

Gender analysis of IUFRO

Identifying opportunities to enhance gender equality in the global forest research network.



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Preface

Forestry, science, and academic research are all fields that have traditionally been dominated by men and so it is not surprising that forest research around the world remains generally dominated by men. As the world's lead organization for coordinating international forestry research, IUFRO recognizes the importance of addressing this imbalance and promoting gender equality. The IUFRO Task Force on Gender Equality was established in 2019 at the initiative of research group 6.08, Gender and Forestry, to explain and promote gender equality as it relates to forests and to the scientific and research practices of IUFRO. The Task Force brings together 35 researchers and consultants, of whom a significant majority are women, representing 26 countries and most IUFRO Divisions.

The Task Force undertook a variety of activities, including:

1. Mapping the proportions of women and men in various roles within IUFRO's organizational structure and participation in the last three IUFRO World Congresses;
2. Surveying IUFRO officeholders and meeting participants about their perceptions of equality within the organization and the network;
3. Interviewing IUFRO leaders about their perceptions of achievements and challenges of the organization in addressing gender equality and participation issues;
4. Developing policy and process recommendations to support IUFRO's commitment to gender equality;
5. Preparing case studies of gender equality initiatives in the forest sector around the world;
6. Preparing a Massive On-line Open Course on Gender equality in forest-related sectors (ForGEDI) that is now freely available to students and professionals around the world; and
7. Maintaining an ongoing dialogue with IUFRO administrators and across the network about gender equality within the organization.

This report presents original research undertaken by members of the Task Force, together with a review of published literature relating to gender and diversity in the forestry sector and in organizations similar to those found in the sector (activities 1 to 3). Using this information, the Task Force presents a series of recommendations to enhance gender equality in IUFRO as both an organization and a network (activity 4). Activities 5 and 6 are not included in this report but are available on-line. The original workplan for the Task Force also included planning for a sub-theme on "Gender Equality in Forestry" at the 2024 IUFRO Congress. Although this was not included in the final program, the Congress will include sub-plenaries and technical sessions addressing gender and diversity in the forest sector.

We make this report available to the leadership and management of IUFRO as an organisation and to the members of IUFRO as a network. We hope that the information and research contained in this report, and in the case studies and the ForGEDI MOOC, will help advance gender equality and diversity in forestry research, both within IUFRO and in other institutions that promote sustainable management of forests wherever they may be.

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Summary

IUFRO is the leading global network for forest science cooperation and has an influential role in addressing a multiplicity of environmental, economic, and social issues related to forests and forest-related scientific cooperation worldwide. It is increasingly recognised that gender equality and inclusion matter for the production and mobilization of knowledge, for achieving sustainability goals in the forest sector, and for the perceived relevance of IUFRO from both a societal perspective and within the research community. Recognising this situation, IUFRO has undertaken a variety of actions to promote gender equality and diversity in the organization and throughout the network. This has included the establishment in 2019 of the IUFRO Task Force on Gender Equality to analyse and promote gender equality as it relates to the management of forests, to the economic importance of forest production, and to IUFRO as an organization and a network of researchers. This report presents the work of the Task Force, particularly in documenting the gender balance within IUFRO, identifying factors that contribute to inequalities, noting existing initiatives to address inequalities, and making recommendations for future actions to enhance gender equality and inclusion.

It is important to recognize that IUFRO is both a network and an organization, and to distinguish between the types of action that can be taken in each case. As a network, or indeed a network of networks, IUFRO consists of about 630 organizations in 125 countries, representing about 15,000 individual researchers. Each of these organizations determines its own policies and programs, based on the social, economic, and environmental context within which it operates. Although IUFRO cannot impose gender equality on these independent organizations, it has a significant role in setting standards and goals for organizations and researchers engaged in forest research. IUFRO is also an organization that employs staff, establishes programs, allocates financial support, ensures effective communications across the network, and hosts congresses and research meetings. It also appoints officeholders to coordinate the network and promote collaborative research. As an organization, IUFRO has the capacity to influence forest-related research in ways that IUFRO as a network does not have.

