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Public research at a cross-roads:

harnessing ownership of knowledge and technology in breeding and agrobiodiversity

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This presentation

- Developments in intellectual property rights and genetic resource rights
- Options for public research based on a World Bank study




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Recent developments: patents & Breeder's Rights

- Paris Convention 1883 stimulating/harmonising patent protection
 - New, inventive step, industrial use, disclosure
- Living organisms not patentable
 - Ethical reasons
 - Practical reasons
 - Legal reasons
- Instead: Plant Breeder's Rights
- Now: TRIPs Agreement of WTO and bilateral trade agreements



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Plant Breeder's Rights _ variety patents

■ IPR system based on agriculture

- Adapted requirements: DUS-NN
- Exclusions: breeder's exemption; farmers' privilege
- Harmonised in UPOV (55 members)



■ Ban on patents on living matter lifted by US court decisions in 1980s

- Gradually applied to microorganisms, genes and plant varieties
- No exemptions, strong (reach-through) protection



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patents

■ On research tools, methodologies

- Transformation systems, Molecular marker systems,
- Sequencers, DNA-chip technology etc

■ On products

- Genes, promoters, etc.
- Plant varieties (US)
- Broad patent claims!!!

■ On information (databases)

- genomics



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Not only IPRs

■ National rights on genetic resources (CBD)

- Regulating access (among others)

■ Farmers' Rights

- Benefit sharing (among others)

■ Community Rights on traditional knowledge

- In very few countries yet



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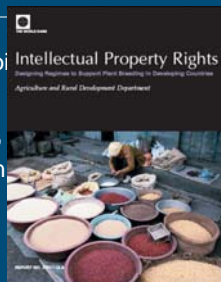
Common feeling of national policy makers



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World Bank study

- 5 countries: China, Colombia, India, Kenya, Uganda
- Stakeholder survey: public, private breeders/seedsman, farmers' organisations, IP-institutions



http://siteresources.worldbank.org/INTARD/Resources/IPR_ESW.pdf

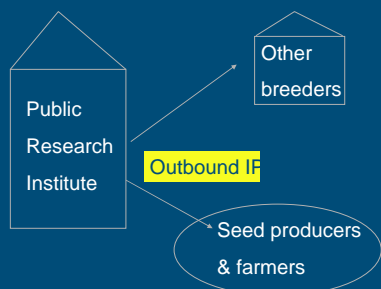
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Effects of IPR on public research

- promise of revenue
 - Patents: few institutions have net benefits
 - Breeder's Rights: net income very well possible
- recognition
- supporting the actual use of technology through PPP

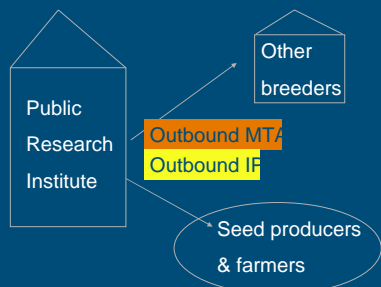
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Basic thinking in public institutes



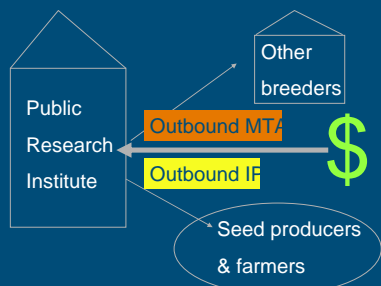
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Basic thinking in public institutes

