

Did Lithuania use one more chance to create a National Forest Programme? – An integrated evaluation of the National Agreement on Forests

Ekaterina Makrickienė*, Gintautas Mozgeris

Vytautas Magnus University Agriculture Academy, Department of Forest Sciences, Studentų str. 11, LT-53361 Akademija, Kauno, Lithuania

Abstract

This study explores Lithuania's National Agreement on Forests (NAF) as a potential framework for better forest governance, focusing on its alignment with the principles set by the Ministerial Conference on the Protection of Forests in Europe (MCPFE). Through document analysis, stakeholder interviews, and power analysis, we assess how well the NAF fosters inclusiveness, inter-sectoral collaboration, long-term commitment, and capacity building. Our findings reveal that while the NAF has made notable progress in improving stakeholder participation, challenges persist in integrating different sectors and addressing conflicts between economic and ecological priorities. Overall, the study concludes that the NAF is a step forward toward a National Forest Programme, though it needs further refinement to achieve long-term sustainability and policy coherence.

Key words: policy analysis; adaptive governance; power relations; stakeholder participation

Editor: Jaroslav Šálka

1. Introduction

The necessity of national forest programmes (NFP) has been widely discussed since 1990s, when the importance of the clear forest policy goals and transparent participatory process of these goals' formulation was stressed by FAO (2006). The requirements for the adoption of NFP was also formulated and accepted in Agenda 21, signed by more than 178 governments (United Nations 1992; Mayers 2003). Later, the "Non-legally Binding Instrument on All Types of Forests" (2007) was adopted by the United Nations as one of the key documents for the implementation (MCPFE 2015). Often, on the international level the NFP is understood as a concept, enabling the international agreements on sustainable forest management to be put into practice on a national level (FAO 2006). The NFP may also be understood as a country-specific participatory process, including goal-setting, policy planning and implementation (Shannon 1999; Schanz 2002; Lovrić et al. 2012). In the European Union, NFPs are highly promoted by the Ministerial Conference of Forest Protection in Europe. According to the MCPFE definition, NFP is a "...participatory, holistic, inter-sectoral and iterative process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level in order to proceed towards the fur-

ther improvement of sustainable forest management..." (MCPFE 2002). By 2015, 32 of 33 countries, reporting to MCPFE, announced, that they had NFPs or at least NFP-related documents and processes. Moreover, some of the countries, e.g., France, Finland and Hungary already regularly review and update the existing programmes (MCPFE 2015; Katila 2017).

Since late 1990's, NFPs have become not only a policy instrument, but also were extensively studied by forest policy researchers. In 1998, a seminar dedicated to the NFP formulation in European countries was held in Freiburg, Germany. 16 European countries presented their reports on NFP or similar processes implementation progress. The results of the seminar showed the high variety in NFP approaches among the participating countries, caused by the diversity in natural, economic and societal conditions (Schanz 1999). Later, NFP processes were studied from two main views. The first one was the evaluation of NFPs as participatory processes, and the studies of this type are the most abundant. Evaluating the participatory processes, authors state the importance of the selection of participants for the discussion, as it may influence the final NFP results (Elasser 2002). At the same time, the selection of participants may have the manipulatory character. So, the German experience showed, that the forestry coalition invited their counter-

*Corresponding author. Ekaterina Makrickienė, e-mail: ekaterina.makrickiene@vdu.lt

© 2025 Authors. This is an open access article under the CC BY 4.0 license.

part to the NFP process mainly to occupy them with the long-term discussion, which had no substantial influence on the final political decisions (Winkel & Sotirov 2011). There were also doubts, if the “representatives” in the NFP process are really representing public interests. The results of the German case study showed, that the general public evaluated NFP aims similar to the NFP process participants, however, the assessment of those aims between the stakeholders and general public is different (Elasser 2007). Still, in the countries with a long experience of creating forest-related strategies (e.g., Finland), NFP helped to improve the existing participation processes and raise the awareness about forest-related issues (Primmer & Kyllonen 2006). Recent NFP processes tended to be designed with a thorough attention to the representation of all interests, early involvement and transparency (Balest et al. 2016). Still, often the main weaknesses of NFP process were the low involvement of citizens and the difference in knowledge and skills among the participants of the process (Balest et al. 2016; Katila 2017).

The second direction of NFPs investigations was related with their focus on the effects on forest policy changes and planning processes. Most of the authors conclude, that the NFPs may have a smaller effect on the changes in forest sectors and forest policies, than it was aspired by the international organizations (Schanz 2002; Voitleithner 2002; Johansson 2016). In some cases, NFPs can be launched as a tool to satisfy the international community and increase the prestige of the local forest sector (Winkel & Sotirov 2011). However, a general overview of several European NFP processes showed that the overall effects of NFPs overweight their weaknesses (Balest et al. 2016), at least as a tool to raise public awareness in forest-related questions (Linstad 2002).

Since regaining its independence from Soviet Union in 1991, Lithuania has faced multiple changes in economy, society and environmental attitude. However, despite the deliberation in many economical sectors, forestry remained strongly dominated by the state authorities (Lazdinis et al. 2005). At the same time, there were severe changes in the forest ownership system: while during the Soviet times the forests were a state property, after regaining independence Lithuanian government performed the restitution process, returning the forest ownership to the pre-war landowners or their heirs (Brukas 2015). Currently, private forests occupy 929 thousand ha, what is 42.2% of total forest area in Lithuania (State forest service of Lithuania 2021). Usually, private forests in Lithuania are owned by hundreds of thousands of individual owners, whose objectives and management goals are completely different, depending on the estate size, family traditions and own ideas (Stanislovaitis et al. 2015). As a result, some of the private forests are not managed at all, while some of them are intensively managed (Stanislovaitis et al. 2015; Mozgeris et al. 2017). Also, together with the growing

private forest sector, there was a complete separation of forest logging and wood processing operations from the state forestry (Brukas 2015). The combination of these separation processes together with growing ecological considerations and large number of emerging protected territories, environmental NGOs, hunting associations and other organizations became a precondition for the formation of a large number of conflicts in Lithuanian forest policy arena (Juerges et al. 2017). The old habits, dominating role of the state together with the heavy legislative load resulted in tenacious command-and-control forest governance, characterized especially by the low levels of adaptiveness and participation in forest-related processes (Makrickiene et al. 2019).

As an EU member state, Lithuania is also an active participant of MCPFE, as well as a country signatory of the Agenda 21. Although neither Agenda 21 nor the MCPFE recommendations are legally-binding documents, Lithuanian government has put many efforts into the implementation of these agreements. However, the first Lithuanian forest policy planning document was not created as a pure NFP. The first draft of Lithuanian Forestry Policy and its Implementation Strategy was introduced in 2001 by the Department of Forests and Protected Areas under the Ministry of Environment. Later, the draft was presented to the number of stakeholders, represented by the State Forest Service, Directorate General of the State Forests of Lithuania, the Forest Management Planning Institute, the Forest Research Institute, Forest Faculty of Lithuanian Agricultural University, the Association of Lithuanian Wood Working Industry, the Forest Owners Association of Lithuania, the Nature Fund of Lithuania, the Forest Sanitary Protection Station, the Lithuanian Forest Tree Breeding and Farming Centre. After the corrections, suggested by the stakeholders, the draft Strategy was published in the foresters' magazine (Mizaras & Mizaraite 2004). The final document was adopted in the end of 2002 and is still considered valid (Lietuvos Respublikos Aplinkos Ministras 2002).

The second relevant document, mentioning the plans for the development of the Lithuanian forest sector, was the National Forest Sector Development Programme 2012–2020. The action plan of the programme corresponded to the aims, mentioned in the Lithuanian Forestry Policy and its Implementation Strategy, however was more detailed, and mentioned the exact actions and the terms for their implementation (Lietuvos Respublikos Vyriausybė 2012). The overall process of the formulation of this document took almost 2 years due to the conscious efforts of Department of Forest in Lithuania to organize a participatory process and listen to the opinion of all the stakeholders (Kupstaitis 2012). However, many processes and decisions required serious compromises, what complicated the transparent participation, and finally the process of the formulation of this programme was also dominated by the state institutions (Makrickiene 2019).

Despite the attempts to create the national forest policy framing documents, there were issues both in the procedures to develop and implementation of adopted documents, such as lacking elaborations on common vision of the future Lithuanian forests by diversity of stakeholders, limited methodological approaches to get the final product, involvement of just several but most powerful stakeholders, and, finally, limited follow-up and adjustment approaches. This uncertainty resulted in constant changes in forest legislation. From 2001 to 2021 the Forest law of Lithuania was changed 38 times (<https://e-seimas.lrs.lt/portal/legalActEditions/lt/TAD/TAIS.6036?faces-redirect=true>). Although the external expertise evaluated Lithuanian forest sector as corresponding to the criteria of sustainable forest management (Forest Europe 2015), the results of the national control audit revealed the number of problems, such as insufficient protection of Lithuanian forests and natural values, the aim of increasing the share of forests was not reached, the share of damaged trees was growing. It was assumed, that the global climatic and societal changes are a big challenge for the Lithuanian forest sector, especially taking into account the growing disagreements and conflicts between the stakeholders and the decision-makers (National Agreement on Forests 2022). In 2018, the Lithuanian government initiated the state forest governance reform, which resulted in merging of 42 separate state forest enterprises into one state enterprise with 26 regional branches. The reform evoked many discussions in the press and dissatisfaction both from foresters and general society (Žilytė 2018). In parallel, it fueled an increasing interest of society on the processes inside and outside forests and forest sector. In 2020, the 18th Lithuanian Government issued their strategy, where the development of the forest sector and environmental issues were named among the priority areas of development. Among the key development goals the Government listed the increase of forest cover, larger share of protected territories and higher level of public participation in the solution of forest-related problems and questions. One of the aims on the way to reaching those goals was: “To prepare and submit to the signatories a national agreement on the protection and use of forests, which would agree on long-term balanced forest policy directions” (Seimas of the Republic of Lithuania 2020). So, in 2021 Ministry of Environment of the Republic of Lithuania initiated the process of National Agreement on Forests (NAF). The process was initiated as a reaction

to the newest challenges of forest sector, the necessity to reflect those challenges in the national forest policy, and as a possible way to solve such acute problems of forest sector as better biodiversity protection, raw material export and public participation in the decision-making (National Agreement on Forests 2022). The start of the NAF process coincided with the end of the National Forest Sector Development Programme 2012–2020.