This report presents original research undertaken by Task Force members to analyse the gender balance within IUFRO using a variety of indicators. Mapping the proportions of women at various levels within the IUFRO organizational structure quantifies the gender balance and informs evaluation of the effectiveness of various initiatives to promote equality. Surveying participants at IUFRO conferences provides qualitative data on how members perceive the gender balance and the possible impacts of imbalance upon their work and career opportunities as researchers. Results of interviews with IUFRO leadership provide an appreciation of the visions and objectives for both the organization and the network, along with the challenges in achieving these.

Overall, the work of the Task Force confirms a general perception that IUFRO, as both an organization and a network, is dominated by men. However, analysis reveals important nuances in this perception and contributes to understanding the reasons for this dominance and to identifying actions that can help promote equality and diversity. Among the results presented in this report, we choose to highlight the following (respecting the sequence in which they are found in the report):

- Governance of IUFRO is dominated by men, who comprise significant majorities in the International Council (both representatives and alternates), the Voting Board, and the Coordinators of Research Groups/Working Parties, Task Forces and Divisions (Section 3.1).
- Approximately one-third of officeholders in Research Groups and Working Parties (Coordinators and their deputies) are women, but this proportion is increasing and Divisions 6 and 9 may be considered as gender balanced. (Section 3.1.7 & 3.1.8)

- Beginning with the 2024 IUFRO Congress, all Divisions and many research groups will be led by two co-coordinators, one of whom should identify as an underrepresented group (e.g., either women or someone from the global south). (Section 3.1.7)
- 243 men have received one of IUFRO's three-highest awards (Honorary Membership, Distinguished Service, and Scientific Achievement), compared to only 15 women, representing only 6 % of recipients. (Section 3.1.4)
- The Scientist Assistance Program, supporting researchers participating in IUFRO congresses and other events, includes gender and geography among selection criteria. As a result, more women than men receive funding (although they comprise only a third of applicants) and the program enhances geographic balance. (Section 3.1.5)
- When surveyed in 2020, two out of three (68%) of the responding officeholders considered it important to improve gender equality within IUFRO. Among conference participants in 2022, 83% of the respondents considered it important. (Section 4.1.2 & 4.1.3)
- Among officeholders, half of the women and half of the men responded that they had never experienced gender inequality as a constraint to their IUFRO participation. (Section 4.1.2)
- The participation of women in IUFRO World Congresses has risen from a fifth in 2010 to a third in 2019, although men continue to occupy 80% of positions on the Congress Scientific Committees. (Section 4.2)
- Interviewees highlighted openness and flexibility as characteristics of the network, but one interviewee also stated that *"IUFRO has started as a white male European network, it is sort of repeating itself"*. This demonstrates the importance of understanding how this "repetition" occurs and the role of informal networks and social relationships in perpetuating this pattern. (Section 4.3)
- As part of the Task Force work process, members used multiple events to present ongoing work, collect information, and establish dialogues about gender equality within the IUFRO network.

These results show that while men are generally dominant in IUFRO, both the organization and the network are making progress towards gender equality, but that this progress is slow. Although IUFRO has undertaken a variety of actions to promote gender equality and diversity, its experience mirrors that of many other organizations – gender barriers are difficult to dismantle, and contributing factors are often outside the organization's control.

The Task Force has reviewed research examining gender inequality in a variety of fields, and especially factors that explain the persistence of male dominance. The quantitative and qualitative research undertaken by Task Force members show that many of these same factors exist within the field of forestry research and contribute to determining the gender balance within IUFRO. Understanding these factors helps to identify opportunities and initiatives by which IUFRO as an organization can contribute further to enhancing gender equality throughout the network.

History and tradition. Forestry, science, and academic research are all fields that have traditionally been dominated by men and so it is not surprising that men are generally dominant in IUFRO. Many IUFRO member organizations continue to be dominated by men, and so representatives to IUFRO or volunteers as officeholders are more likely to be men. This represents an institutionalisation of gender inequality within IUFRO and a form of "path-dependency" and should not be characterised as "just the way things are".

