

IPR regimes and AngRFA

Situation and possible impacts

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Overview

1. Introduction and questions
2. The legal situation
3. Impacts
4. Conclusions

INTRODUCTION

IPRs and AnGRFA

1. Geographical indications, trade marks
 - Promotion of niche markets in situation of loss of diversity due to market failure
2. IPRs conferring (limited) monopoly rights
 - Patents
 - Trade secrets

Entry of biotechnology into animal breeding leads to increasing patent protection affecting everyday agriculture

Rationale of ABS and Patents

1. Patents

promote creativity and economic growth in a market context

2. ABS

Promote conservation of biological diversity, the sustainable use of genetic resources, contribute to poverty eradication

Different types of public goods are involved; in concrete situations they might be conflicting.

Questions at the interface ABS/Patents

What is the impact of patents

1. on *access* to genetic resources;
2. on biological diversity and sustainable use;
3. on the fair and equitable sharing of the benefits resulting from the utilisation of the genetic resources?

Taking account of

- their potential to create incentives for innovation?
- the allocation of temporary monopoly rights?

More questions

1. Do patents change the «conventional (ABS) mechanisms» ...
 - i.e. private contracts of sale cum licence to utilize genetic information
2. ... in a way that makes the creation of complementary instruments necessary to reach the intended goals?
 - access, diversity, benefit sharing,
3. If so, is ABS the optimum system?

LEGAL SITUATION

Patents & AnGR(FA)

1. ABS & Patent system

- Different rationales, but also **different subjects**
- **New** genetic resources

2. **International legal obligations** are unclear, but a substantial leeway seems to be left

3. **Domestic approaches** vary, and appear inconsistent

4. Impact of patents on **ownership structure** of farm animals is important but only affects new genetic resources

5. Main issue seems to be **legal insecurity** in tracing patented characteristics

When patents come in

1. Something novel is created - Access
2. The price changes (monopoly prices) – Access
3. A monopoly holder who decides over **access**
 - Who and under what conditions
4. Possibilities of using eventual progeny and (re-)producing the animal – Access
5. A changing market structure – Access
6. The disclosure of the inventions - Access
7. A greater willingness to export and transfer products to countries providing effective IP protection – Access

TRIPs Agreement

1. Must be patented:

- Micro-organisms and microbiological processes
- Non-biological processes as patentable
- Plant varieties (either by patent protection or by a sui generis system – *nothing on **animal varieties***)

2. Left to domestic regulation:

- Plants; **animals; essentially biological processes for the production of plant and animals** (other than microbiological ones); diagnostic, therapeutic and surgical methods for the treatment of (humans or) **animals**, and inventions whose commercial exploitation would be contrary to the *ordre public* or morality

Domestic approaches

1. Developing countries

2. Developed countries

- Canada – exclusion *higher life forms*
- EU/EPO – exclusion *animal varieties*
- USA – no exclusion

3. Consequences?

- Legal insecurity - investment
- Level playing field – Cf. Internal market in EU
- Free riding?

IMPACTS

- # Impact on traditional onwership
1. Ownership over progeny is detached from the female animal and must be negotiated with the patent holder (as long as the patented characteristics remain)
 - ▶ farmers may not know after x-generations and the application of x-processes whether patent still extends (legal insecurity/traceability)
 - ▶ No jurisprudential guidance
 - ▶ Farmer's privilege
 - ▶ Issue of breeding method patents

Reversal of ownership structure

Ownership over progeny is

- Traditionally with owner of the female animal
- If animal is included in patent protection, with the patent owner – equally for male and female animals

- Shift in property rights from farmers to patent holders for the period of the patent protection
- Possible legal insecurity caused by difficulties to define duration of protection (as long as patented characteristics are expressed)
- Access to the genetic resources for their utilization in breeding may become more difficult.
- (But «farmers privilege» and «breeders exemption» in some legislation)

Hypothesis: Indirect impacts ?

Caused by

- the specifics of the patent system
- The characteristics of bio-patents

Leading to

- increased economic and legal risks and costs

- ← Insecurity as to the concrete extension of patents over subsequent generations
- ← Insecurity as to the force of a patent (scope) until judicial review by infringement dispute.
- ← High transaction costs in applying for patents; in opposing them

CONCLUSIONS

General

The «classical» ABS and «biopiracy» scenario does not apply to AngRFA

- ← Access and benefit sharing is realised via private contracts, and possibly export permits.
- ← Up to present hardly any transgenic AngRFA exist, i.e. no direct transfer of genes and resulting product patents
- ← Process patents that possibly include progeny that may have different impacts according to the concrete situation.

Hypothesis

The impacts of the process patents may differ, according to the specifics of the situation

1. Patented techniques only
2. Process patents implying progeny
3. Situation of breeders:
 - Rural breeders in the South;
 - Value adding breeding in the South
 - Rural breeders in the North
 - Small commercial operations
 - Industrial breeding operations

General 2

Impacts regarding the ABS goals:

1. Access to genetic resources of a patented animal may be more complicated.
2. It is doubted that patents – as a market oriented instrument – promote diversity.
3. They may be one factor in reduction of diversity.
4. If access to patented breeding methods is difficult for small enterprises and value adding breeding initiatives in the South, this may negatively impact economic development.

Recommendations

1. Investigate the impact of biopatents on access, diversity and promotion of livelihoods on the basis of different scenarios (farmers, small breeding companies in «herdbook-countries»; initiatives for controlled breeding and certification in the South)
2. It might be useful to - besides ABS – investigate other options to promote the intended goals, such as *sui generis* rights, general introduction of exemptions, sample contracts;