Intergenerational Justice and Innovation for Long-Term Agricultural Sustainability

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ABSTRACT ORIGINAL

Innovation in agriculture brings about a number of positive and negative externalities. In this chapter I will focus on one particular externality, which is how innovation affects the consumption of non-renewable or slowly renewable resources that are essential for securing the human right to food in the future. The reproduction and massive use of some of these innovations require the right to destroy the effectiveness of resources that were not created by the inventor nor those buying the inventions. The use of pesticides leads to a loss of their effectiveness due to biological resistance, leading to the destruction of the resource (i.e. of its effectiveness) and genetic pollution (i.e. an increase in resistant biological organisms). Similarly, the use of high-yield crop varieties leads to the loss of soil fertility. While the destruction of these resources is inevitable when using these inventions, there are a number of measures that can be taken to prolong the active life of these resources. Users of these resources can comply with strict usage regulations and exclusive rights holders can assert substantial pressure to make sure users generally comply with such policies.