Science-based policy advice in agriculture, food, climate and environment

Organization of science-based policy advice in a sectoral research institution – experiences from Luke Finland

Principal Scientist Pasi Rikkonen, DSc (Econ. and Bus.Adm.)

Prof. Jyrki Niemi (Agricultural policy)



Luke in brief



- Natural Resources Institute Finland (Luke) is a research and expert organization with expertise in renewable natural resources and sustainable food production.
- Through research, we create value and solutions for our customers by solving local and global challenges.
- Our strengths are in sustainable production and use of natural resources and thorough knowledge of bio-based raw materials.



 Luke has about 1,300 employees, about half are researchers. We operate at 23 locations throughout Finland.

2

Case: Evidence-based support for agricultural policy-making

A wide range of objectives has been specified for agriculture: food production, productivity, farm income, water protection, GHG emission reduction, biodiversity, wellbeing of farm animals etc...

 Luke's research seeks to answer the following important questions:

1) Under what terms and conditions will Finnish agriculture adapt profitably to future policy and market changes?

2) How will agriculture, in addition, cope with its objectives in terms of climate change mitigation, water protection, biodiversity enhancement?

3) How agriculture meets consumers' new requirements, including safe, nutritious and sustainable food, reduced food waste and animal welfare?

Policy advice outcomes

- Agricultural policy research has long tradition at Luke and has provided policy advice for decision makers on the basis of our research results.
- Luke's contribution is to improve the ability of policymakers understanding the trade-offs associated with policy choices.
- In practise the impact has been achieved by
 - 1. Research reports and synthesis papers,
 - Separately requested analyses and policy briefs (through e.g. direct annual service contract between MAF and Luke),
 - 3. By direct face-to-face interaction with Finnish policymakers (seminars, workshops, meetings etc.),
 - 4. By acting as experts in administrative working groups,
 - 5. By stimulating public debate through the media.

Long tradition of Statutory and Expert services supporting Research in Luke



Both 1) 'demand led' and 2) 'supply driven' are needed in order to build policy support capacity



- Luke's research on agricultural policy has influenced policy through direct engagement with policy makers.
- Luke responds to policy makers' priority issues and undertake "demand led" analysis to address those.
- Luke provides quick response to specific requests to the issues that they themselves identify (short-term decision-making)
- Mainly policy briefs, synthesis papers, summaries

2. Luke's supply-driven research strategy and competence building

- Luke identifies the mid and long-term research focus areas and goals, and therefore competence needs within research institute
- Maintains and develops also competences to response to the **#1** demand led analysis



Maatalouden tukijärjestelmää ehitettävä tukemaan viljeityjen turvemaiden ilmastokestävää käyttöä

Vigetigen tur vernalden maaperän ilmastoslaksisti olivat vuonna 2018 heensä 75 miljoonaa tonna hilidiskaidekvuolentitu, mikä on suurenpi päähstähtidekkainis seurenn kisko herkitäustotelenne. Maadisuuten mikrisen tuksjägestaitieli eli kuterkaan tue kakkien turnistottojen ja ensissä teihökämisen pääksöhöhennyikeinegen käyttööntöön.

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- Responds to wider societal demand for research (e.g. climate mitigation measures in peatlands)
- Research anticipates major challenges arising in the operational environment and alerts decision-makers about the need to respond proactively (long-term decision-making).
- Quite often it is about discovering under-appreciated/conflicting facts about the ways that agrifood systems work (e.g. mitigation needs (peatlands), water protection needs, biodiversity loss) Main goal is in peer reviewed articles, but also applicable policy briefs



Both 1) 'demand led' and 2) 'supply driven' are needed in order to build policy support

1. Organisation of demand led policy advice in Luke

- Through annual result agreements between the Ministry of Agriculture and Forestry and Luke
 - Beforehand agreed topics and tasks to support policy processes traffic light monitoring
 - Includes also a specific, annual Service Contract in where key tasks for agricultural policy support are listed
 - List of expert services, experts and contact persons between MAF and Luke (also serving other ministries)

2. Organisation of Luke's supply driven research

- Luke's research project portfolio, expertise and investments are organized in research programmes
 - Answering the challenges faced by the nature, the livelihoods and the society
 - Answering to the external funding opportunities (such as Finnish academy, H2020, HE)
 - Conducting research through joint funded and customer projects in different consortia
 - Increasing the impact of research through science
 - Supporting also the competence building for policy advice

Luke's Four Research Programmes



Principles in policy advice

- Expert role and scientific information in the public debate is constantly questioned
 - More effort is needed to keep the research as transparent as possible concerning research goals, methods (assumptions), results and conclusions
 - Continuous discussions within research community and with policy-makers, actors and stakeholders
- How to ensure integrity, independence and consistency over time in sciencebased advice for policy-making

Principles in policy advice:

- Bases on scientifically solid work (evidence-based policy support)
- Methodology development is continuous (through peer review)
- The use of methods is transparent and enables development feedback (especially with research community; co-development)
- Advice is organised as a continuous mode during the whole decision-making process (not just at one point of time)
- Timely and relevant (timing of the research input in decision-making process)
- Improves the ability of policymakers understanding (describe what is possible and with what cost)

Some challenges in policy advice

- Low critical mass, expertise may be in some cases overly dependent on individuals (person dependence)
 - Recruitments, competence building as a long-term goal
- Lack of resources OR they do not allocate properly in order to improve the long-term ability to serve
 - short-term "fire-fighting" policy analysis is important, but anticipation of new future challenges (and therefore new competence building) should exist
- Limited incentive to frontier research, abandonment of independently set research agendas and priorities in favor of agendas determined by funding government agencies
 - Both are needed 'demand-led' and 'supply-drive'
- Enhancement of interaction across disciplines in designing multidisciplinary research where it is appropriate
 - More and more important to discuss the substance inside organization, together with research community and governmental officials and policy-makers (transdisciplinary)
 - Collaboration with the colleagues and institutions abroad is much appreciated!



Thank you! pasi.rikkonen@luke.fi



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