

The production of scientific evidence on indirect land use change and its role in EU biofuels politics



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Elisa Dunkelberg, Thomas Vogelpohl
IÖW – Institute for Ecological
Economy Research, Berlin

Overview



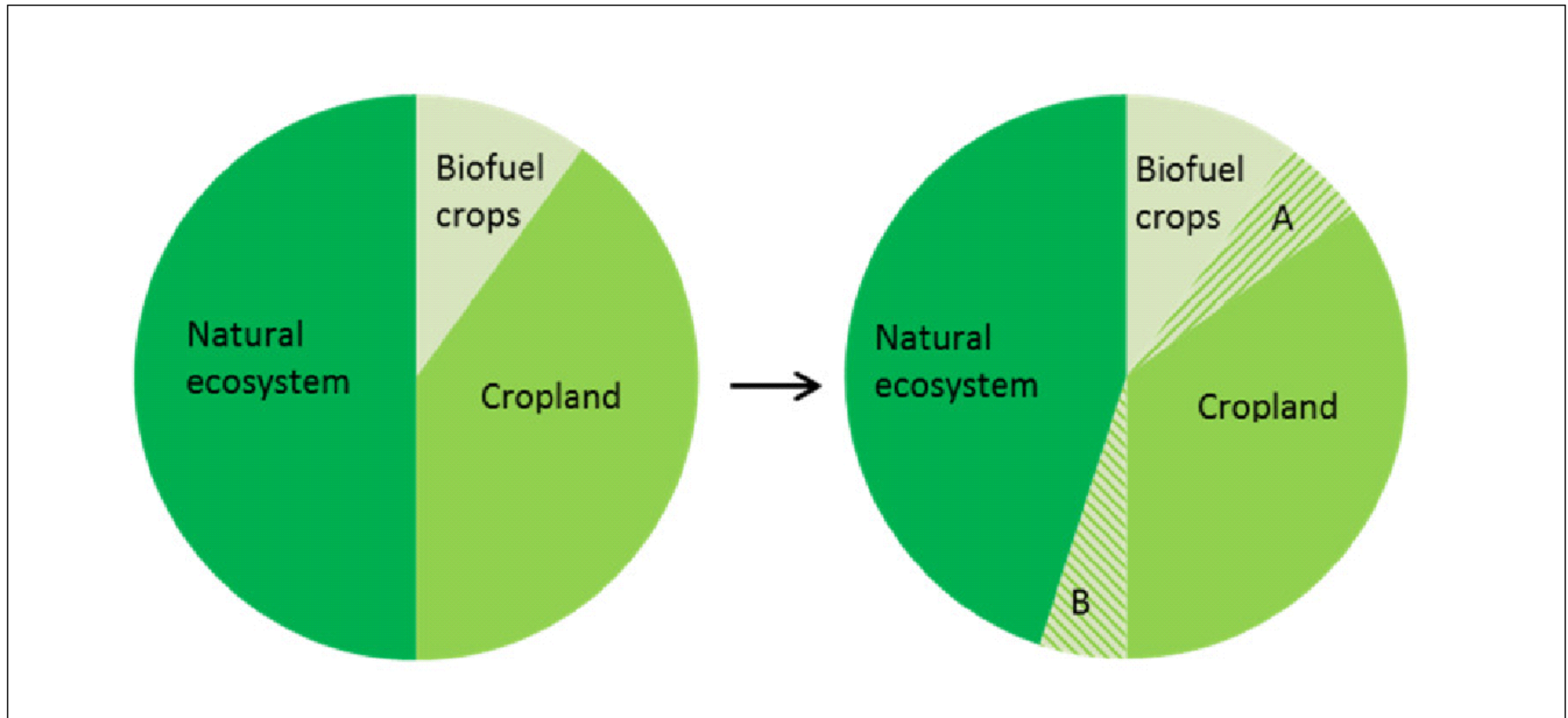
- 1. Background on EU biofuels policy**
- 2. What is ILUC?**
- 3. EU ILUC policy process**
- 4. Research Questions**
- 5. Scientific Knowledge Production on ILUC**
- 6. What kind of scientific knowledge production?**
- 7. What role of scientific evidence in the policy process?**
- 8. Concluding questions**

