# **BACKGROUND NOTE**

# The challenges for research in implementation

esearch has played a decisive role as a warning device to put global environmental issues (climate, biodiversity) on the international agenda. After 2015, the issue is no longer one of raising the alarm, but to innovate, propose solutions, implement these solutions and evaluate their impact and effectiveness, as highlighted in the final declaration of the international scientific conference "Our Common Future Under Climate Change" (Paris, July 2015). In this perspective, what could be the new roles for research in support of the 2030 Agenda?

## 1. CONTEXT

Since the Brundtland report (1987) and the 1992 international conventions, the debates on sustainable development indicators have proliferated, as well as environmental accounting procedures, intended to implement commitments and to follow them. These experiences of the expansion of accountability beyond growth and of the monitoring indicators of environmental policies do not appear to have had a decisive influence on the decisions of public authorities and businesses. However, there are several new elements in the current period: the commitments are linked at every scale, from the global to the local, in a coherent framework between Sustainable Development Goals and climate action; and there has been an expansion of information and exchange networks, along with technological innovations such as the routine use of satellite observation, and the participatory and decentralised monitoring of environmental degradation.

The challenge for research is to identify its role and relevance in an agenda of implementation evaluation. The challenge, both methodological and political, will be to ensure that the monitoring systems are legitimated and used, more so than they are today, as a means to evaluate policies, their implementation, their capacity to transform and to meet objectives.

### 2. ISSUES/SOLUTIONS

How can we invent a "science of solutions" to follow the one of "raising the alarm"? It is essential that researchers participate in the design of monitoring and indicator systems, which do not treat the existing information and data as sufficient. In particular, it is necessary for research to be able to highlight what current policies represent for the future of climate, ecosystems and societies, and to assess their capacity to put us on unsustainable trajectories. Describing the state of the environment, proving its degradation, and identifying the causes are functions that must be conducted to enable policy development and evaluation. What new interdisciplinary approaches, what new roles for social and biotechnical sciences and what new relationships between science and expertise will be required for action that is necessarily more interpretative and political? How can we guarantee the legitimacy and credibility of science? How can we ensure that research is not only used to operate or disseminate solutions defined by others, but participates in framing problems and opens or "re-opens" the range of options under discus-

More generally, the relationship between research and politics requires renewal. For example, the "summaries for policy makers" adopted by international expert bodies such as the IPCC or the IPBES, show the limits faced by these intergovernmental scientific bodies: they pretend to be "policy relevant but not policy prescriptive" and therefore tend to produce assessments without evaluation, to make recommendations without specifying the recipients and to identify signs without drawing conclusions. To ensure the active participation of research in the monitoring of commitments and policymaking, how can we resolve the inevitable tension between the need for rigor, pluralist legitimacy and political relevance? What type of organisation should be supported to ensure a balance between North and South, between scientific knowledge and non-expert knowledge, to foster the participation of research in evaluation? There are already significant tensions in the acknowledgment of anthropogenic climate change and ecosystem degradation, and these tensions will become even more pressing when it comes to the assessment of solutions and actions involving national and local actors.

In this perspective, how can we use and integrate the "data revolution", the "crowdsourcing" and "sousveillance" which originated, notably, from the need to monitor the growing number of commitments from businesses and communities? Their value is that

1. These are initiatives that combine technological means of observation centralised by satellite, as well as the network architecture of individual actors to enable a more efficient and more evaluative targeting of policies, and to maintain or increase the pressure on actors involved in environmental policies.

they are focused on a specific environmental or social issue, they target few actors, they are decentralised and unequivocally linked to a commitment, and are thus simple and relatively efficient in terms of mobilisation and pressure. But how can we ensure that the mobilisation of citizens, users and social movements will be sufficient to feed these systems as they become increasingly called upon? How can we ensure that the legitimacy of the data and knowledge produced will not be challenged by those whose actions may be called into question by such information?

Going beyond the production of knowledge, the function of critical evaluation is likely to require the building of new coalitions of actors, which will be essential to bring the results of these assessments into policies and to build proposals for reform or radical changes in public or private strategies. What synergy of roles can be imagined between researchers, think tanks and social or environmental NGOs? What will be the role for national or international public evaluation agencies? How can we ensure that the necessary funds for independent assessments are obtained, given that the purpose of these mechanisms is to play an evaluative role for public authorities and private actors?

#### 3. OBJECTIVES OF THE SESSION/QUESTIONS

- What new arrangements between disciplines are needed to ensure the critical role of science in tracking and evaluating implementation?
- How can we ensure the legitimacy and credibility of science if it is likely to play an even more politicised and evaluative role?
- How can we organise the balance and pluralism between different sources of knowledge (expert vs. grassroots knowledge, research institutions from both developed and developing countries...)?
- What are the new opportunities for research drawn by technologies and participatory processes?
- What innovative coalitions are needed both to ensure this independent evaluative and critical function is funded and that it is mobilised in political debates at national or international scales?

#### REFERENCES

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This event has received financial support from the French government in the framework of the programme "Investissements d'avenir", managed by ANR (the French National Research Agency) under the reference ANR-10-LABX-01