IUFRO as a voluntary organization. IUFRO is critically dependent on individual researchers volunteering as officeholders who are prepared to contribute their time and expertise to

facilitate the network as a way of advancing research within a particular field. Finding people able to commit the necessary time is an ongoing challenge and informal networks within each field are often important in identifying potential officeholders – a practice that is often associated with “old-boys’ networks”. Furthermore, women within forest research organizations are more likely to occupy junior posts and to face challenges in reconciling career and family obligations, leaving little time to accept voluntary positions as IUFRO officeholders.

IUFRO as a network. While IUFRO as an organization can develop policies, set objectives, and propose criteria for gender equality, it cannot impose these on member organizations or individuals in the IUFRO network. Member organizations will make their own choices about who to appoint to the IUFRO International Council or which staff will be granted time and funding to contribute to IUFRO activities. Although IUFRO as an organization is constrained by the choices of member organization, it can aim for gender equality in appointing officeholders in both the network and the organization, and to promote gender equality through all its activities.

Formal and informal networks. As a “network of networks”, IUFRO comprises both formal networks represented by the structure of Divisions, research groups and so on, and informal networks uniting individuals by interest, geographical region, education, professional experience, or other shared values. Both types of networks provide access to relationships that benefit individual members and influence opportunities and decision-making, but also tend to favour dominant groups. Hence organizations such as IUFRO need to ensure that their formal networks reflect gender equality, but also need to recognise the ways in which less-visible informal networks contribute to shaping formal networks and to perpetuating inequality.

Path dependency. Recognising that men have historically dominated both forestry and academia, and that this is reflected in both formal and informal networks, causes a form of “path-dependency”. This means that organizational structures and practices tend to support each other in maintaining the status quo. In such a context, gender neutrality actually contributes to maintaining inequality and so it is important that leadership act as role models to promote change in the organization.

Informal culture as unofficial policy. The effectiveness of policy implementation and governance plays a crucial role in managing change and promoting gender equality. If an issue or topic is not actively managed by an organization, the institutional culture, accepted practices, and informal networks functionally set unofficial policy. In other words, a “gender-neutral” policy that does not challenge inequality will effectively contribute to maintaining gender *inequality*. Statutes and policies within IUFRO that pay little attention to gender are associated with a higher gender imbalance when compared to others that set goals or criteria for gender balance, such as the Scientific Assistance Program.

Institutional legitimacy. IUFRO has a strong reputation for its effectiveness in facilitating international collaboration in forest research, but a changing environment that places greater emphasis on equality creates new expectations towards the organization. The processes and structures established over the years to promote collaboration have (inadvertently) contributed to maintaining a historical gender imbalance. Ensuring future institutional legitimacy will require new actions in this regard.

In its Strategic Plan, IUFRO identifies Diversity as one of its core values and sets a specific objective of further diversifying participation in the IUFRO structure. The interconnecting factors identified above

demonstrate the challenge of achieving this objective, and so we envisage a four-step process to assist IUFRO in enhancing gender equality in global forest research.

The first step in improving representation is the awareness of the present unequal situation, and this report aims to provide such recognition. While IUFRO as an organization appears aware of the numerical size of the challenge, there is a need for greater knowledge and understanding about how this depends upon the organizational and cultural aspects of gender inequality. Gender research demonstrates that doing the same for everyone does not always lead to the same outcomes for everyone.

The second step is making changes and introducing initiatives to enhance gender equality. This report identifies some of the changes that have already been implemented and documents outcomes, such as representation among officeholders in research groups and working parties and in the scientific assistance program. The report also identifies areas where greater effort is required and provides a total of 11 recommendations, addressing four areas of IUFRO activity.

The third step is monitoring the effects of changes, and again this report provides a baseline of the current situation, which will allow IUFRO to measure future progress. But this report also highlights the importance of informal networks and of path dependency within the network and the organization. These less visible issues are also more resistant to change and so monitoring needs to consider the influence of ad hoc committees, organizational representatives, and selection criteria (for example), rather than simply counting heads as an indicator of diversity.