So, the question we ask with this study is will the NAF evolve to a National Forest Programme. To answer this questions we test: (i) can the Lithuanian NAF be recognized as a type of NFP, corresponding to the MCPFE concept and if yes, then which are the most important NAF features contributing to improved style of forest governance. Accepting, that the NAF process is recent phenomenon in national forest policy arena, we are also curious (ii) can the NAF benefit on specific aspects of Lithuanian forest policy, namely, increasing the participation and adaptiveness of national forestry. The second research question was solved assessing the impact of NAF on resolution of current forest policy conflicts and problems in Lithuania. Both questions were associated with methodological investigations of the NAF approaches, searching for country specific enhancements to forest policy planning and implementation, however, with potential international interest. Our research was performed in the parallel with the ongoing NAF process, aiming to evaluate the progress of Lithuanian government towards the true NFP. I.e. we accept that the final outcomes of the NAF may differ from the ones discussed in our study. Nevertheless, we also expect the findings may contribute to increasing the efficiency of forest governance and forest policy planning.

2. Integrated evaluation

In order to answer the research question we combine a normative evaluation with analytical evaluation (Rametsteiner 2002; Buttoud et al. 2004; Kleinschmit et al. 2016). The normative approach takes elements from the concept of NFP and compares how well these elements were implemented by the process of the National Agreement on Forests in Lithuania. Main principles are participation, holistic and intersectoral approach, iterative process with long-term commitment and capacity building (Table 1).

Table 1. MCPFE list of NFP key principles and how they were evaluated in this study (MCPFE 2003).

Principles	Explanation	Research methods
Participation	Representation of all interests and equal collaboration of all interest groups	NAF participant list analysis. Power analysis.
Holistic and inter-sectoral approach	Collaboration with other sectors, influenced by forestry and influencing forestry	NAF participant list analysis. NAF final text analysis. Interview data analysis.
Iterative process with long-term commitment	Long-term engagement of all interest groups, stakeholders and decision-makers	NAF final text analysis. Interview data analysis.
Capacity building	Further development of intellectual, human and institutional capacity of the forest sector	NAF final text analysis. Interview data analysis.

The analytical evaluation looks at the power that pushes specific interests. Our aim is to check the balance of power. A strongly uneven distribution of power would mean that bargaining within the participatory process will be dominated by specific interests and actors and will not result in a solution which is based on deliberative discourse (Kleinschmit et al. 2016). A second aim of the analytical evaluation is to look at the contribution of the process to solve specific conflicts. This involves examining how the process facilitates dialogue between competing interests and whether it creates conditions for deliberation rather than domination. The evaluation therefore considers how institutional design, stakeholder engagement, and procedural mechanisms influence the ability of the process to mediate and potentially resolve sectoral tensions (FAO 2003; Kleinschmit et al. 2016).

Basic elements of the analytical evaluation are interests, conflicts, regulation, and power. Following Krott (2005), these elements are interconnected: actors pursue specific interests, often leading to conflicts that are addressed or shaped through formal and informal regulatory frameworks. Power, in this context, determines which interests prevail and how regulations are interpreted or enforced within the policy process. In our study, Power was defined as a participant's ability to influence others through:

- Coercion: The ability to enforce change through threats or force.
- Incentives: Providing material or non-material benefits.
- Dominant Information: Controlling narratives via ideology or superior expertise.

3. Materials and methods

3.1. Data Collection and Processing

The empirical data for this research were collected concurrently with the NAF process through multiple methods:

- Direct Observation: Open sessions of NAF were observed and analyzed.
- Session Recordings Analysis: Publicly available recordings were reviewed.
- Document Analysis: Working documents from coordinating, sectoral and thematic groups and the final NAF text were examined (Table 2).

In-depth interviews were conducted in June 2022 with seven key NAF participants selected through expert judgment based on their active engagement and influence

Table 2. List of the analyzed documents.

Document name	Document date	Author (s)
Guidelines for NMA process	12.07.2021	NMA coordination group
NMA basic aim	14.06.2021	NMA coordination group
State forest policy sectoral group workbook	13.09.2021	State Forest Policy sectoral group
Climate change sectoral group workbook	13.09.2021	Climate Change sectoral group
Communities sectoral group workbook	13.09.2021	Communities sectoral group
Alternative climate change sectoral group workbook	13.09.2021	Alternative climate change sectoral group
Private forest owners sectoral group workbook	13.09.2021	Private forest owners sectoral group
State forest management sectoral group workbook	13.09.2021	State Forest Management sectoral group
Forestry workers sectoral group workbook	13.09.2021	Forestry workers sectoral group
Forestry contractors' sectoral group workbook	13.09.2021	Forestry contractors' sectoral group
Forest science and education sectoral group workbook	13.09.2021	Forest science and education sectoral group
Forest ecology and biodiversity sectoral group workbook	13.09.2021	Forest ecology and biodiversity sectoral group
Protected areas and landscape sectoral group workbook	13.09.2021	Protected areas and landscape sectoral group
Forest tourism and recreation sectoral group workbook	13.09.2021	Forest tourism and recreation sectoral group
Non-timber forest economics sectoral group workbook	13.09.2021	Non-timber forest economics sectoral group
Wood industries sectoral group workbook	13.09.2021	Wood industries sectoral group
Biomass energy sectoral group workbook	13.09.2021	Biomass energy sectoral group
Hunting sectoral group workbook	13.09.2021	Hunting sectoral group
Natural culture and cultural heritage sectoral group workbook	13.09.2021	Natural culture and cultural heritage sectoral group
NMA vision of forests	15.11.2021	NMA coordination group
Results of the work of the NMA Theme II Agreement group	28.02.2022	NMA Agreement group "Development of forest related science and education systems"
Results of the work of the NMA Theme III Agreement group	10.03.2022	NMA Agreement group "Relationship between public ownership and public interests"
Results of the work of the NMA Theme IV Agreement group	08.04.2022	NMA Agreement group "Openness of forest sector, improved public information and involvement into taking the decisions"
Results of the work of the NMA Theme V Agreement group	07.03.2022	NMA Agreement group "Forming stable and more resistant to climate change forests, increasing carbon sequestration and forest land area"
Results of the work of the NMA Theme VII Agreement group	07.03.2022	NMA Agreement group "Disclosure and enrichment of forest social and cultural values"
Results of the work of the NMA Theme IX Agreement group	23.02.2022	NMA Agreement group "Attractive working places in the forest sector, social security of employees and labour safety"
Project of the NMA final text	13.05.2022	NMA coordination group

Table 3. Information on the interview participants.

Interview date	Main participant's interests	Represented sectoral group
01.07.2022	Biodiversity	Forests and climate change
04.07.2022	Environmental protection – state	Protected areas and landscape
05.07.2022	Environmental protection – NGO	Forest ecology and biodiversity; Coordination group
14.07.2022	Private forest ownership	Private forest owners; Coordination group
14.07.2022	State forest policy	State forest policy; Coordination group
20.07.2022	Science and education	Coordination group
20.07.2022	State forest management	State forest management; Coordination group

(Table 3). The interviews, ranging from 1 to 2.5 hours, were conducted via MS Teams or in-person, recorded, and manually transcribed. The participants were assured of anonymity.

The semi-structured interview covered five key themes: (1) participants' roles and motivations in the NMS process; (2) the functioning and dynamics of different working groups; (3) perceptions of the process, including transparency and participation; (4) the substance of policy proposals and their links to existing legislation and research; and (5) future expectations and the relevance of adaptive forest management. This structure allowed for an in-depth exploration of both procedural and substantive aspects of stakeholder engagement.

To evaluate the NAF process and final agreement, we analyzed their alignment with the key principles of National Forest Programs (NFPs) as outlined in the MCPFE Vienna Resolution. These principles (see Table 1) were assessed using methods such as participant list analysis, text analysis of NAF documents, and interview responses.

3.2. Power Analysis

A power analysis was conducted based on an adapted methodology from Krott et al. (2014). The initial data for the power analysis was based on the data from the EU Horizon 2020 project ALTERFOR in 2017, when the power of the organizations was evaluated in relation to the Lithuanian forest sector. The evaluation was based on the expert interviews, document analysis and focus group discussions. For every actor, there was assigned a level of power from 1 (weak) to 3 (strong) (Juerges et al. 2017; Makrickienė et al. 2017). For the current study, we reviewed and updated the organizational power levels regarding the recent political changes.

To analyze the power behind every interest and every sectoral group, we applied the evaluation of the individual participant's power instead of using the power of

the whole organization. Each participant's power was rated on a scale of 1 to 3, based on the power of the represented organization and the participant's position in the organization (Table 4), and then the average power capacity was calculated per each interest and each sectoral group.

3.3. Conflict Impact Assessment

The initial list of forest policy conflicts and issues in Lithuania was developed as part of the EU Horizon 2020 project ALTERFOR during 2017–2018, using a combination of qualitative and desk-based research methods (Juerges et al. 2017). Semi-structured interviews were conducted with a diverse range of stakeholders, including government officials, representatives of non-governmental organizations, academic experts, and actors from the forestry sector. These interviews were complemented by focus group discussions, which enabled stakeholder interaction and helped uncover dynamic tensions and divergent perspectives on forest management policies. Additionally, a systematic review of relevant documents – including existing forestry policies, legislative texts, strategic planning documents, research publications, and media sources – was undertaken to ensure a comprehensive identification of conflict areas. For the present study, this list has been updated to reflect recent changes in the policy context.

To identify the relevant conflicts in forestry and the evaluate NAF's impact on existing forest policy conflicts, we used the data collected during the in-depth interviews with the NAF participants and the recordings of the NAF sessions. Impacts were classified as:

- Major softening: Conflict resolved.
- Moderate softening: Significant progress, widely supported.
- Minor softening: Some progress or agreement on potential solutions.
- Neutral: Conflict not addressed.

Table 4. Power of NAF participants, based on their position and the power of represented organization.

Position in the organization	Organization's power level		
	1 (weak)	2 (medium)	3 (strong)
Leading (Minister, head of the organization, top management)	1	2	3
Medium (Head of the division or sub-division, expert)	1	1	2
Lower power levels (Ordinary worker, ordinary participant of NGO)	1	1	1

- Minor sharpening: Recognized but with differing interpretations.
- Moderate sharpening: Positions became more polarized.
- Major sharpening: Fundamental ideological divisions remained.

For each conflict, we verified stakeholder participation across key NAF stages (Coordination Group, Kick-off, General Forum, Sectoral Groups, and Agreement Groups) and examined whether conflicts were addressed in NAF documents. A full conflict impact assessment is provided in Annex 3, covering 68 conflicts across 12 categories.

