

Climate Change, Germplasm, Seeds and Intellectual Property Rights

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Overview

- The Challenge of Climate Change
- The importance of germplasm and access to germplasm
- Intellectual Property Rights, Plant Varieties and Seeds
- The Controversy over Climate Ready Genes
- The real picture
- The issues and possible solutions
- Conclusion

The complex reality

- Patent applications reveal only part of the picture
- Patenting landscape is not clear but patenting is not confined to MNCs
- Patenting for defensive purposes
- Issue of access and licensing
- Possible approaches and solution

Challenge of Climate Change

- Climate Change can affect agricultural output
- Negative impact on plant health
- The need for plant varieties than can meet this challenge- stress tolerant, drought resistant, flood tolerant and plants that can resist multiple stresses
- Challenge in developing them within next few decades

Challenge of Climate Change

- Biotechnology to have an important role
- Identifying germplasm that has useful traits in developing varieties
- Combining traditional knowledge, biotechnology and plant breeding to develop relevant varieties
- So access to germ plasm is critical

The Global Regime on Accessing Germplasm

- Convention on Biological Diversity and the recent Nagoya Protocol
- International Treaty of Plant Genetic Resources for Food and Agriculture
- Trade Related Intellectual Property Rights Agreement under WTO
- National Laws on Accessing and Benefit Sharing
- Accessing collections in CGIAR Centres

The Global Regime on Accessing Germplasm

- Overlap among Agreements and Treaties
- Access is also subject to Material Transfer Agreements, Contracts relating to IP rights and other conditions
- Benefit sharing under access to collections under ITPGFRA
- Global flow of germplasm important and regulating it is becoming complex

Intellectual Property Rights

- Germplasm per se cannot be patented
- But genes, gene fragments, research tools can be patented in many countries
- Access to these technologies and materials is important
- Plant Variety Protection and Seeds- TRIPS Article 27.3(b)
- Patents and Plant Variety Protection is possible in USA for plant varieties and seeds
- European position different but patenting is possible for new plants
- Other countries – sui generis systems-
- UPOV Convention and exemptions
- IP rights and exemptions for breeders and farmers

Key Issues

- Freedom to Operate in developing varieties
- Can patents restrict access to key technologies and materials
- Will there be an anti-commons on account of fragmented rights and will IP rights aggravate this
- What are the options

Patenting Climate Ready Genes

- Controversial Claims by ETC Group
- Scope of claims and Patent Rights
- Who is patenting and what
- What are the implications of such patenting
- The question of patenting in all jurisdiction