As a fourth step, the report demonstrates the importance of ongoing reflection about the nature and future of IUFRO as both network and organization, as evidenced in interviews with IUFRO leadership. Concerns about representativity, transparency and openness were all voiced, and are consistent with the desire to enhance gender equality. There was less clarity about the best path to reach these goals, and how to move away from existing path-dependency, and we consider that this report can help inform action plans in this regard. In general, success in these types of development processes, requires a clear vision, clearly defined goals and a systemic implementation and follow-up of actions taken to ensure intended effects and results.

This report concludes by recommending a series of initiatives by which IUFRO as an organization could enhance gender equality within the organization and across the network. These recommendations are based on the published literature on gender equality and on the findings from original research undertaken by the Task Force, while also recognizing the limits to IUFRO's influence over the actions of members and individuals in the network. While the Task Force has focused on gender over its 5-year mandate, we recognise that this is increasingly being linked to diversity and inclusion. As such, actions to address gender equality may also support IUFRO's objectives of embracing diversity and ensuring balanced participation. Our recommendations are adapted to the situation and needs of four distinct groups within the organisation and network of IUFRO:

- Reinforce structures and processes within IUFRO Management and Headquarters;
- Promote gender equity within IUFRO Divisions, Research Groups, Working Parties and Task Forces;
- Leverage gender equity through Congresses and other activities and events organised under the IUFRO banner; and
- Review processes and criteria for IUFRO awards and honours.

Content

1. Introduction	1
1.1 Background	1
1.2 Work process	1
1.3 The contribution of the report	2
2. Context and literature overview	3
2.1 Conceptualization of gender and gender equality	3
2.2 Gender in research	4
2.3 Gender and professional networks	6
3. Gender and organizational structure of IUFRO	7
3.1 Organizational structure and gender balance of IUFRO	7
3.1.1 International Council	9
3.1.2 IUFRO Board	10
3.1.3 IUFRO Secretariat (Headquarters) and Executive Director	11
3.1.4 The Honours and Awards Committee	11
3.1.5 Special Programmes, projects and initiatives	13
3.1.6 Task Forces	16
3.1.7 Divisions	17
3.1.8 Research Group and Working Party	17
3.2 IUFRO governance and management	19
3.2.1 Resources and funds	20
3.3 Discussion	21
4. Gender and participation in IUFRO	23
4.1 Surveying perceptions on gender balance and inclusion within the IUFRO network	23
4.1.1 Theoretical considerations	24
4.1.2 Officeholder survey 2020	24
4.1.3 Conference survey 2022	28
4.1.4 Reflections by survey respondents on the topic of gender equality and IUFRO	29
4.2 Gender balance and geographical representation at IUFRO World Congresses	31
4.2.1 Material and method	31
4.2.2 Results	31
4.2.3 Concluding discussion	32
4.3 Perspectives on IUFRO	33
4.3.1 Material and method	33
4.3.2 Results	33
4.3.3 Concluding discussion	37

5. Policies and strategies for enhancing gender equality.....	40
5.1 Policies for enhancing gender equality and equal participation	40
5.2 Strategies for more gender equal networks and participation	41
5.3 Actions and policies of IUFRO on gender equality	42
6. Recommendations for IUFRO Actions on gender equality.....	45
6.1 IUFRO Management and Headquarters	45
6.2 IUFRO Divisions, Research Groups, Working Parties and Task Forces	46
6.3 Congresses and research meetings organised under the IUFRO banner	47
6.4 IUFRO Awards and Honours	47
References	49

1. Introduction

1.1 Background

In its capacity of being the only global network for forest science, and with the overall objective to improve the scientific knowledge base in support to tackle multiple forestry related threats to sustainable development, IUFRO acknowledge the Sustainable Development Goals (SDGs) of the 2030 Agenda an overall framework for its strategy. While the 5th SDG address gender matters in terms of agency, access to resources and how the benefits are distributed, gender and gender equality should be recognized as cross-cutting issue related to forest governance and thereby relevant to all the five IUFRO themes (IUFRO Post-2020 Strategy). Advancing gender equality can enhance the diversity, efficiency, quality and legitimacy of IUFRO lead initiatives related to reducing biodiversity loss, combating climate change, preventing desertification, and achieving land degradation neutrality as well as mitigating linked local and international challenges. While policies, conventions and directives are tasks to be developed, agreed on and implemented by policy makers, it is the duty of the scientific community to provide data, theories and methods to help policy makers understand the specific ways that gender shapes everyday lives, employment opportunities, knowledge production, and forest use.

