Agricultural biodiversity, knowledge systems and policy decisions: the case of farmers’ seeds

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Abstract

Since the Earth Summit (1992), there has been an epistemological shift in research on the diversity of living organisms: there has been a switch from the sphere of biology to the sphere of society and the political and human sciences. Managing agricultural diversity, which mainly concerns varietal creation methods, intellectual property rights over genetic resources and access to seeds, does not raise any new challenges but these latter aspects are highlighted due to ecological urgency. We shall show this through the history of maize hybrids. Indeed, there are two major options. In the first option, so-called productivist agriculture, the aim will be to try and modify the environment, to make it more uniform while, at the same time, introducing and marketing a new genotype with broad adaptability or specific adaptation, though in both cases the environment will be artificialized. The second alternative, defended by the champions of smallholder agriculture, consists in growing a range of varieties or varietiespopulations, which themselves have the ability to adapt, hence a potential for evolution and, thereby, adaptation. The second option is usually greatly preferred by human populations in phase with their environment, as is often the case in the agricultures of the South. In addition, the pluralist principle of the democratic system enables the emergence of all kinds of controversies and those concerning environmental issues are very present as our common way of life is implicated. Within the biology field, quarrels over genetic risk, symbolized by MGOs, are emblematic. It can be seen that these ecological debates are all mediated by science, which holds expert, codified, scientific and easily accessible knowledge. However, since article 8j (CDB, 1992) stating that property rights are applicable to the genetic resources and local knowledge possessed by human communities, there has been renewed interest in the tacit knowledge incorporated in our practices, know-how and collective memories, which are much more difficult to decipher. No player, whether individual or collective, scientific or not, has enough knowledge and legitimacy to solve an environmental problem, which is necessarily of a collective nature, whereas our collective process of policy decisions appears to be increasingly "technocratic", i.e. resulting from the aggregation of expert opinions. In such a context, some hybrid forums are emerging; they enable minorities to express their views, preferences and values and bring with them a new democratic form. These systems invent procedures for bringing knowledge out of isolation and they trigger collective learning processes. We shall attempt to understand the relation existing between the knowledge and policy decision systems, notably by structuring the functioning of delegation systems, which may generate more or less reasonable positions, depending on their configuration. Based on the results of an interdisciplinary workshop to be held in October 2013 under the NSS-Dialogues association, we shall focus ourselves, as scientists, on the issue of scientific mediation and its status in policy decisions.

Speaker
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