



**Crop genetic diversity conversation,
exchange, and use**
**PERSPECTIVES ON FUTURE
SCENARIOS**

Gideon Kruseman (CIMMYT)

A convening on measuring the global consequences of
inaction, **Washington DC, August 26-27, 2019**

Context

- What is the cost of inaction with respect to investments related to crop genetic resources with a focus on the low and middle income target geographies of CGIAR
- See [Blog post](#) about the convening.
- This redacted presentation contains Gideon Kruseman's contribution to the panel on "perspectives on future scenarios"



Interdisciplinary even within economics

- Development economics basis
- Environmental economics perspective added on
- Management science concepts needed
- Evaluation science
- Financial economics
- New institutional economics/ political economics



Ecological economics perspective

Confronted with some key foresight issues

- Bequest value
- Use value
- Insurance value
- Options value
- Climate change
- New and emerging pests and diseases
- Rural transformation
- Changing diets and food systems
- Emerging game changing technology



Risk management science

- Occurrence
- Severity
- Magnitude of impact
- Sphere of Control
- Sphere of Influence
- Sphere of Concern



Evaluation science

- Impact pathways
 - States and transitions
 - Critical nodes
 - Assumptions (implicit and explicit)
 - Institutional arrangements
 - Organizational structures
 - Governance and politics
 - External factors (events)
- Can get really complex if you do it systematically.



Personas

- Design thinking (digital transformation in management science)



Financial economics

- Are we unique with our problem?
- No!
- High risk, high cost, long term investments in the energy sector have tackled this issues
- Real options theory (Robert Merton got the Nobel prize in economics for this in 1997)



Political economics

- Policy choices matter
- Interpretation in national legislation of international treaties matter
- Winners and losers of different ways of dealing with genetic resources matter





 **CIMMYT**^{MR}
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**Thank you
for your
interest!**