In the context of IUFRO, both as a network of scientist and as an organization, gender and thereby also gender (in)equality is recognized as something that is 'done' in social interactions, relations and settings (Gunnarsson, 2003). This produces specific organizational logic, values and practices that both shapes the understanding and meaning of the setting, the interaction, its (unequal) relationships and the knowledge produced (Acker, 2006). Similar to other networks and organizations, the social settings within IUFRO embody normative assumptions about, e.g., what is recognised as valuable knowledge and skills, and who is recognised as a valuable contributor/member. Thus, it will impact on both the equal participation, identification, access and influence of IFURO by different groups of scientists and how well IUFRO addresses key dimensions and challenges regarding the relationship between forests and society.

1.2 Work process

As a research subject and scientific perspective, gender was introduced in IUFRO in 2000, by the establishment of a Research Group with two connected Working Parties. It is also through this network of researchers, the present mapping and analysis of the gender-balance and gendering structure within IUFRO has been initiated.

Prior to the 2019 IUFRO Congress in Curitiba, and in accordance with the procedure of IUFRO, a Task Force was proposed. After evaluation and comments by the IUFRO Board, a slightly modified proposal was accepted. The work plan involved five tasks, whereof the mapping and organizational analysis was first priority. To the Task Force, 17 researchers and consultants with a variety of expertise in the subject (gender/gender equality, and forestry organizations) were initially recruited, and a detailed work plan was established during autumn 2019. Since then, the team has expanded both in numbers and competences, meaning that aspects of diversity and inclusion has further improved. The organizational analysis has evolved stepwise and involved the following phases (sometimes overlapping);

- A. Compilation and analysis of gender representation at in the different units of IUFRO
- B. Survey to officeholder on gender balance and inclusion in the IUFRO network (2020) and a Follow-up survey to officeholder, and non-officeholders participating at the All IUFRO Conference in Vienna September 2022
- C. Organizational analysis of IUFRO structure, governance and initiatives

- D. Analysis of actors involved in IUFRO World Congresses (2010, 2014 and 2019) with a focus on gender and geography
- E. Communication of results at IUFRO events including discussion with the participants: i) IUFRO Small-scale Forestry Online Conference 11 February 2021 ii) III International Forest Policy Meeting, Freiburg 17-18 March 2021 iii) WORLD DAY all-IUFRO online forum on 28 September 2021 iv) Gender session at All IUFRO Conference in Vienna September 2022
- F. Follow-up /in-depth with key informants within the IUFRO organization interviews
- G. Presentation of draft report, comments and discussion with IUFRO HQ and IUFRO EB

The progress of the work has been regularly but reported to IUFRO Board according to the protocol, i.e. similar to the annual reporting of other Task Forces at their annual meetings. At the meeting in March 2023, a more extensive oral presentation of the main findings was carried out. Throughout the period (September 2019 to August 2023) the results of the different sub-tasks have been discussed at the Task Force meetings held four times per year.

1.3 The contribution of the report

The work of the Task Force within this report has, through its process and various activities, contributed to raise the visibility and awareness of gender and gender equality within IUFRO, but also raised broader discussions on participation, inclusion and diversity within the network and across different Divisions. As a basis for further in-depth knowledge and future strategic and systemic work and development, the report itself sets out to provide a comprehensive and general understanding of gender, gender equality and inclusion within the structures, resources, practices and initiatives of IUFRO. This includes a set of recommendations to improve the condition for gender equal participation and inclusion within the network. These, and the report, should be regarded as the first step in developing specific actions, targets and visions for the future of IUFRO and forest sciences in general.