4. The Lithuanian case: Process of Lithuanian National Agreement on Forests

The Preparation phase started with setting up the Coordination group which agreed on the structure of processes and approved the main working principles. The Coordination group was created to include participants representing three major fields of interests in forests – economical, ecological, social, plus one group of politicians or policy builders. The Coordination group elaborated a map of interest groups, which included the names and contact information of persons, potentially interested in participation in the NAF processes. This map was used to choose the participants for the kick-off even, securing even distribution of the interests. The kick-off meeting initiated the discussions on the Fundamental Objectives for the future of Lithuanian forests which were further tuned and finally agreed by the Coordination group. This phase was implemented using the electronic meeting/conference tools due to Covid19 restrictions.

The Visioning phase was aimed to elaborate a long-term national forest vision considering the diversity of interests, future expectations and demands. Seventeen

sectoral groups (see Annex 1 for a full list of sectoral groups) to cover majority of forest-related interests. Sectoral groups met several times (mostly face-to-face) to create a workbook. Three tasks were allocated for sectoral groups: (i) to specify the needs of each sector to be covered in the document of NAF, (ii) to evaluate the Fundamental Objectives of NAF and specify which topics are of key importance for each sector, and (iii) to the National Vision for Forests as it is seen from the perspective of corresponding sector. Sectoral visions were introduced for representatives from all sectoral groups at the general forum on the vision, which started the elaboration of joint formulation of the vision. Final version of the National Vision for Forests was tuned by the editorial group based on workbooks by sectoral groups and provisions from the general forum on vision. Final version of the vision was communicated nine months since the start of NAF processes.

Analytical group of NAF at the Ministry of Environment carefully analysed the key long terms of sectors suggested in the workbooks, identified the most important topics for consideration, including the areas with potential friction among different interest groups and elaborated tentative list of topics for the agreement with associated questions on relevant topics. This list of topics and questions was introduced and further elaborated at the general forum on topics. Totally, 9 themes and 40 preliminary questions were elaborated for further consideration (see the full list of the themes of agreement in Annex 2).

Nine agreement groups, corresponding to the Themes of the Agreement were created. Usually, each sectoral group delegated 1–2 persons to the agreement group, however, with one vote per sectoral group. Total number of persons working in the agreement groups was 175. Each group had approximately 5–8 meetings to search for the agreement under specific topic. Six groups out of nine came to a final agreement, which was later incorporated into the draft text of National Agreement

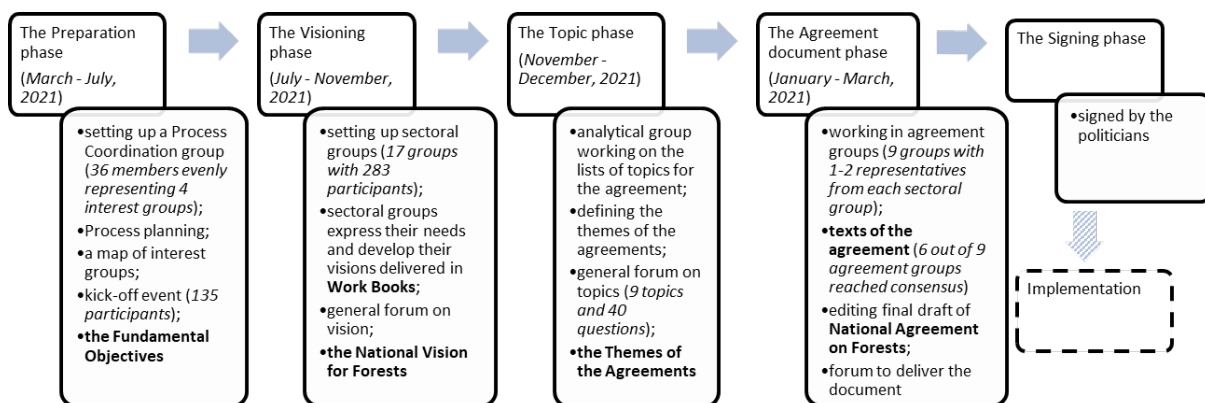


Fig. 1. The structure of Lithuanian National Agreement on Forests¹.

¹ <https://nacionalinismiskusitarimas.lt/wp-content/uploads/2022/06/Nacionalinis-susitarimas-del-misku-ateities.pdf>.

on Forest by the Ministry of Environment. In the case of no mutual agreement reached inside the agreement group (three cases), the corresponding topic was no further considered in creating the joint version of NAF. The final version of the NAF was then forwarded to the politicians for signing. Nevertheless, no legal document has been accepted as an outcome of the NAF process. As of the time of revising this manuscript (April 2025), no new version of the Forest Law of Lithuania has been adopted to incorporate the provisions agreed upon within the NAF agreement groups.

5. Results

Results are introduced in two following sub-chapters, each focusing on a specific research question.

5.1. Correspondence to the MCPFE principles

The evaluation of the NAF correspondence to the MCPFE principles is introduced according to the four key principles of a NFP, namely, the participation, holistic and inter-sectoral approach, iterative process with long-term commitment and the capacity building.

Participation

The main interests of stakeholders in Lithuanian forest sector were identified in 2017 during the EU Horizon 2020 project ALTERFOR (Juerges et al. 2017). The inter-

ests were grouped into four ecosystem service groups: provisioning ES, supporting ES, regulating ES and cultural ES. During the NAF process, almost all identified interests were represented by several sectoral groups. The only interest with no representation was water quality (Annex 4). Such situation in the representation of the same interest by several sectoral groups happened because of the character of the initial phase of the project, when the sectoral groups were forming. The members of different forest-related organizations and interests groups aimed to be present in more than one sectoral group for the maximal representation and control of the process. Thus, some of the interests were represented by the significantly bigger number of stakeholders, than others (Fig. 2).

Despite the differences in the number of respondents, the power resources of interests didn't differ that much. However, we could notice statistically significant differences in power resources between the interests and figure out the leaders and the outsiders (Fig. 3). The most powerful interests were nature protection (level of power 1.5), climate regulation (level of power 1.48) and forest management (level of power 1.41). The weakest interests were recreation (level of power 1.25), education and science (level of power 1.13) and workers' interests (level of power 1.0).

The distribution of power types were also different for each interest. So, all the strongest interests (nature protection, climate regulation and forest management) combined the highest levels of all three power types (Fig. 4). Most of the other interests could only use means of incentives and dominant information.

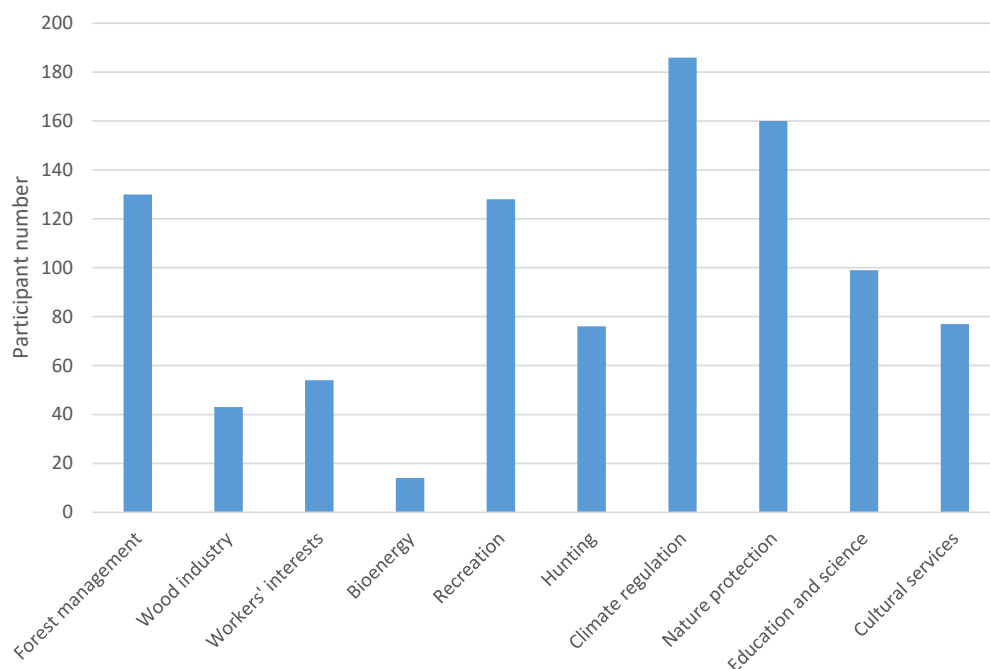


Fig. 2. Number of NAF participants representing the certain interests. One participant could represent several interests.

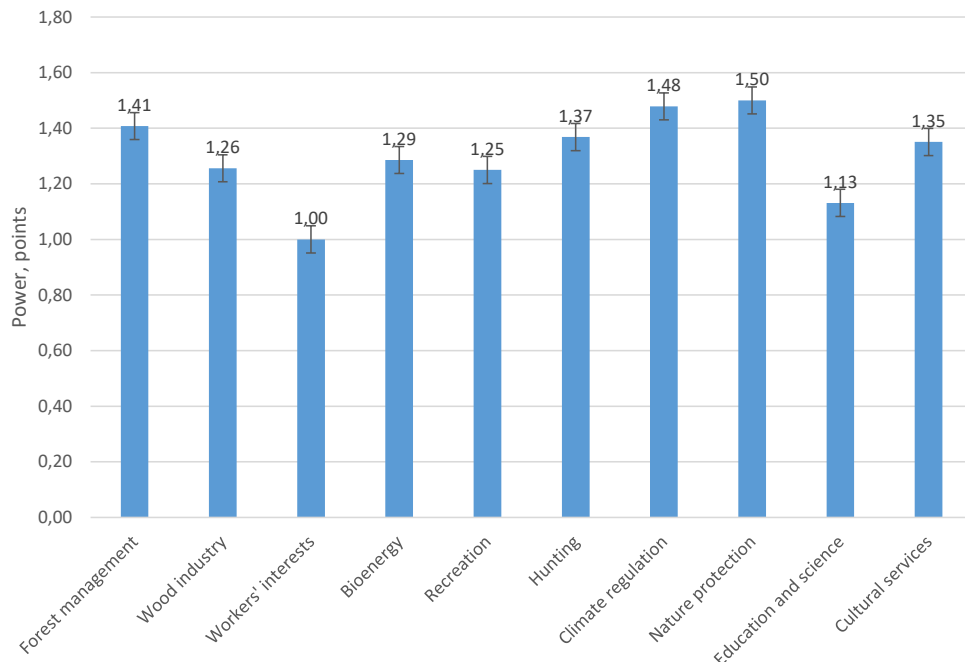


Fig. 3. Average power of interests. The y-error bars refer to the standard error.