Background on EU biofuels policy



- **Biofuels Directive 2003**
 - Non-binding goal of 5.75 percent to be reached in 2010
- **Renewable Energies Directive 2009 (RED)**
 - Binding 10 percent target for biofuels to be reached in 2020
 - Bound to sustainability criteria
 - These exclusively include environmental criteria, e.g. GHG emissions reductions
 - DLUC is included
 - ILUC is not...

What is ILUC?



EU ILUC policy process



- **Recognized as an important issue in 2007/2008**
- **Matter of debate already in the RED negotiations in 2008**
 - Were, however, largely left out of the RED
 - Report on ILUC methodology due in Dec. 2010
- **Remained on top on the political agenda on biofuels**
 - Public consultations in 2009 and 2010
 - Growing research on ILUC commissioned by the EC as well as by other stakeholders
- **Still no decision on how to regulate ILUC**
 - Current proposal: introduce crop-specific ILUC factors

Research Questions



- **Starting point: ‚wicked problem‘**
 - Requires new kinds of scientific knowledge production
 - Transdisciplinary knowledge production
- **Questions**
 - How has scientific knowledge on ILUC been produced? Who was involved? Does it qualify as transdisciplinary knowledge production?
 - How has this knowledge been taken up and used in the different stages of the policy process? What kind of scientific evidence gained particular importance?

Scientific knowledge production on ILUC I



- **Focus on commissioned research**
- **Several societal actors involved as contracting entities**
 - EU, national authorities, NGOs, business associations
- **Common result**
 - ILUC is a severe problem that cannot be measured or observed, but need to be modeled
- **Methodologies for quantification**
 - Economic models, simplified models

Scientific knowledge production on ILUC II



– Results with regard to regulation

– Crop-specific ILUC factors

- Estimation of these factors is possible (mainly based on economic modeling)
- Put forward mainly by the studies commissioned by the EC and national authorities

– Avoid ILUC

- ILUC factors are not sufficiently robust → therefore other regulation measures such as certification, use of on unused land, increasing productivity, using residues, etc. are suggested
- Put forward by studies commissioned by national authorities and business associations

– Need for action as well as uncertainty are recognized

What kind of knowledge production?



– Transdisciplinary?

– Partly yes

- Problem-focused research carried out ,in the context of application‘
- Based on societal and scientific problems
- Wide array of societal actors involved in knowledge production

– But

- Limited formation of a common research object
- No interdisciplinary integration → traditional disciplinary research
- Limited transdisciplinary integration

Role of scientific evidence in the policy process?



- **Varying in the different stages of the policy process**
- **Policy formulation**
 - Broad inclusion of many actors and many sorts of scientific knowledge on ILUC
 - ‚extended peer community‘ and ‚extended facts‘
 - ‚science’s finest hour‘
 - Informing and horizon broadening role of science
- **Decision making**
 - Narrowing the relevant scientific knowledge
 - Focus on evidence geared to ILUC factors
 - Focus on ostensibly clear-cut numbers and ‚hard facts‘
 - Legitimizing and rationalizing role of science

Conclusion & questions



– Conclusion

- Science on ILUC fulfills certain criteria of transdisciplinarity, but still has rather been a driver of political struggles than a knowledge broker

– Questions

- What kind of science would have been needed to prevent this?
 - Would transdisciplinary research have made a difference or would it have been misused as well?
 - Or would this be an excessive demand?
 - What kind of boundary management would have been needed?
- Is the application of the conceptual model of transdisciplinarity applicable in this case?
 - On the societal level instead of on project level?

Thank you!