The language used in gender studies has changed over time, as the difference between the concepts of biological sex and gender became clearer – with male and female typically reserved, these days, for the biological differentiation vs. ‘man’ and ‘woman’ for the cultural constructions of gender. Here, we have attempted to emphasize gender, as men’s and women’s involvements in forestry are determined almost wholly by ideas of what are culturally appropriate behaviours and characteristics. This usage is consistent with the norms within gender studies.

2. Context and literature overview

2.1 Conceptualization of gender and gender equality

While sex (male/female) commonly refers to the biological differences between people, related to human reproduction; *gender* here refers to the roles, behaviours, activities, and attributes that are associated, and considered appropriate, for women and men in a given social context, at a given time in history (West and Zimmerman, 1987). These expectations, norms and relationships are socially constructed and learnt through socialization processes, which (re)produce these social categories as differentiated and unequal. These inequalities are manifested in how responsibilities are assigned, activities are undertaken, access to and control over resources are attributed, as well as how decision-making opportunities are distributed amongst men and women as groups. These practices of assigning and attributing structure the (unequal) gender relations and produce specific gendered meanings and understandings of, e.g., places, positions, occupations, practices – and are shown in how academia, leadership, science and forestry are gendered.

However, although gender in general is constructed in accordance with two dichotomous positions, it should also be acknowledged that gender can be perceived as a continuum given that there are individuals in all cultures who do not fit into a binary view of gender. But in this report, gender will primarily refer to the categories of men and women and their relations. Also, it is important to underline that while gender always matters, it is not the only social aspect/category that matters. In different contexts and settings, gender intersects with other social categorisations, such as race, class, age, ethnicity etc., which produce different understandings and relations of gender. Theoretically, this analytical conceptualisation of social life and social relations is referred to as *intersectionality* (Colfer et al., 2018; Crenshaw, 1991).

Understanding gender, as well as other social categories and entities, as something that is ‘done’ rather than something that is fixed or essential, opens the possibility to investigate how gender is continuously created in social interactions, relations and settings, and how these both shape, and are shaped by, the specific conceptions of gender (Gunnarsson, 2003). Often perceived as gender-neutral, these social interactions/entities take place, whether in organizations or networks, in different ways, structure and sort gender, based on their organizational logic, values and practices (Acker, 1990; Acker, 1992). Through their specific organisations, structures and practices, these social settings embody normative assumptions about, e.g., what is perceived as valuable and who is perceived to belong. This is something that shapes both the understanding and meaning of the setting, the interaction, its (unequal) relationships and the knowledge produced (Acker, 2006).

Participating in, or being part of, these settings can be seen as dependent on three realms of social life: economic (redistribution), political (representation) and cultural (recognition) (Fraser, 2003). *Redistribution* refers to how resources are allocated, which mainly relates to the economic but also includes technical and cultural resources, and how those shape, e.g., opportunities, participation and access to information and material resources. *Representation* refers primarily to the influence over and participation in decision-making at different levels (as the basis of principles such as fairness, transparency, legitimacy, and inclusion), but also how decisions and decision-making are framed (who is entitled to participate, who is recognized as peers and the types of knowledge that constitutes the basis for decision-making). Therefore, representations, in this conception, go beyond the smaller focus of gender balance (cf. Skjeie and Teigen, 2005) and more broadly refer to the procedures, processes, meanings, and contexts that structure and enable redistribution and recognition. The cultural realm refers to the (positive) *recognition* of groups, identities, values and knowledge as bases for social status, belonging, identification and organisational agendas. Based on recognition and shared cultural

norms and values, institutionalised normative patterns can allow or deny people the social status of full participation. Often the perceived openness and neutrality of an interaction/setting is based in a limited group of peers with, e.g., similar interests, who unconsciously acknowledge each other's perspectives, values and practices as given/natural. Restraints in any of these three realms, can in different ways contribute to excluding processes, practices, structures and norms and specifically limit the conditions for participation in different groups. In a broader sense, the concept of *inclusion* refers to the proactive practice of identifying limitations to inclusion to formulate and develop more open and inclusive processes, practices, structures and norms to prevent exclusion (cf. Kossek et al., 2017).