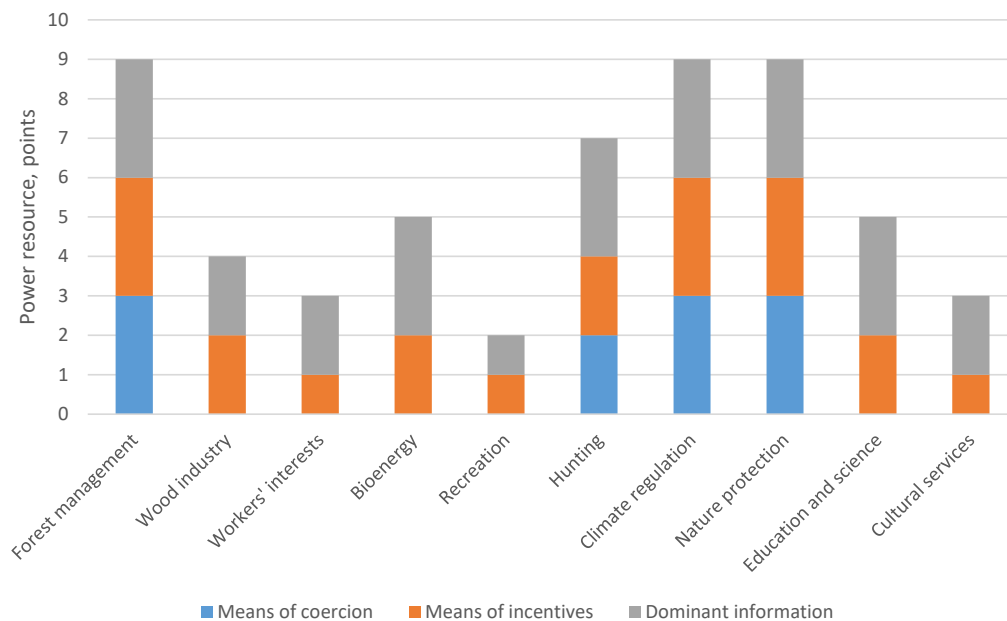


Fig. 4. Distribution of power types between interests.

An obvious disbalance in power resources could be noticed between the sectoral groups. Naturally, the most powerful sectoral group was state forest policy (level of power 2.23), followed by state forest managers (level of power 2.17), timber industry (level of power 2.0) and protected areas and landscape (level of power 2.0). The sources of biggest power of these sectoral groups are either national legislative power (e.g., for state forest policy), EU legislation (e.g., for protected areas and

landscape) or the direct impact on state forests (e.g., state forest managers). The weakest sectoral groups were forestry contractors, forest science and education and employees of forest sector, all having the level of power of 1.0 (Fig. 5). This imbalance not only limited the influence of weaker stakeholders but also intensified conflicts among the dominant groups, whose competing agendas hindered the achievement of broad consensus in the NAF process.

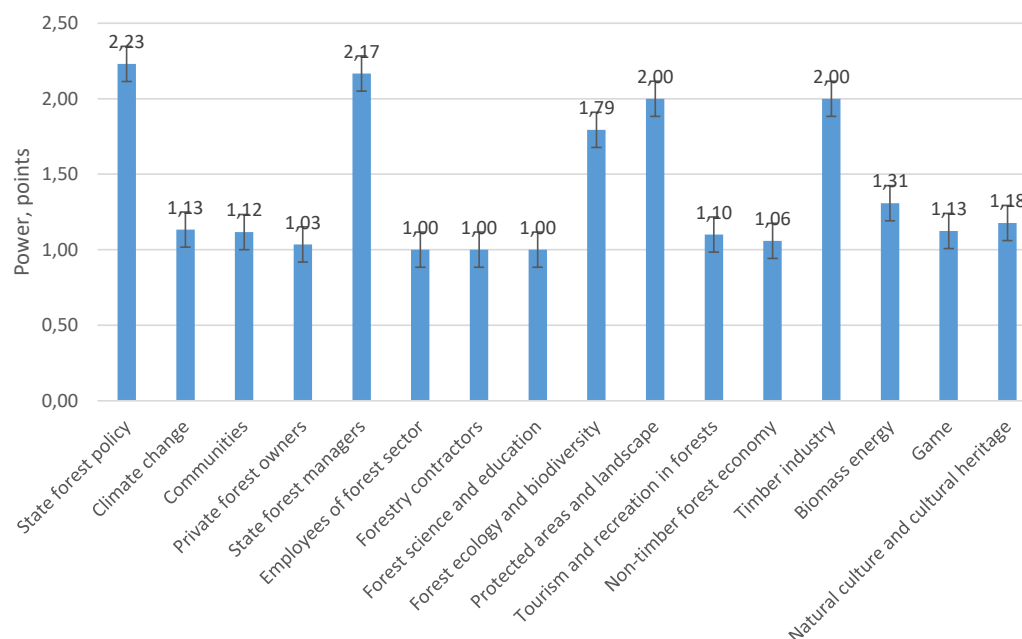


Fig. 5. Average power of sectoral groups.

Holistic and inter-sectoral approach

Evaluating the holistic approach during the process of NAF formulation, we could notice very similar responses of all the interview participants: the preparatory work was performed well enough, and the representatives of all the interests within the forest sector were participating in the NAF process. However, the representatives of concurrent sectors, for example, agriculture (which is the main concurrent to forestry sector in Lithuania) were not taking part in NAF.

The holistic approach was mentioned as one of the basic principles of the NAF, formulated as: “Holistic development of the entire forest sector, including the wood industry and biomass energy, promoting the economic development of the forest sector as a guarantor of the social and economic well-being of employees, ensuring the rational use and increase of forest resources, stable supply of high-quality raw wood of the highest technological value within the framework of sustainable forest management, with the aim of creating the highest possible added value in Lithuania, promoting the circular bioeconomy and green transformation” (NAF 2022). Moreover, in the vision it was mentioned, that forest sector should become open for the collaboration with other sectors and participation of all stakeholders in the decision-making process. However, despite there is a separate section about the openness of forest sector in the NAF final text, there is no discussion about the ways of ensuring collaboration with such important sectors as agriculture, wood industry, green energy, and others in NAF final text. Also, the possible impact of forest sector on those sectors and possible impact of those sectors on forest sector are not described in the final NAF text.

Probably, one of the biggest missing-outs in the NAF process and text is the absence of representatives of agricultural sector in the discussions and absence of this sector in the final NAF text. The agricultural sector in Lithuania is one of the main competitors of the forest sector in terms of land use (Juerges et al. 2017). Thus, the agreement to raise the share of forests in Lithuania from current 33% to 40% would increase the conflict between agricultural and forest sectors (see part 3.3 and Annex 3).

Iterative process with long-term commitment

The long-term commitment is mentioned in the NAF final text as one of its basic aims. It was decided that NAF should serve as a basis for the long-term clarity in all forest-related processes, aiming to improve the Lithuanian forest legal base and to ensure the stable, balanced, and long-term national forest policy. Most of the detailed agreements in the NAF text also could be evaluated as long-term commitments because they are related to the improvement of the current system and are aimed for the future actions. It is worth to mention one of the agreements: to create a competence center, which would be responsible for the forest-related information collection and analysis, publishing yearly reports and organizing yearly conferences on forest-related questions, collaborating with locals, private forest owners and other stakeholders. The competence center would be created using the capacities of already existing organizations, what would be a precondition for the closer collaboration between them.

Most of the interviewed NAF participants mentioned, that the single NAF process would not be a sufficient instrument for the substantial changes in Lithuanian forest policy. During the discussions, they mentioned the following options:

- Periodic repetitions of the NAF process, however, in a narrower round of participants. The selection of participants would depend on the most relevant forest-related questions and conflicts.
- Regular meetings of the constant expert group. The meetings would also be aimed to the solutions of the most relevant forest-related questions. The expert group would be formed in such way, that all the forest-related interests would be represented. This solution is like what was actually offered in the NAF text.

Despite the will for collaboration, there were also doubts about the future efficiency of the NAF process. Some respondents mentioned that the reached agreements are very ambitious and require significant budget, although it is not clear, if such budget is available for the implementation of all the agreements. In their opinion, without the exact planned budget “...this document does not mean anything and can be called simply a social experiment”.

Capacity building

Capacity building described in the NAF final text was also set as one of the basic goals and was oriented to the two main directions. The first direction was related to the forest science, its practical application and financing, funding the research and application of the new technologies. The second direction, which was mentioned, was increasing of the human potential in forest sector. That would include the improvement of the preparation of the forest sector specialists and ensuring the optimal number of them, ensuring the social warranties for these specialists, enabling the lifelong learning and raising the prestige of forest sector specialist's profession.

Raising the capacity of the forests themselves was mentioned in the NAF vision. It was decided to raise the share of Lithuanian forests up to 40% of the whole territory of the country, aiming to mitigate climate change, increase the biodiversity, develop the bioeconomy, and increase the regional development.

Additionally, in the text of the NAF it was mentioned, that for the achievement of the above-listed aims there is a necessity of raising the society's awareness about forest-related questions, what would also improve the public participation in decision-making process. Thus, there were made the agreement to ensure the better information collection and sharing with the public, creating the feedback possibility. Moreover, there was also an agreement to change the forest legal system in a way that would ensure more efficient informing of society and bigger level of public participation in forest management planning and other forest-related processes.

During the interviews, the respondents once more mentioned the necessity for the stronger expertise in the capacity building process. The respondents stressed the necessity of public participation on the local level, however, most of them mentioned, that the system-changing political decisions should be discussed on the expert level and approved by the scientists.

Solving conflicts

Many of current forest policy conflicts were addressed by the NAF, most often (43% of cases) leading to some reducing or softening of the issue (Fig. 6, Annex 3). There were 24% of cases with conflict increased with remaining 33% of cases with no impact or conflict not considered during the NAF. The stakeholders with specific interests to a specific issue were usually involved in all stages of the NAF, with exception to participation in the activities of Coordination Group, which had just limited representation and was responsible first of all for overall performance of the project. E.g., we found just 6% of the conflicts which were not fully represented (i.e. by both conflict parts) in the Agreement groups.

The categories with the most softened conflicts were the general group, which discussed the general forest policy aspects and principles with 5 conflicts softened out of 8 (63%), timber trade and processing – 4 out of 6 (67%), recreation group with 3 out of 6 (50%), hunting – 3 out of 6 (50%), work in forest – 3 out of 3 (100%), and the research and education – 3 out of 5 (60%). Nevertheless, we considered 3 conflicts (38%) assigned to general category as increased, these were the conflicts related to fundamental principles of “classical forestry” vs modern forestry concepts. Two-sided or neutral effects, including the cases when the conflict was not discussed during the NAF, were more commonly observed for nature conservation – 6 out of 14 (43%), state forest management – 3 out of 3 (100%), energy – 4 out of 6 (67%) and hunting – 3 out of 3 (50%) related issues. Should be noted, that there were more shares of conflict increasing than reducing for nature conservation issue group – 5 vs 3 out of 14 (36% and 21%, respectively). Equal or near equal shares of softening, sharpening and neutral effects on conflict resolution due to impacts of NAF were observed for private forest management, climate change and forest inventory and management planning categories.