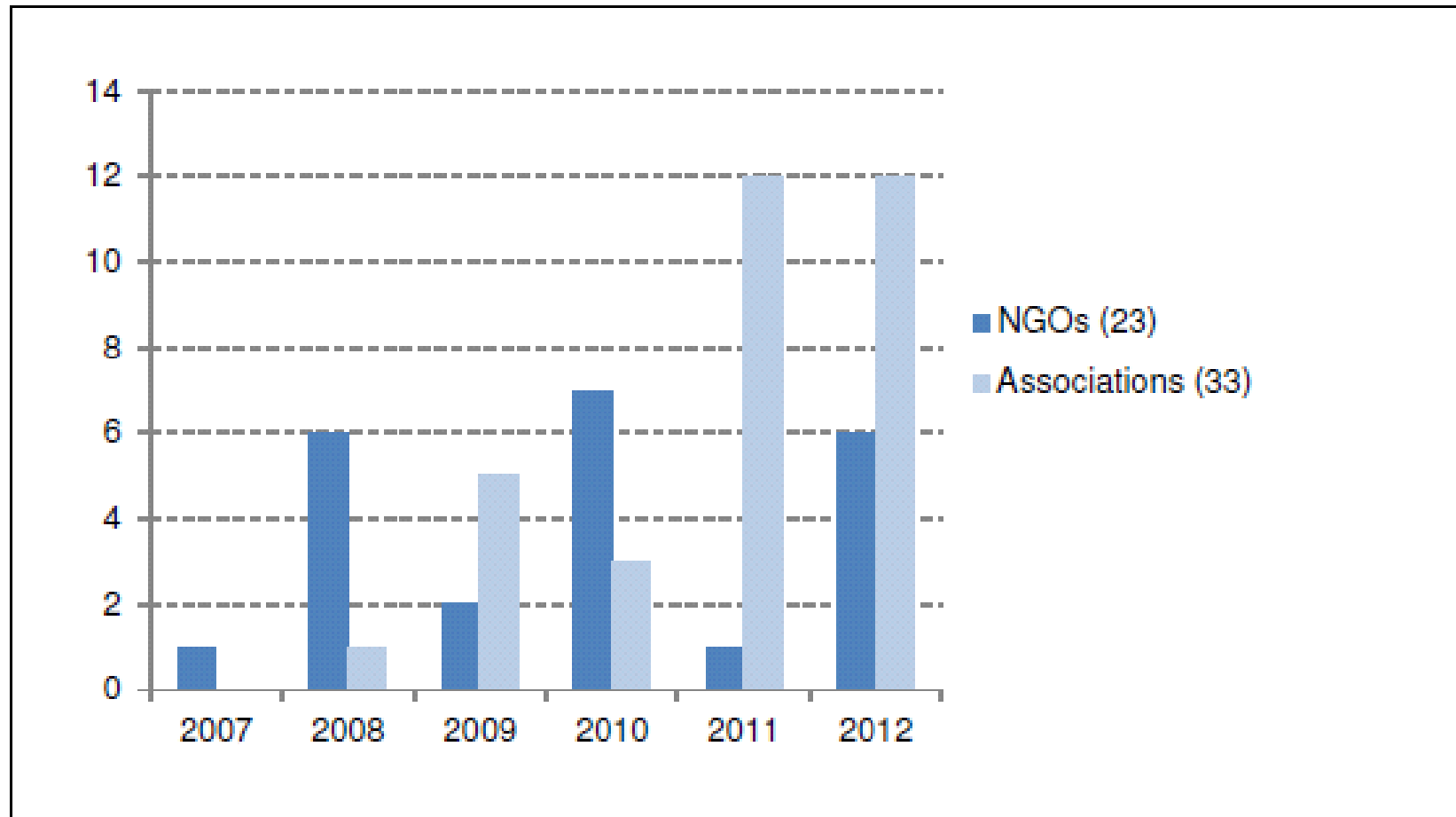
Elisa Dunkelberg, Thomas Vogelpohl
IÖW – Institut for Ecological Economy
Research, Berlin
elisa.dunkelberg@ioew.de
thomas.vogelpohl@ioew.de

