Journal of European Public Policy*, 24, 11.

Hrabanski M. (2020). Science-driven climatization of agricultural issues? The controversies surrounding climate-smart agriculture. *Critique internationale*, 1.

Milhorance C., Sabourin, E. Chechi L. & Mendes P. (2021). The politics of climate change adaptation in Brazil: Framings and policy outcomes for the rural sector. *Environmental Politics*.

Milhorance C., Le Coq J.-F. & Sabourin, E. (2021). Dealing with cross-sectoral policy problems: An advocacy coalition approach to climate and water policy integration in Northeast Brazil. *Policy Sciences*.

Reimer, A., & Prokopy, L. (2014). One federal policy, four different policy contexts: An examination of agri-environmental policy implementation in the Midwestern United States. *Land Use Policy*, 38.

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