Sixty conflicts (86%) were at least somehow addressed in the Work Books, developed by Sectoral Groups. This is higher than coverage of conflicts in final draft of NAF – 42 (60%). Just 24 conflicts (34%) were addressed in the text of Fundamental Objectives and 18 (26%) in the National Vision on Forests, which were, indeed, relatively short documents. Sectoral groups usually discussed and concluded on the conflicts, which were considered by our study as impacted in whatever way. E.g., there was just one reduced conflict (3%) and two (12%) increased conflicts beyond the scope of interests of Sectoral Groups. Majority of conflicts which remained unsolved or impacted in two-sided way, were still discussed at Sectoral Groups (70%), even though they were not included later into the Themes of Agreement (4%) and the NAF text (26%). Achieved final agreement was most frequently associated with the conflicts reduced, i.e. for this NAF impact type the forest policy issue was discussed at the Agreement Groups

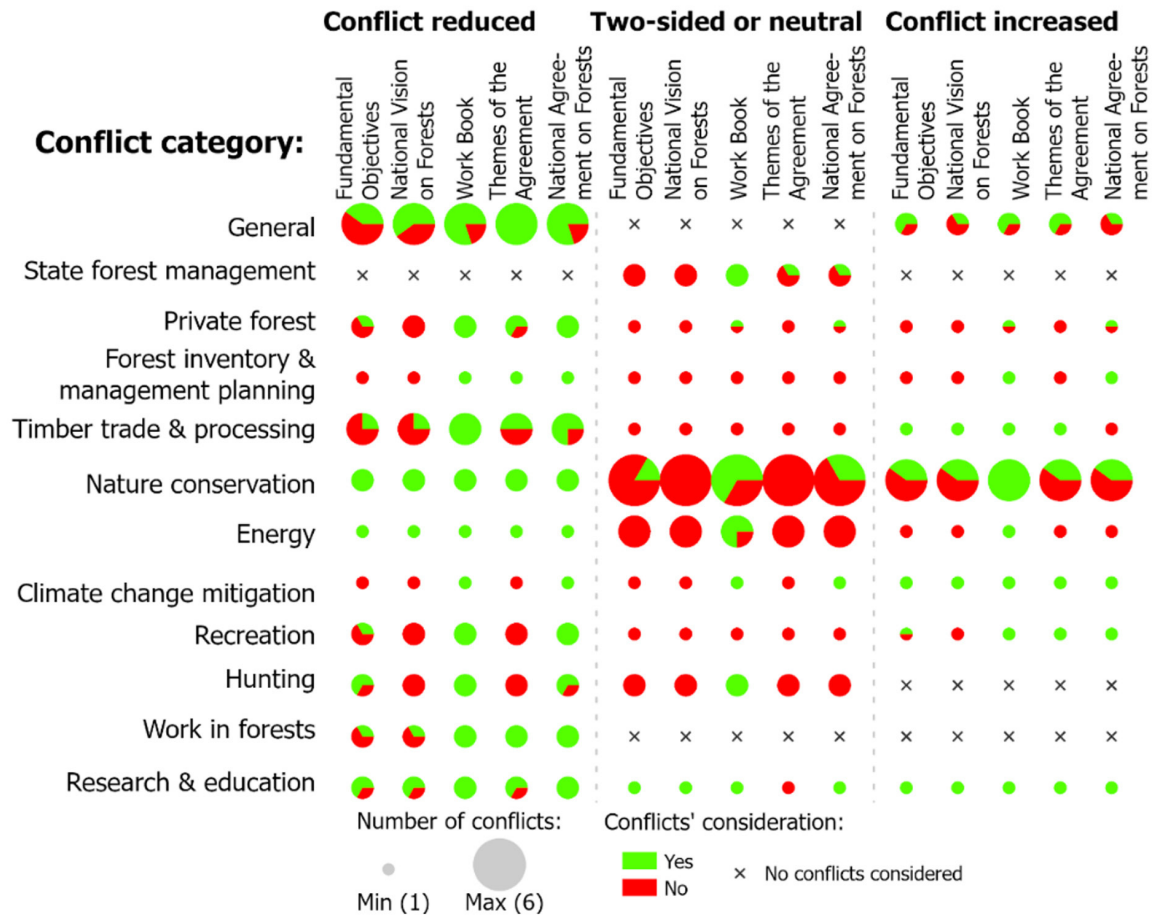


Fig. 6. The extent to which current forest policy conflicts are considered at different stages of the National Agreement on Forests.

and included into the NAF text in 27 cases out of 30 (90%). 47% of increased conflicts was discussed during earlier stages of the NAF process, however, no final agreement was achieved. The same tendency was also true for two-sided or neutral impacts. The achievement of final agreement and reducing of the forest policy conflicts did not seem to be related with the including issues into the discussions at early stages of the NAF process. E.g., near half (47%) of conflicts which were later both reduced or increased were discussed in the Fundamental Objectives, resulting, however, in different success rate of the final agreement achieved.

6. Discussion

Answering our first research question, we may conclude, that despite several flaws, NAF process in general corresponded to the MCPFE principles of the NFP. There were no missed or severely violated principles. However, the performance of the NAF process in different principles was not uniform (Table 3).

The weakest performance was noticed within the principle of Holistic and inter-sectoral approach. Mainly such evaluation was made due to the absence of the repre-

sentatives of the agro sector in the discussion. However, some inter-sectoral collaboration was present in the NAF due to the presence of the wood industry and bioenergy representatives. One of the explanations for this situation can be the fact that the representatives of agriculture themselves did not show the desire to actively participate in the NAF process, because forests are not in the center of their attention. For the wood industry and bioenergy, forests are a necessary condition for existence, which led to their active participation in the NAF.

The good evaluation for the Participation criteria is an important step for the Lithuanian forest sector on the way to more adaptive state forest governance. Up to now, Lithuanian forest governance was evaluated as a pure command-and control system (Makrickiene et al. 2019). Low public participation in forest-related decision-making processes was one of the weakest points of the Lithuanian forest governance system. The recent NAF process with more than 400 participants became the most abundant participatory process on the forests and forestry topic in recent years. The previous similar processes had much smaller number of participants and interests represented (Mizaras & Mizaraitė 2004; Kupstaitis 2012).

Although wide participation ensured the representation of almost all interests, related to the Lithuanian

Table 5. The evaluation of NAF performance in different MCPFE principles, based on the 3-level scale (poor, average, good).

Principles	Evaluation	Argumentation
Participation	Good	Almost all interests represented. Almost equal power behind the interests.
Holistic and inter-sectoral approach	Average	Holistic development of Lithuanian forest sector as a basic goal. Lack of deeper inter-sectoral collaboration.
Iterative process with long-term commitment	Good	Long-term commitment as one of the basic aims. Willingness of the participants for the constant future collaboration.
Capacity building	Good	Three main directions of capacity building described in the final NAF text. Will of the participants for the further discussion and political changes.

forest sector, the agreement in three of nine topics was not reached. The topics with no agreement reached – compatibility of various forest benefits and long-term balance, enhanced protection of biodiversity in forests and increasing economic value of the forests – indeed, were considered as most important in Lithuanian forestry and represented in the Agreement groups by stakeholders with fundamentally different interests, values, and competences. Still, such situation is rather common for the NFP processes in many countries. So, the NFP process in Sweden lasted since 2014 till 2018, and despite a negotiation period of several years some topics were finalized only with the help of an independent negotiator (Johansson 2016). An example of Germany also shows, that despite several attempts there were several topics, where there was no success in reaching the agreement. Instead of those agreements, there were issued several new strategies and programmes for the German forests (Weber 2018). Finnish experience in NFP creation is different from the two listed above, because it includes the strong regional context. NFPs in Finland were successfully adopted and updated since 1970s and were usually based on the Regional forest programmes (RFPs). However, the participation of the wide public in RFP process was not very efficient due to their bigger interest in small local issues, not in the country-wise forest-related questions (Webler et al. 2001). Thus, the latest Finnish NFP process was more similar to the regular NFP in other countries. The newest Finnish National Forest Strategy 2025 was prepared by the Ministry of agriculture and forests, collaborating with the different stakeholders (Katila 2017). In the Czech Republic, the development of the National Forest Programme faced notable conflicts among stakeholders. As Vančura (2004) highlights, tensions between state authorities, environmental groups, and private forest owners complicated efforts to define common priorities for sustainable forest management. The initial reliance on majority voting led to dissatisfaction among minority actors and eventually necessitated a shift toward a consensus-based approach. Similar to the Lithuanian NAF process, the Czech experience demonstrates that while broader participation enhances legitimacy, unresolved power imbalances and competing interests can significantly hinder the achievement of final agreements.

Such experience of other countries suggests, that the options, listed by the respondents during the interviews

(periodic NAF repetition in a narrower round of participants or regular meetings of the constant expert group) may be beneficial both for the finalizing of the non-finished topics of the current NAF process and for the future development of Lithuanian forest policy strategies and programmes. Also, the topics, where the agreements were not reached, can be developed through the separate detailed strategies within the narrower processes or with the help of experts.

The balance of power among stakeholders had a direct impact on the types of solutions that emerged from the NAF process. While the NAF succeeded in broadening participation and increasing the visibility of previously underrepresented actors, the overall distribution of influence remained uneven. As highlighted by Kleinschmit et al. (2016), such imbalances can limit the transformative potential of participatory processes, as dominant actors are more likely to steer discussions toward familiar or less disruptive outcomes. This dynamic was also evident in the NAF, where some of the more contentious issues remained unresolved. Thus, the outcomes reflect a mixture of negotiated compromises and restrained ambitions, shaped as much by the structure of participation as by the power relations within it. Important feature of Lithuanian NAF was the ambition to address majority of issues covering nearly all forestry aspects. Even though we evaluate the NAF performance in terms of holism and inter-sectoral approach as average, nearly all forest policy issues and conflicts, identified by an independent study (Juergeš et al. 2017) were at least somehow considered. There were no major effects of increasing and decreasing the conflicts due to the NAF observed. More, the conflicts were reduced, increased, or remained unchanged in relatively equal proportions, with some dominance of conflict softening, nevertheless. Most of forest policy conflicts in Lithuania could be associated with a “ideological struggle” between “the old” and “the new”, i.e. between the traditional focus on maximizing sustainable timber production and the increased attention on sustainability of environmental and social ecosystem services. Additionally, a struggle between maintaining stern regulations vs freedom in making forest management decisions, or command and control forest governance as opposed to more adaptive forms of governance (Makrickienė et al. 2019). This adds additional tasks for national forest programs if compared with European countries with longer democracies and focusing on balancing among different

forest ecosystem services. E.g. German, Swedish or Irish forest policy conflicts are largely between ecologic and economic interests (Welp & Hellström 1996). Debates between “classic” and “close to nature” forestry are of key importance in Italy (Ciancio & Nocentini 2011). I.e. we find forest policy issues in Lithuania more diverse and challenging, as there is a need to address additional tasks, like forest governance, ownership rights, the roles of society in forest management, which often are less relevant in other countries. The NAF as such could be allocated to a category of “the new” tools, in some sense, contradicting “the old” and more traditional principles of solving forest policy issues. Not surprisingly, there was no final version of NAF signed by political parties so far (i.e. nearly two years after initiation of the NAF). Nevertheless, the experience with participatory approaches in discussing key national forestry problems have impacted the top-level conflicts in forest policy arena, even though we have no evidences the conflict has disappeared. Should be noted, that, internationally, the initiatives with national forest programs are often still at very premature stage and it is very difficult to foresee the impacts they may have on solving major forest policy issues (Juerge et al. 2017).