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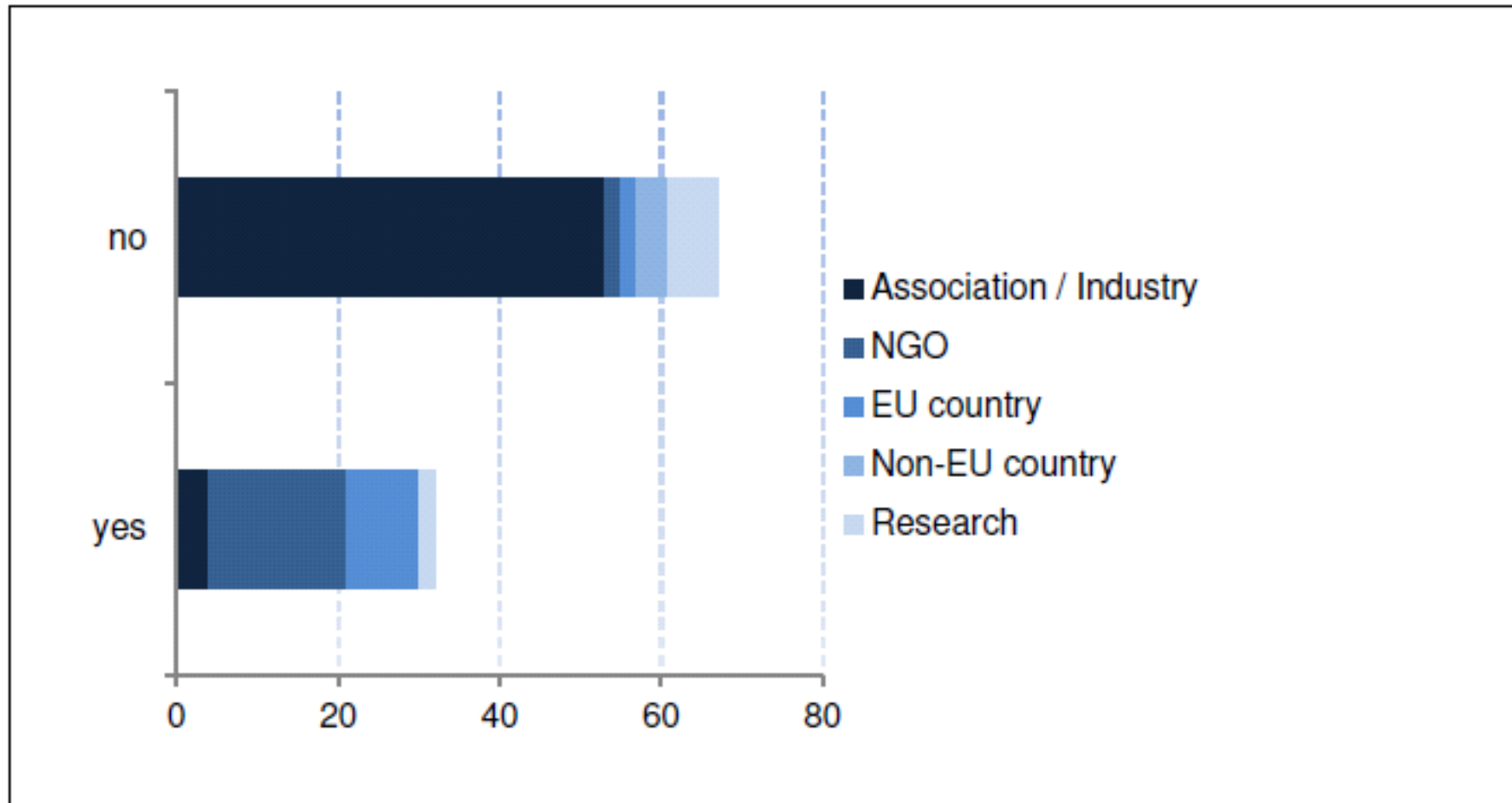
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