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**The Allocative Potential of Property Rights to Plant Genetic
Resources for Food and Agriculture (PGRFA)**

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Abstract

The provision of property rights to genetic resources is called by economists in view of allocative efficiency, e.g. by SWANSON and GÖSCHL (2000), who diagnose a property rights failure to be the reason for the continued loss of plant genetic resources for food and agriculture (PGRFA).

No specific legal property right to PGRFA exists to date. This contribution examines how a legal right to PGRFA would have to look like in order to substantially affect allocation. It is assumed that the right would have to preclude others from the economically most valuable aspects/uses of the genetic information. Typical uses made of PGRFA are analysed, and five classes of use are identified. Existing property rights (e.g. the patent system and the system of plant breeders rights) are investigated for their potential to grant exclusivity to PGRFA and to the specific uses as identified above, respectively. Additional adjustments that could enhance the efficiency of the discussed property rights systems are outlined (e.g., the repeal of ‘breeders exemption clauses’ in the existing PR system).

It is concluded here that rather than with a property rights failure, we deal with a ‘physical properties failure’, i.e. with a good — PGRFA — the typical uses of which are extremely difficult/expensive to monitor and control even after the introduction of an intellectual property right specifically designed to protect these uses. Other economic properties of PGRFA specified in the paper also contribute to the putative low effectiveness of such an IPR. Additional adjustments that could enhance the efficiency of existing property rights systems are found to most likely have severe negative side-effects, e.g. would impede the flow of genetic resources that are broadly accessible today. An overall conclusion is drawn that a socially desirable allocation of PGRFA via the markets is unachievable even after institutional adjustments. Given the inherent public good character of the genetic information embodied in PGRFA, investment in the conservation and continued supply of PGRFA will remain a major public responsibility.

Keywords: Economics of property rights, genetic resources, intellectual property rights, plant breeding