The most difficult to reduce were the conflicts involving the relationships between classical forestry with focus on sustainable timber production and emerging power of environmental interests. In this aspect, the experiences of foreign NFPs were confirmed by Lithuanian NAF. E.g., the conflicts, which were considered as reduced and which belonged to the category “nature conservation”, considered the interests of both sides and usually were leading to identification of the conflict and accepting its existence, often supported by inevitability of implementation of some EU level policies. There is an increasing number of examples, that the biodiversity with increased management activity can react in both positive and negative ways, depending on operational forest management approaches (Biber et al. 2015, 2020). However, by default, the synergy between wood production and forest resource maintenance is difficult to achieve and requires advanced competences and management environments to be present. Lithuanian forestry is still very much dependent on command and control forest governance and foresters are trained to strictly obey guidelines by central authorities and weighty experts (Makrickienė et al. 2019). Such guidelines and opinions are usually based on “classical” forest management concepts (e.g., the normal forest theory shaping the understanding of sustainability of forest management, segregative forest management approaches to cover diversity of forest functions) (Mozgeris et al. 2021), so, difficult to fit with current forest management challenges. On the other hand, the profiles of “advocates” of greener forestry (as seen from the lists of NAF participants), who were usually opposing traditional forestry stakeholders in NAF processes, just marginally correlate with natural sciences, suggesting limited competences in the topics

under discussion. The differences in understanding the basic concepts of sustainable forest management and unwillingness to investigate alternative approaches by the NAF participants could be the key reason for moderate increasing the conflicts, related to fundamentals of modern forestry and assigned to general category. In general, the conflicts, which did not involve ideological struggle between “classical sustainable forest management” and “forest ecosystem sustainability aimed forest management” were usually softened.

Reducing the conflict was usually associated with achieved final version of the agreement, suggesting the NAF to be an efficient tool. Nevertheless, mentioning the conflict related issues in the final agreement reached has also resulted in increasing some specific conflicts. This could be explained by limited coverage of the conflict by the competences of the NAF participants, including level of participation (e.g., the agreement to increase forest land proportion up to 40% was easily agreed upon by all participants, but leaving weighty stakeholders from agricultural sector beyond the NAF). The importance of competences in NAF is also supported by the fact that majority of conflicts, identified independently from the NAF (86%), were somehow addressed in the work books developed by sectoral groups. Sectoral groups consisted of individuals, considered as experts in certain fields with diverse backgrounds but also increased responsibility on the future and overall success of a sector. This suggests the importance of quality rather than diversity of interests among the NAF participants.

The selection of interviewees may have influenced the results, as the sample mainly included participants representing the Coordination Group and key sectoral interests such as state forest management, environmental protection, private forest ownership, and science. While efforts were made to cover a broad range of perspectives, certain stakeholder groups, particularly those less active in the NAF process, may have been underrepresented. As a result, the findings primarily reflect the views of actors more centrally involved in the process and may not fully capture the positions of more peripheral stakeholders.

7. Conclusions

Summarizing, the Lithuanian NAF can be evaluated as a notable progress in improving the forest governance in the country, especially if comparing it with previous forest sector development programs. We qualify it as a type of National forest program according to the MCPFE concepts. The most notable achievement of the NAF was associated with raising the level of participation of stakeholders in forest policy decision making, thus, contributing to increased adaptability of Lithuanian forest governance. The power of other that weighty state actors in forest policy was increased, however, this has not nec-

essarily led to reducing the current forest policy conflicts in the country. The diversity of participating actors and interests made the NAF process too big to be controlled and finalized in time. The similar foreign experiences (Johansson 2016; Katila 2017; Weber 2018) make us assume that the big number of participants may often become an obstacle for reaching the common decision and final agreement. We accept that the NAF is at its very premature development yet and the primary results of the NAF need to be further monitored and revisited later for the evaluation of effects which may still be unseen. In this context, the integrated evaluation approach that combines normative and analytical dimensions – particularly by including the analysis of power – has proven valuable for understanding both the achievements and the limitations of the process. It allows for a more nuanced assessment that goes beyond procedural design and captures the underlying dynamics influencing decision-making outcomes. Further research could build on this by quantitatively linking actor interests and power relations with proposed policy solutions, which would help clarify how specific constellations of influence shape the direction and effectiveness of forest governance reforms.

References

- Balest, J., Hrib, M., Dobšínská, Z., ir Paletto, A., 2016: Analysis of the effective stakeholders' involvement in the development of National Forest Programmes in Europe. *International Forestry Review*, 18:13–28.
- Biber, P., Borges, J. G., Moshhammer, R., Barreiro, S., Botequim, B., Brodrechtová, Y. et al., 2015: How sensitive are ecosystem services in European forest landscapes to silvicultural treatment? *Forests*, 6:1666–1695.
- Biber, P., Felton, A., Nieuwenhuis, M., Lindbladh, M., Black, K., Bahýl, J. et al., 2020: Forest Biodiversity, Carbon Sequestration, and Wood Production: Modeling Synergies and Trade-Offs for Ten Forest Landscapes Across Europe. *Frontiers in Ecology and Evolution*, 8:e547696.
- Brukas, V., 2015: New World, Old Ideas – A Narrative of the Lithuanian Forestry Transition. *Journal of Environmental Policy & Planning*, 17:495–515.
- Buttoud, G., Solberg, B., Tikkanen, I., Pajari, B., 2004: The evaluation of forest policies and programmes. In: *EFI Proceedings*, No. 52. European Forest Institute, Joensuu, Finland, 271 p.
- Ciancio, O., Nocentini, S., 2011: Biodiversity conservation and systemic silviculture: Concepts and applications. *Plant Biosystems – An International Journal Dealing with All Aspects of Plant Biology*, 145:411–418.
- Elasser, P., 2002: Rules for participation and negotiation and their possible influence on the content of a National Forest Programme. *Forest Policy and Economics*, 4:291–300.
- Elsasser, P., 2007: Der Wald, der Brei, seine Köche und ihre Berater – wissenschaftliche Politikberatung für das “Nationale Waldprogramm Deutschland” zwischen Prozessanalyse, aktiver Mitgestaltung und Interessenvertretung. In: Krott, M., Suda, M. (eds.): *Macht Wissenschaft Politik? Erfahrungen wissenschaftlicher Beratung im Politikfeld Wald und Umwelt*. Wiesbaden: VS Verlag für Sozialwissenschaften, p. 80–106. (In German).
- Johansson, J., 2016: Participation and deliberation in Swedish forest governance: The process of initiating a National Forest Program. *Forest Policy and Economics*, 70:137–146.
- Katila, P., 2017: Forestry development priorities in Finnish national forest programmes. In: *The International Forestry Review*, Vol. 19, Supplement 1: Special Issue: Shifting global development discourses – Implications for forests and livelihoods. Commonwealth Forestry Association, p. 125–138.
- Kleinschmit, D., Böcher, M., Giessen, L., 2016: Forest policy analysis: Advancing the analytical approach. *Forest Policy and Economics*, 68:1–6.
- Krott, M., 2005: *Forest Policy Analysis*. Dordrecht, Springer, 323 p.
- Krott, M., Bader, A., Devkota, R., Maryudi, A., Giessen, L., Aurenhammer, H., 2014: Actor-centred power: The driving force in decentralised community based forest governance. *Forest Policy and Economics*, 49:34–42.
- Lazdinis, M., Carver, A., Schmithüsen, T., Tönnisson, K., Vilkriste, L., 2005: Forest-Sector Concerns in the Baltic States: Implications for an Expanded European Union. *Society & Natural Resources*, 18:839–848.
- Lovrić, M., Lovrić, N., Vuletić, D., Martinić, I., 2012: Development of the Concept and Implementation of National Forest Programs with Reference to Croatia. *South-east European Forestry*, 1849–0891:49–60.
- Makrickienė, E., Brukas, V., Brodrechtová, Y., Mozgeris, G., Sedmák, R., Šálka, J., 2019: From command-and-control to good forest governance: A critical interpretive analysis of Lithuania and Slovakia. *Forest Policy and Economics*, 109:102024.
- Mizaras, S., Mizaraitė, D., 2004: The analysis of Lithuanian Forest Programme in European Context. *Baltic Forestry*, 10:98–103.
- Mozgeris, G., Brukas, V., Stanislavaitis, A., Kavaliauskas, M., Palicinas, M., 2017: Owner mapping for forest scenario modelling – A Lithuanian case study. *Forest Policy and Economics*, 85:235–244.
- Mozgeris, G., Kazanavičiūtė, V., Juknelienė, D., 2021: Does Aiming for Long-Term Non-Decreasing Flow of Timber Secure Carbon Accumulation: A Lithuanian Forestry Case. *Sustainability*, 13:2778.
- Primmer, E., Kyllonen, S., 2006: Goals for public participation implied by sustainable development, and