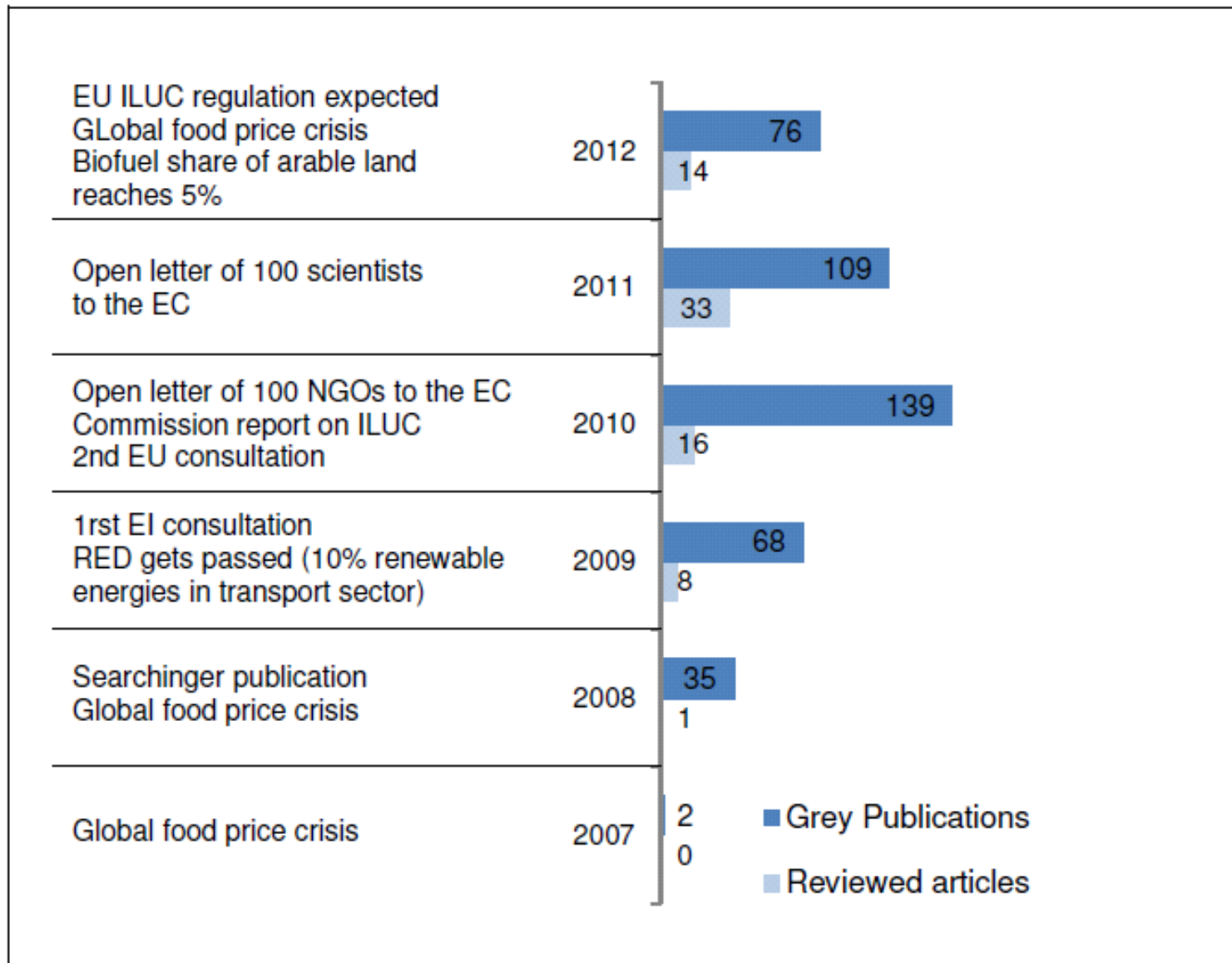
Number of position papers on ILUC published by NGOs and associations



