



RECIPES
Precaution • Innovation • Science

WP2 Note on the adoption of the gender analysis in the case studies

K&I



The RECIPES project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824665

Authors

Giovanna Declich, K&I, Rome

With thanks to:

Project coordination by Maastricht University, IASS

Manuscript completed in December 2019

Document title	WP2 Methodological framework for the case study analysis
Work Package	WP2
Document Type	Internal
Date	December 31, 2019
Document Status	1st version

Acknowledgments & Disclaimer

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 824665.

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information. The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

List of abbreviations

- DOA** Description of Action
- WP** Work Package
- PP** Precautionary principle
- IP** Innovation principle

Contents

1	Introduction	2
2	The gender analysis in the RECIPES case studies	3
2.1	Gender and research questions	4
2.2	Sources	5
2.2.1	Desk research	5
2.2.2	Interviews	6
2.3	Case study methodology	6
2.3.1	Executive summary/timeline	6
2.3.2	Precautionary principle considerations	6
2.3.3	Innovation	7
2.3.4	Synthesis and Conclusion	7
3	References	7

1 Introduction

The RECIPES project aims to reconcile science, innovation and precaution by developing new tools and guidelines, based on co-creation with stakeholders, to ensure that the precautionary principle is applied while still encouraging innovation.

The RECIPES project comprises three research phases.

In the framing phase of the project, the RECIPES Consortium examined the effect and the application of the precautionary principle since 2000 by combining legal analysis, desk research and a narrative literature review, complemented with a media analysis of the public discourse around the principles of precaution and innovation, to understand the different stakeholder perspectives.

In the analytical phase of the project, an innovative conceptual framework for comparative multiple case study analysis has been developed, in order to perform case-study analyses. This will be combined with scenario building.

In the developmental phase of the project, scenario workshops will be combined with a multi-criterion assessment framework to develop and assess the usefulness of the to-be-proposed new tools.

In the project DOA, the need to take into account sex and gender categories while performing the research activities was declared.

Plenty of literature shows indeed how neglecting sex and gender aspects¹ in research, besides producing shortcomings in results, often generates economic and social problems, ranging from the late detection of cardiac attacks in women up to the ineffective planning of public transports in cities. More in general, a missing or defective integration of science and society is amplified by the lack of consideration of both genders' needs, behaviours and attitudes in social life.

On the other side, there is also wide evidence about how gender analysis enhances research in all its phases and steps², from setting research priorities to commercializing outputs or even to design research policies. Interesting examples of gender-sensitive research, implying something like an effective co-creation in scientific and technological environments have been implemented and reported in recent past (see: Gendered innovations, Assessing Women's and Men's Needs for Assistive Technologies³; Gender-Aware Housing and Neighbourhood Design⁴).

¹ Sex refers to a biological quality or classification of sexually-reproducing organisms, generally female, male, and/or intersex), while gender refers to socio-cultural attitudes that shape behaviours, products, technologies, environments, and knowledge. Gender attitudes and behaviours are complex and changing as cultural norms and values change across time, with education, wealth, and age, and are specific to cultures, religions, ethnicities, and infrastructures (<http://genderedinnovations.stanford.edu>).

² According to the Gendered innovation project, sex and gender analysis enhances all phases or research, i.e., setting research priorities, making funding decisions, establishing project objectives, developing methodologies, gathering and analyzing data, evaluating results, developing patents, transferring ideas to markets, drafting policies) see: <http://genderedinnovations.stanford.edu/what-is-gendered-innovations.html>

³ <http://genderedinnovations.stanford.edu/case-studies/robots.html#tabs-2>

⁴ <http://genderedinnovations.stanford.edu/case-studies/urban.html#tabs-2>

This is why the EC, having included gender equality among the objectives of the European Research Area, has also adopted “gender” as one of the six keys of the Responsible Research and Innovation (RRI) strategy.

From the practical standpoint, the Euro-American project Gendered Innovation has devised a set of methodologies and checklists to ease the work of researchers and their organisations to incorporate a gender perspective in research activity all along its development.

This is what RECIPES will try to implement during the whole project duration (in the box below, the methods of gender and sex analysis of Gendered Innovation⁵ are listed, and the possible use of it is highlighted).