- the preparatory process of the Finnish National Forest Programme. *Forest Policy and Economics*, 8:838–853.
- Rametsteiner, E., 2002: The role of governments in forest certification – A normative analysis based on new institutional economics theories. *Forest Policy and Economics*, 4:163–173.
- Schanz, H., 1999: National Forest Programmes – Substantial or Symbolic Co-ordination? In: Glueck, P., Oesten, G., Schanz, H., Volz, K.-R. (eds.): *Formulation and Implementation of National Forest Programmes*. European Forest Institute Proceedings, 30:237–252.
- Schanz, H., 2002: National forest programmes as discursive institutions. *Forest Policy and Economics*, 4:269–279.
- Stanislovaitis, A., Brukas, V., Kavaliauskas, M., Mozgeris, G., 2015: Forest owner is more than her goal: a qualitative typology of Lithuanian owners. *Scandinavian Journal of Forest Research*, 30:1–14.
- Vančura, K., 2004: National Forestry Programme of the Czech Republic in brief. *Journal of Forest Science*, 50:563–568.
- Voitleithner, J., 2002: The National Forest Programme in the light of Austria's law and political culture. *Forest Policy and Economics*, 4:313–322.
- Weber, N., 2018: Participation or involvement? Development of forest strategies on national and sub-national level in Germany. *Forest Policy and Economics*, 89:98–106.
- Webler, T., Tuler, S., Krueger, R., 2001: What is a good public participation process? Five perspectives from the public. *Environmental management*, 27:435–50.
- Winkel, G., Sotirov, P., 2011: An obituary for national forest programmes? Analyzing and learning from the strategic use of “new modes of governance” in Germany and Bulgaria. *Forest Policy and Economics*, 13:143–154.
- Other sources*
- FAO, 2003: National Forest Programme: Update 2002. Forestry Department, Food and Agriculture Organization of the United Nations. Rome.
- FAO and National Forest Programme Facility, 2006: Understanding national forest programmes. Rome.
- FAO, 2006: Global Forest Resource Assessment 2005 – Progress towards sustainable forest management. FAO Forestry Paper No. 147. Rome, FAO.
- Forest Europe, 2015: Sustainable Forest Management. Available at: <https://foresteurope.org/workstreams/sustainable-forest-management/>.
- Juerges, N., Arts, B., Masiero, M., Baskent, E. Z., Borges, J. D., Brodrechtova, Y. et al., 2017. ALTERFOR Deliverable 4.1. Report on actors driving forest management in selected European countries. 122 p. Available at <https://ciencia.ucp.pt/en/publications/report-on-actors-driving-fmms-in-selected-european-countries>.
- Kupstaitis, N., 2012: Patvirtinta Nacionalinė miškų ūkio sektoriaus plėtros 2012–2020 m. programa. (In Lithuanian).
- Lietuvos Respublikos Aplinkos Ministras. 2002. Įsakymas dėl Lietuvos miškų ūkio politikos ir jos įgyvendinimo strategijos patvirtinimo. Vilnius. (In Lithuanian).
- Lietuvos Respublikos Vyriausybė. 2012. Nutarimas dėl nacionalinės miškų ūkio sektoriaus plėtros 2012–2020 metų programos patvirtinimo. Vilnius. (In Lithuanian).
- Linstad, B. H., 2002: National Forest Policy in Norway – An Overview. In: *National Forest Programmes in a European Context*. EFI Proceedings No. 44:111–116.
- Makrickienė, E., Mozgeris, G., Pivoriūnas, N., Lynikas, M., Brukas, V., 2017: Actor analysis Lithuania – Case Study Telšiai. In: Deliverable 4.1 – Report on actors driving FMMs in selected European countries (ALTERFOR project report).
- Mayers, J., 2003: National forest programmes and similar beasts: current state of evolution, and future prospects for life. Draft for the Millennium Ecosystem Assessment. London, UK, IIED. Available at: www.iied.org/NR/forestry/documents/NFPs_and_similar_beasts.pdf.
- Ministerial Conference for Forest Protection in Europe (MCPFE), 2015: Madrid Ministerial Declaration “25 years together promoting Sustainable Forest Management in Europe”.
- Ministerial Conference for Forest Protection in Europe (MCPFE), 2002: MCPFE approach to national forest programmes in Europe. Liaison unit Vienna, Vienna, Austria.
- Ministerial Conference for Forest Protection in Europe (MCPFE), 2003: Vienna Declaration and Vienna Resolutions.
- National Agreement on Forests (NAF), 2022: Project (In press).
- Non-legally Binding Instrument on Sustainable Forest Management of all Types of Forests, 2007: GA/Res/62/98. Available at: http://www.un.org/esa/forests/pdf/session_documents/unff7/UNFF7_NLBI_draft.pdf.
- Seimas of the Republic of Lithuania, 2020: Nutarimas dėl aštuonioliktosios Lietuvos Respublikos Vyriausybės programos. Vilnius. (In Lithuanian).
- Shannon, M. A., 1999: Moving from the limits and problems of rational planning toward a collaborative and participatory planning approach. *EFI Proceedings* 30, Vol I.
- State forest service of Lithuania, 2021: Lithuanian forest statistics. Available at: <https://amvmt.lrv.lt/lt/atviriduomenys-1/misku-statistikos-leidiniai/misku-ukio-statistika/2021-m-1>.

- United Nations, 1992: Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests. In: Report of United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3–14 June 1992, Annex III. New York. Available at: www.un.org/documents/ga/conf151/aconf15126-annex3.htm.
- Welp, M., Hellström, E., 1996: Environmental Forest Conflicts in Germany – from National to International Concern. European Forest Institute, 11, p. 62.
- Žilytė, D., 2018: Seimo narė Virginija Vingrienė – apie miškų reformą ir pokyčių būtinumą. Available at: <http://miskininkas.eu/seimo-nare-virginija-vingriene-apie-misku-reforma-ir-pokyciu-butinuma/>. (In Lithuanian).

Annexes

Annex 1. The list of sectorial groups of NAF.

No.	Title	Represented institutions
1.	State forest policy	The Seimas (parliament), the Government, ministries and other state institutions, responsible for building and implementing forest policy, including agroforestry and other trans-sectoral areas, scientists
2.	Climate change	Institutions working in the field climate change, State forest service, scientists
3.	Communities	Organizations representing communities (unions, associations), network of local action groups, other community organizations linked to forests, scientists
4.	Municipalities	Municipalities and associations, scientists
5.	Private forest owners	Organizations, representing private forest and land owners and forest investors, scientists
6.	State forest managers	State company State forest enterprise, defence structures and other state forest managers, scientists
7.	Employees of forest sector	Professional unions, Lithuanian union of foresters, other organizations, representing the interests of the whole forest sector (including timber industry and other forest services), scientists
8.	Forestry contractors	Representatives of companies and organizations providing forestry related services, including timber transportation, scientists
9.	Forest science and education	Research institutions, institutions qualifying forestry specialists, consulting companies and organizations, representatives of forestry pedagogics
10.	Forest ecology and biodiversity	Research institutions active in the area, environmental non-governmental organizations
11.	Protected areas and landscape	State service of protected areas, society of geographers, other institutions and organizations active in the area of protected areas and/or landscape management, scientists
12.	Tourism and recreation in forests	Institutions promoting tourism, recreation in forests, health maintenance, mushroom and berry pickers, and other activities involving visiting the forest, scientists
13.	Non-timber forest economy	Institutions representing commercial non-timber forest users, including bee-keeping, scientists
14.	Timber industry	Timber industry companies, organizations, representing the interests of timber industry, scientists
15.	Biomass energy	Producers of biofuels and heat, organizations, representing their interests, scientists
16.	Game	Hunter unions and other organizations, active in the area, scientists
17.	Natural culture and cultural heritage	Relevant organizations, active in the area of ethnic culture, cultural heritage, art and related to the forest

Annex 2. The list of the themes of NAF.

No.	Topic/agreement group	Identification whether the agreement was achieved or not
Theme I	Compatibility of various forest benefits and long-term balance	Not achieved
Theme II	Development of forest related science and education systems	Achieved
Theme III	Relationship between public ownership and public interests	Achieved
Theme IV	Openness of forest sector, improved public information and involvement into taking the decisions	Achieved
Theme V	Forming stable and more resistant to climate change forests, increasing carbon sequestration and forest land area	Achieved
Theme VI	Enhanced protection of biodiversity in forests	Not achieved
Theme VII	Disclosure and enrichment of forest social and cultural values	Achieved
Theme VIII	Increasing economic value of the forests	Not achieved
Theme IX	Attractive working places in the forest sector, social security of employees and labour safety	Achieved

Annex 3. The role of the National Agreement on Forests on the conflicts and issues in Lithuanian forest policy.

Conflict category										
Conflict										
Reflected in										
FO ¹	NVF	WB	TA	NAF	CG	KOM	GFT	SG	AG	Impacts of NAF ²
GENERAL										
Forest policy arena is strongly dominated by state forestry institutions, especially by the policy-formulating Ministry of Environment and the state company State Forest Enterprise vs the influence of other actors (private forestry, timber industry, municipalities, wide public, NGOs, etc.)										
y ³	y	y	y	y	y	y	y	y	y	–
Forestry administration under jurisdiction of Ministry of Environment vs economic and rural development aspect of forest sector										
n	n	y	y	y	n	y	y	y	y	–
Command and control forest management vs freedom in practically all forestry aspects										
n	n	n	y	n	y	y	y	y	y	--
The theory of normal forest vs modern concepts of “sustainable forestry”										
n	n	n	n	n	y	y	y	y	y	++
“Greening” of forestry through segregative forest management vs integrative forest management										
y	n	y	y	n	y	y	y	y	y	++
Deliberation between conservation, economic, and recreational interests/meaning of “sustainable forestry”										
y	y	y	y	y	y	y	y	y	y	++
Society vs Forestry: prevailing public opinion is that private foresters are just cutting while state foresters are hunting or stealing. On the other hand, professional foresters consider the public as being completely incompetent in any forestry issue and thus to be eliminated from any related discussion										
y	y	y	y	y	y	y	y	y	y	–
Forestry vs other land uses, e.g. land for housing, industries, mining, water reservoirs										
n	y	y	y	y	n	y	y	y	y	–
STATE FOREST MANAGEMENT										
State company State Forest Enterprise being legally self-subsistent and economically independent entities vs the requirements to provide conservation, recreational, social services										
n	n	y	n	n	y	y	y	y	y	0
Aftermath of state forest management reform: pros vs cons										
n	n	y	y	y	y	y	y	y	y	+–
Using services of contractors to perform forest harvesting and transportation vs utilization of own resources of state company State Forest Enterprise										
n	n	y	n	n	y	y	y	y	y	0
PRIVATE FOREST MANAGEMENT										
Requirements for forest management transferred from state to private forestry, disregarding totally different management conditions and owners’ needs										
y	n	y	y	y	y	y	y	y	y	--
Fragmentation of small-scale forest holdings vs effective forestry, technological innovations										
n	n	y	n	y	y	y	y	y	y	0
Mentality of private forest owners-based thinking on “forest as livelihood” vs “forest as object of safe investment”										
n	n	n	n	n	y	y	y	y	y	0
Treating private forest owners as a potential threat to the forests by forestry authorities										
n	n	y	y	y	y	y	y	y	y	–
Potential conflicts between two associations representing the interests of private forest owners										
n	n	n	n	n	n	n	n	n	n	+
Restrictions (some) to foreign investors to purchase land in Lithuania										
n	n	y	n	y	n	y	y	y	y	–
Inexperience and weakness of small private forest owners vs aggressiveness of forest businessmen in their business relationships										
n	n	y	n	y	y	y	y	y	y	+
FOREST INVENTORY AND MANAGEMENT PLANNING										
Dominating role of State Forest Service in all forest inventory and management planning aspects and neglecting opinion as well as the actual needs of other actors										
n	n	n	n	n	n	n	n	n	n	0
Mandatory requirements of forest management plan and strictly regulated inventory and planning principles vs actual needs and specifications for forest management planning										
n	n	y	n	y	y	y	y	y	y	+
Classical but old-fashioned forest inventory and management planning solutions vs effective, open, economically sound and based on current technologies approaches										
n	n	y	y	y	y	y	y	y	y	–
TIMBER TRADE AND PROCESSING										
Influence of “third parties” in round timber trade, including non-transparent round timber auctioning vs direct contacts between forest owners/managers and timber processing industries										
n	n	n	n	n	n	y	y	y	y	0
Lacking transparency in timber scaling, excessive timber re-measurements, ineffective timber marking										
n	n	y	n	y	n	y	y	y	y	–