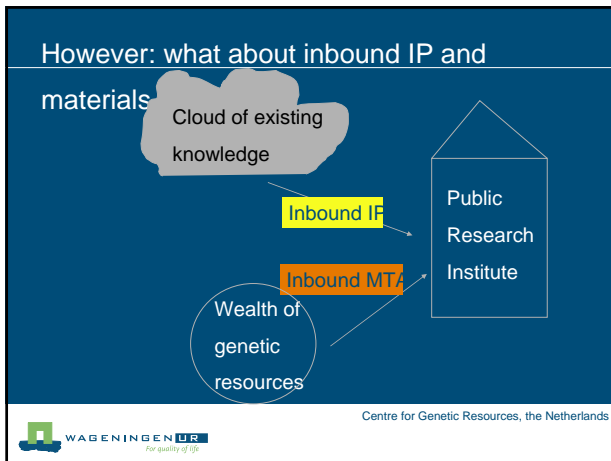


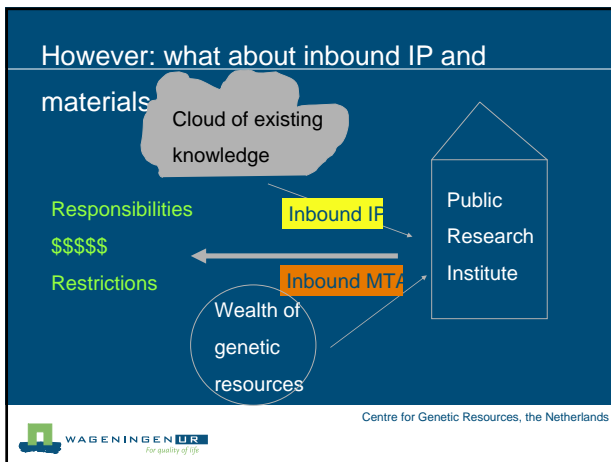
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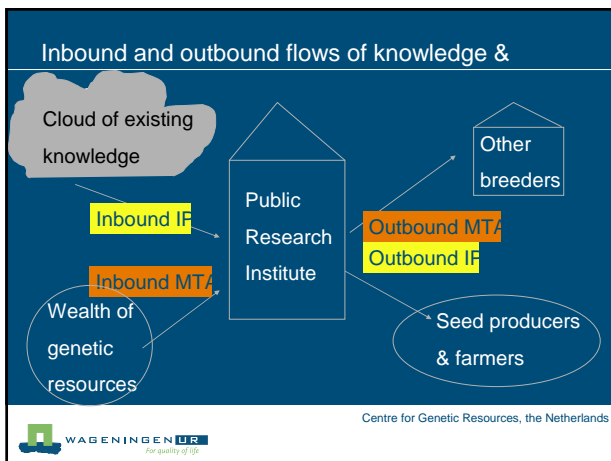
Basic thinking in public institutes

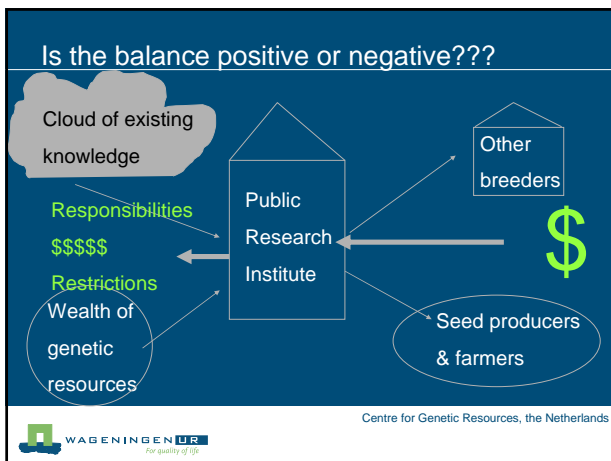


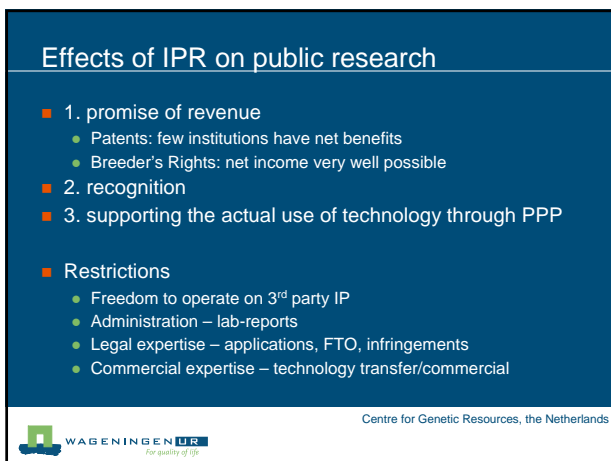
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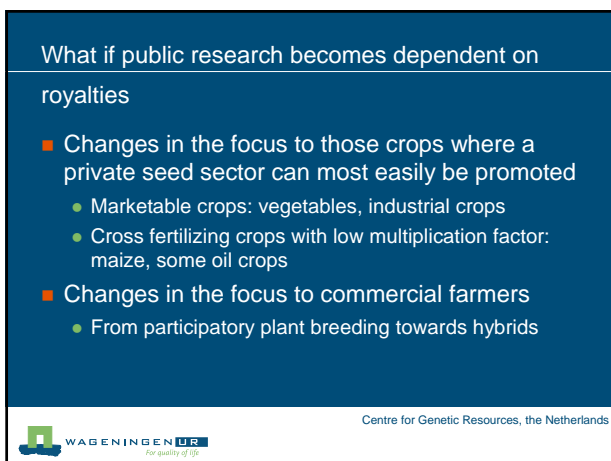












Options for Universities – based on WB-

study

- Become commercial – compete with private sector
- Accept revenue - redistribute to fulfill public task
- Move away from applied research
- Ignore the developments



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Options for Universities – based on WB-

study

- Become commercial – compete with private sector
 - China, Uganda – how to deal with less fortunate farmers?
- Accept revenue - redistribute to fulfill public task
 - Kenya – how realistic with reduced public funding? USA
- Move away from applied research
 - Netherlands – relation with private sector
- Ignore the developments



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What is your basic role ???

- Support the private sector?
 - IPRs may be necessary to conclude research contracts
- Poverty alleviation?
 - IPRs may deviate you from your task when you become dependent on revenue from these rights
- Both?
 - carefully consider your options, balancing opportunities and risk, long-term benefits and short



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Don't run away from risk: some have a different perception of risk. .