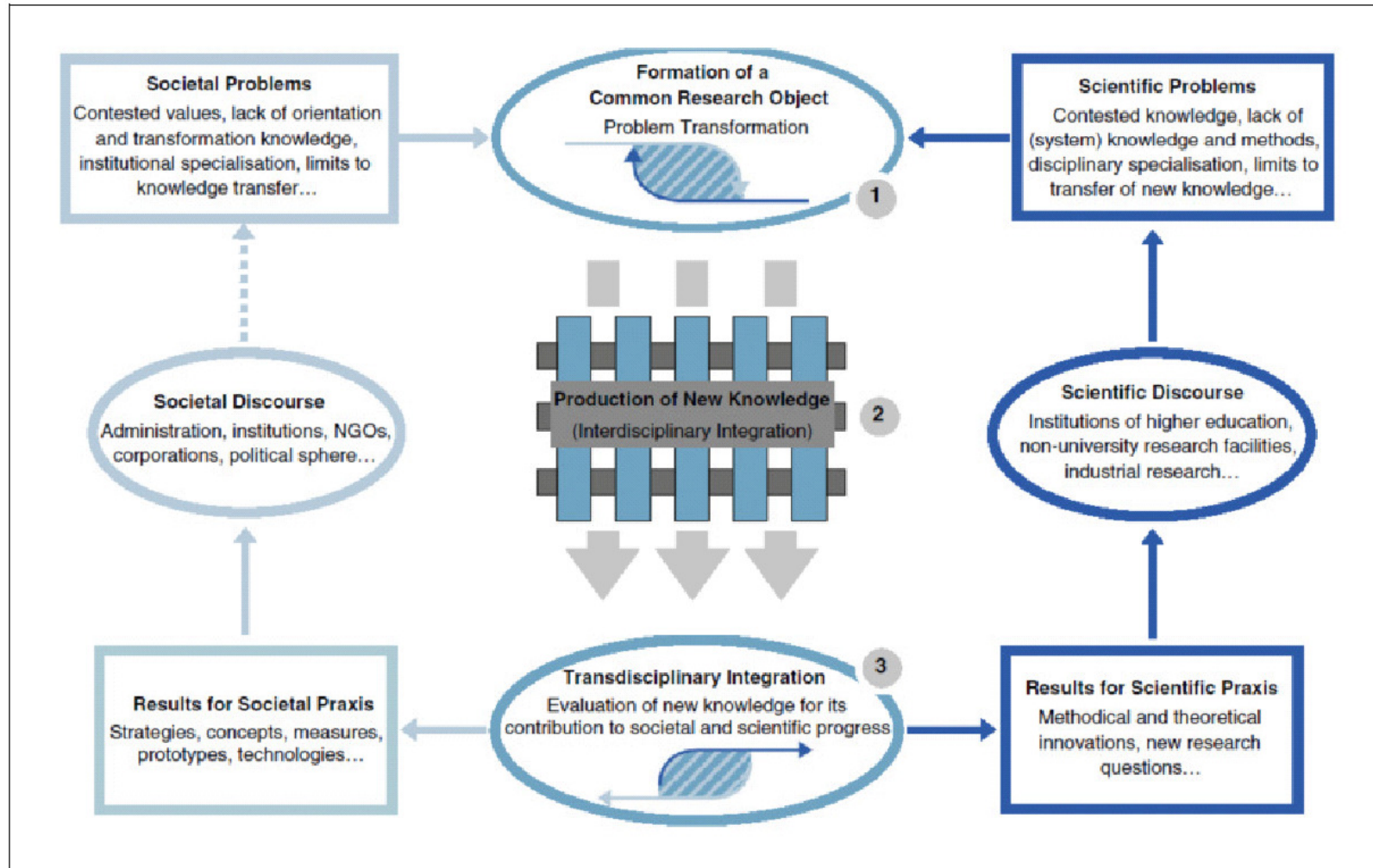
Stakeholders' answers in the public consultation on ILUC in 2010



Number of scientific publications on ILUC



A conceptual model of transdisciplinarity



A conceptual model of transdisciplinarity