Conflict category										
Conflict										
Reflected in					Represented by relevant stakeholders in					Impacts of NAF ²
FO ¹	NVF	WB	TA	NAF	CG	KOM	GFT	SG	AG	
Interests of Lithuanian timber industries vs interests of state company State Forest Enterprise										
n	n	y	n	y	y	y	y	y	y	–
5% additional tax on harvested timber for private forests, assuming that the tax was supposed for state forest managers for use of state-owned forests										
n	n	y	y	y	y	y	y	y	y	–
Interest of timber industries vs timber round-wood exports										
y	y	y	y	n	y	y	y	y	y	–
Growth of Lithuanian timber industry with increasing demands for materials vs availability of forest resources for timber industry										
y	y	y	y	n	y	y	y	y	y	+
NATURE CONSERVATION										
Chaotic system of protected areas and environmental restrictions vs clear legal competences and forest management approaches										
y	y	y	y	n	y	y	y	y	y	++
Reserve status to allow natural development of forests vs. sustainable harvesting										
y	y	y	y	y	y	y	y	y	y	–
Implementation of Natura-2000, woodland key habitats, resulting in restrictions of commercial forests vs real environmental values										
y	y	y	y	n	y	y	y	y	y	++
Nature conservation measures vs non-available or not functioning compensation mechanisms for forest owners/managers to implement such measures.										
y	y	y	y	y	y	y	y	y	y	–
Urbanization development vs restrictions in protected areas (as a result of land reform)										
n	n	n	n	n	n	y	y	y	y	0
ENGOs acting as consultancy companies and orientation on well financed environmental projects or public shows vs real nature conservation interests										
n	n	y	n	n	y	y	y	y	y	+
Avoidance of non-native tree species vs economic considerations										
n	n	y	n	y	y	y	y	y	y	+
Forest conversion towards more natural ecosystem types vs plantation of economically most beneficial tree species										
n	n	y	n	y	y	y	y	y	y	+–
Requirements to increase the share of non-clear cutting vs validated and effective forestry practices										
n	n	y	n	y	y	y	y	y	y	+
Deadwood share, requirements to leave biodiversity trees when harvesting vs real environmental values										
n	n	y	n	n	y	y	y	y	y	0
Wildlife protection measures vs forest management restrictions vs real values for wildlife										
y	n	y	n	y	y	y	y	y	y	0
As the forests in protected areas are not managed by the administrations of protected areas, there are conflicts with forest owners/managers due to differences in interpretation of forest management objectives and implementation of forest management models										
n	n	n	n	n	y	y	y	y	y	0
Diversity of interests, first of all commercial ones, in protected areas vs nature conservation										
y	y	y	y	y	y	y	y	y	y	–
Aiming to increase the amount of oak forests vs actual potential and economic considerations										
n	n	y	n	n	y	y	y	y	y	0
ENERGY										
Material vs. energetic wood use										
y	y	y	y	y	y	y	y	y	y	–
Lack of subsidization of timber production for energy										
n	n	y	n	n	y	y	y	y	y	0
Intensification of harvesting measures vs nature conservation										
n	n	y	n	n	y	y	y	y	y	+
Regulative manner in state forests in production of energetic wood without cost-benefit evaluation and optimization of technologies										
n	n	y	n	n	y	y	y	y	y	0
Over-optimistic expectations regarding energetic wood availability vs realistic supply opportunities										
n	n	y	n	n	y	y	y	y	y	0
Pipeline construction through forests										
n	n	n	n	n	n	n	n	n	n	0
CLIMATE CHANGE MITIGATION										
Increasing the afforestation vs agriculture										
y	y	y	y	y	y	y	y	y	y	+++
Financial compensation for owner for climate change mitigation services of forests										
n	n	y	n	y	y	y	y	y	y	+–

Conflict category										
Conflict										
Reflected in					Represented by relevant stakeholders in					Impacts of NAF ²
FO ¹	NVF	WB	TA	NAF	CG	KOM	GFT	SG	AG	
Exporting round wood vs processed timber (in terms of carbon accounting)										
n	n	y	n	y	y	y	y	y	y	–
RECREATION										
Increased/changed interests of recreational users vs. conservation and use										
y	n	y	y	y	y	y	y	y	y	+
Scenery and landscapes vs. economic interests										
n	n	y	n	y	y	y	y	y	y	–
Accessibility to recreational facilities vs private property interests										
n	n	y	y	y	y	y	y	y	y	+
Undeveloped waterways and river- and lake port infrastructure to increase the tourism potential										
n	n	n	n	n	n	n	n	n	n	0
Private land ownership and non-conventional for recreational areas functions vs accessibility of recreational areas for public										
n	n	y	n	y	n	y	y	y	y	–
Undeveloped or even lacking tourism marketing vs tourism potential.										
y	n	y	n	y	n	y	y	y	y	–
HUNTING										
Browsing damages vs economic and ecological interests										
y	n	y	n	y	y	y	y	y	y	–
Damages for farmers vs game abundance										
y	n	y	n	n	n	y	y	y	y	–
Decreasing population of wild boar due to African swine fever virus vs game resource availability and preferences of hunters										
n	n	y	n	n	y	y	y	y	y	0
Interests of hunting clubs vs private land owners										
n	n	y	n	n	y	y	y	y	y	0
Game animals belong to the state vs private land ownership. This leads into the conflict while developing the hunting management plans										
n	n	y	n	n	y	y	y	y	y	0
Permanent discussion on hunting laws, frequently changing legal acts regulating the hunting										
n	n	y	n	y	y	y	y	y	y	–
WORK IN FORESTS										
Harder working conditions in forest comparing to other industries (leading to the lack of employees)										
y	n	y	y	y	y	y	y	y	y	–
Labor productivity vs job safety of forest workers										
n	n	y	y	y	y	y	y	y	y	–
Low minimum wages for forest workers vs increasing living costs and temptation for emigration										
n	y	y	y	y	y	y	y	y	y	–
RESEARCH AND EDUCATION										
Limited resources vs unbalanced research personnel and institutions										
y	y	y	y	y	y	y	y	y	y	+
Never ending discussion on optimization of higher education in Lithuania, including reorganizations of redundant universities and overlapping study programs										
y	y	y	y	y	y	y	y	y	y	–
System of state financing for university education based on “study baskets” – overconcentration of forestry students at college vs university, reduced motivation and potential of university students										
y	y	y	y	y	y	y	y	y	y	–
Undeveloped studies and research in timber trade and wood science										
n	n	y	n	y	y	y	y	y	y	–
Low salaries and motivation of education and research staff										
y	y	y	n	y	y	y	y	y	y	0

Notes: ¹abbreviations used: FO – the Fundamental Objectives, WB – working books; NVF – the National Vision on Forests, TA – the Themes of the Agreement, NAF – the National Agreement on Forests, CG – Coordination group, KOE – kick-off event, GFT – General Forum on Topics, SG – Sectoral Groups, AG – Agreement Group. ²interpretation of the NAF impacts on conflicts: – – – major softening, – – moderate softening, – minor softening, 0 neutral, + minor sharpening, ++ moderate sharpening, +++ major sharpening of the conflict. If + and – used simultaneously, there were both sharpening and softening impacts observed. ³y – yes, n – no.

Annex 4. Interests and their representation by the sectoral groups.

Interest	Represented by sectoral groups
Provision ES	
Wood provision	State forest policy, Private forest owners, State forest managers, Employees of forest sector, Forestry contractors, Forest science and education, Timber industry, Biomass energy
Game provision	Communities, Employees of forest sector, Forest science and education, Non-timber forest economy, Game
Mushrooms	Communities, Forest science and education, Tourism and recreation in forests, Non-timber forest economy, Natural culture and cultural heritage
Berries	Communities, Forest science and education, Tourism and recreation in forests, Non-timber forest economy, Natural culture and cultural heritage
Medical plants	Forest science and education, Tourism and recreation in forests, Non-timber forest economy, Natural culture and cultural heritage
Supporting ES	
Biodiversity	State forest policy, State forest managers, Forest science and education, Forest ecology and biodiversity, Protected areas and landscape, Tourism and recreation in forests, Non-timber forest economy, Game
Habitats	State forest policy, State forest managers, Employees of forest sector, Forest science and education, Forest ecology and biodiversity, Protected areas and landscape, Tourism and recreation in forests, Non-timber forest economy, Game
Regulating ES	
Carbon sequestration	State forest policy, Climate change, Forest science and education, Forest ecology and biodiversity, Protected areas and landscape
Climate regulation	State forest policy, Climate change, Forest science and education, Forest ecology and biodiversity, Protected areas and landscape
Water quality	Not represented
Pest control	State forest policy, Private forest owners, State forest managers, Employees of forest sector, Forest science and education, Forest ecology and biodiversity, Tourism and recreation in forests, Non-timber forest economy, Timber industry, Biomass energy
Cultural ES	
Outdoor recreation	State forest policy, Communities, Municipalities, State forest managers, Employees of forest sector, Forest science and education, Protected areas and landscape, Tourism and recreation in forests, Non-timber forest economy, Natural culture and cultural heritage
Aesthetics	Communities, Municipalities, Private forest owners, Forest science and education, Protected areas and landscape, Tourism and recreation in forests, Non-timber forest economy, Game, Natural culture and cultural heritage
Tourism	Communities, Municipalities, Forest science and education, Protected areas and landscape, Tourism and recreation in forests, Non-timber forest economy, Natural culture and cultural heritage