Analysing Sex and Gender in each step of the research process:

Rethinking Research Priorities and Outcomes

Rethinking Concepts and Theories

- **Formulating Research Questions**
- **Analysing Sex**
- **Analysing Gender**

Analysing how Sex and Gender Interact

- **Analysing Factors Intersecting with Sex and Gender**
- **Engineering Innovation Processes**

Designing Health & Biomedical Research

- **Participatory Research and Design**

Rethinking Standards and Reference Models

Rethinking Language and Visual Representations

2 The gender analysis in the RECIPES case studies

As detailed in the project deliverables D2.1 and D2.2, the overall aim of WP2 is to understand both the actual and possible application of the precautionary principle in eight different cases, and explain potential commonalities and differences in the application of the precautionary principle in the cases. This analysis should reflect the particular context of the case and reveal the arguments that have been used for invoking the precautionary principle and/or adopting precautionary measures (even without mentioning the precautionary principle).

The multiple case study component of the RECIPES project is one of the key analytical phases of the project. Within the scope of the entire RECIPES project, WP2 builds on aspects of WP1, in particular the final WP1 report taking stock of the precautionary principle

⁵ <http://genderedinnovations.stanford.edu/methods-sex-and-gender-analysis.html>

since 2000. The outputs of WP2 will feed directly into WP3, with the aim of the development of new tools and approaches to the PP in a co-creation approach.

All this considered, in principle the multiple case study component is particularly suitable for gender analysis.

However, it should be considered that the main source of case studies are already existing documents, i.e., research studies, policy documents, media etc., which could be gender biased and/or overlooking the relevance of the sex-gender variables.

This is why it would be wise starting by looking traces of sex-gender analysis in the sources analysed, and, even in case they are absent, questioning about potential gender issues that arise in the cases studied, relating to the contents and methods of the studies and policies examined.

What follows is a series of suggestions, based on the case study methodology set up by the partners in charge of WP2 and described in the related deliverables.

2.1 Gender and research questions

Here below, an attempt is made to show how gender considerations are possible in relation with the research questions of the case study analysis, as they are formulated in D2.1 (Conceptual framework).

Gender and research questions:

Case studies research questions	How to include gender considerations
<p>As stated in the conceptual document, at the individual case study level (task 2.3) the main research goal is to:</p> <p><i>Understand the complexities and controversies around the potential application of the precautionary principle for the case study topic. Where the PP has not been explicitly invoked, the goal is to analyze if the conceptual core of the PP, and in particular scientific uncertainty, is present to invoke the PP.</i></p>	<p><i>Do sex (biological) and gender (socio-cultural) variables appear in the case studied? Are the controversies around the PP for the case study topic some way related, explicitly or even implicitly to such variables (e.g. higher mortality rate of female bees; higher economic fragility of women in accessing loans and bank credits)? Are authors of the documents examined aware of such categories?</i></p>

Secondary research questions/goals are:

Describe the specific context of the case study: legal and/or policy discussions (environmental, economic, risk policy), as well as social and cultural context.

Ascertain if and how sex and gender differences emerge as relevant in the specific context of the case studied. Some examples: supposed higher risk for female than male animals related to the exposure to specific components of pesticides; different impact of specific fiscal provisions on single parent families headed by women and men

How have/do precaution and innovation interact in the case study? Are they in tension?

In case sex/gender differences emerged as meaningful variables in the individual case studied, are such aspects relevant in the dialectic between precaution and innovation?

How do the risk properties of complexity, ambiguity, and especially uncertainty add to this understanding, and how have they been understood by various relevant actors (legal, policy makers, the risk community, NGOs, industry, the public)?

Verify if women's organizations at national and international level such as feminist NGOs or networks, women's professional or scientific associations (or women sections of general associations) are present among the relevant stakeholders and, if appropriate, their points of view are considered.

(How does this case challenge the innovation/PP juxtaposition?)

2.2 Sources

The following attentions should be applied while accessing the sources (secondary and primary) as described in the methodology (see deliverable D2.2).

2.2.1 Desk research

Looking into the sources if and how considerations about sex (e.g. diversified impacts of chemical products on female and male animals and humans) and gender aspects (e.g. different access of women and men to technologies, diverse impacts of technological innovations on women/men beneficiaries, less access to credit and financial instruments in general by women than by men) of the case are reported, and referring to what scientific areas.

In case of reports of research studies, surveys etc, please verify if differences of opinions, perceptions, sensitivities between women and men interviewees are reported (e.g. there is a widespread idea about the fact that women share a bigger concern about environmental risks than men).

Regardless of the relevance the sources attach to gender issues, please highlight the presence of potential gender issues that may be involved in the case study.

2.2.2 Interviews

Besides considering among stakeholders, whenever relevant, also women's organizations (or women sections of general professional/scientific associations), an attention should be paid to include persons of both sexes in all the cases where a choice is possible.

2.3 Case study methodology

Hereinafter, the outline of each case study report is scanned (see deliverable D2.2), and suggestions for including sex and gender categories into the analysis are provided.

2.3.1 Executive summary/timeline

Highlight, if appropriate, the relevance of sex/gender aspects in the case study. In case these aspects become relevant in a particular moment (e.g. the entry into force of a regulation, an important case of news, etc.) please stress it in the timeline.

2.3.2 Precautionary principle considerations

2.3.2.1 Outline the 'risk/threat' of the case topic

Describe if, in the case studied, sex/gender-related considerations have been included in defining the risk for people and/or environment by the literature and the policymaking. Explain, in case, which aspects were pointed out and from which scientific area.

Assess whether or not, according to your point of view, they have been given the right weight.

2.3.2.2 Precautionary principle: conceptual core

While analysing the conceptual core of each case, verify if sex/gender aspects were included in the scientific and policy debate (e.g., while defining the level of ambiguity inherent to scientific uncertainty, check if differences between women's and men's evaluations of the outcomes of the studied technology/product emerged; while commenting on the threshold of damage, ascertain if a diversified level of damage was detected on female/male animals and humans).

2.3.2.3 Governance and PP/risk governance

Complementing the information already given in the previous paragraphs of the analysis, assess the way the risks inherent to the case was estimated and managed from the point of view of sex/gender aspects (e.g. possible divergences between social scientists natural/technical/medical scientists concerning the relevance of sex/gender factors in assessing the risk or in deciding the measures to be adopted).

Provide a general overview of the sex/gender aspects in the dynamics PP-innovation-IP in the case studied.

2.3.2.4 Legal and Regulatory history

Describe (if any) the presence of sex/gender aspects in the legal framework and in the court cases of the case study and, in case they are mentioned in your case study, in the other relevant regulations.

2.3.2.4 Criticism of the PP

In case stakeholders called for the revision of the PP in the case studied, notice if and how considerations about sex and gender categories have emerged, and which arguments were presented.

Highlight the possible role of women's organisations (e.g. feminist environmentalists) and women leaders and/or representatives of their institutions (e.g. industry, trade unions etc) in the debate.

2.3.3 Innovation

2.3.3.1 Intro and Innovation pathways

While describing the benefits of the technology making the object of the case, and the related actual or potential innovation path, verify if sex/gender differences have been studied and highlighted. Describe whether and how are/have been women's organisations (e.g. feminist environmentalists), or important women leaders, involved in the debate and the positions they expressed.

Regardless of the relevance the sources attach to gender issues, please highlight the presence of potential gender issues related to the innovation pathways considered.

2.3.3.3 Innovation principle

Describe (if any) the role of women's organisations, or women leaders/representatives of their institutions, in the debate related to the innovation principle.

2.3.4 Synthesis and Conclusion

In summarising and concluding the case, include the description of whether and how sex/gender categories were considered and suggest aspects to be considered for the cross-case comparison.

3 References

Rini, J. (2019) WP2 Conceptual framework for comparative multiple case study analysis, RECIPES

Rini, J. (2019) WP2 Methodological framework for the case study analysis, RECIPES

Schiebinger, L., Klinge, I., Paik, H. Y., Sánchez de Madariaga, I., Schraudner, M., and Stefanick, M. (Eds.) (2011-2020). Gendered Innovations in Science, Health & Medicine, Engineering, and Environment (genderedinnovations.stanford.edu)

Vos E. & De Smedt K., (2019) WP1 Report Taking stock as a basis for the effect of the precautionary principle since 2000 (draft), RECIPES