If gender refers to the social categories, expectations and relations of men and women, *gender equality* constitutes a political and normative concept that is generally focused on changing these expectations and relations towards more equal terms (Magnusson et al., 2008). Since the Beijing conference in 1995, the United Nations has emphasised gender equality as a human rights issue and as a requirement for sustainable development (UN, 1995). This refers to the equal rights, responsibilities and opportunities of women and men and girls and boys and thus implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men (UN, 2015). Given that gender, and gender equality, are relational, it is stressed that gender equality should not be diminished as only an issue for women but instead should concern and fully engage both men and women. Assumptions about gender will influence perceptions of what equality is and how gender equality work should be carried out and vice versa. Different gender equality strategies reflect different notions of gender and thereby produce different understandings of men and women and gender (in)equalities (Squires, 2005).

Strategies focused on providing equal opportunities by treating men and women equally, mainly through challenging formal barriers and striving for 'gender neutrality', primarily understand equal rights as the individual rights of women to operate as free individuals on equal terms with men. In attaining equal opportunities for all, the specificity of women's position or whether the outcome or the participation is equal is often perceived as less relevant (Phillips, 1999; Phillips, 2004). Strategies that instead focus on gender equality of outcome and participation, more than equal opportunities, often acknowledge gender differences and challenge masculine norms and values through striving to enhance acceptance of what is traditionally regarded as 'feminine'. The emphasis on difference, in terms of positions, experience and treatment, runs the risk of becoming a static and essentialist approach to existing social categories and reducing options for possible beneficial changes to these. While similarly focused on equal outcomes, strategies that perceive gender as constructed identify the (de)construction of gender, whether as categories, relations or values, as an integral part of developing gender equality on structural, organisational and personal levels. This provides possibilities for a more open understanding of gender, but also of interrelated relations and entities such as organizations, which can be 'done' differently and in a more gender equal and flexible way (Bacchi, 2017; Squires, 2005).

2.2 Gender in research

Science, like any other societal field, is structured by gender in various ways, with significant implications for the knowledge that is being produced. This sub-chapter gives a brief overview of existing scholarship on the extent of gender (in-) equality in science overall and forest science in particular, sketches its significance for research outcomes and outlines major explanatory factors for the persistence of gender gaps despite equality measures in place.

Extent of gender (in-) equality in (forest) science

As outlined in the preceding chapter, gender is a relational construct that goes beyond a male/female dichotomy and beyond the question of representation. However, scholars rely on these dimensions to quantitatively assess the extent of gender (in-) equality, which they do mainly based on employment data. The UNESCO Institute of Statistics (UIS) regularly provides figures on the number and shares of researchers that are women worldwide. According to its latest data compiled in 2020, women account for 30% of the scientific workforce globally, which is a slight increase as compared to the years before (UNESCO Institute for Statistics, 2020). UIS offers data for specific regions, countries as well as broader research areas, but not for specific fields.

The most comprehensive analysis of forest science has been provided by the Food and Agriculture Organization of the United Nations (FAO): a report on the gender situation in forestry for which the authors compiled statistics on forest-related professionals from various countries (FAO, 2006). The proportion of women at forest faculties and research institutes in the countries covered ranged widely from less than 1 to 70 percent, with the mean share amounting to 29% (FAO, 2006). Since the publication of the report, different region-, country- and organisation-level analyses have been conducted. Some point to even lower percentages of forest scholars that are women (e.g. among US forest scientists or in the Japanese Forest Society; see Ishizaki et al., 2013; Kerner, 2013), others indicate slightly higher shares (e.g. in forestry research institutes located in the Danube region, specifically Bavaria, Croatia, Slovenia and Czech Republic; see Böhling, 2021). Up-to-date figures allowing for a comprehensive and nuanced assessment of gender balance in forest science seem not available.

Significance of gender (in-) equality in science

Persisting gender imbalances in science are concerning not only for normative but also for substantive reasons. Today's socio-ecological challenges, including deforestation with all its consequences, "ask for actions in which all planetary inhabitants are involved" (Asveld et al., 2017: 1). Scholars of different genders bring in different perspectives into the research process, starting from the sort of questions being asked and topics considered important. Aside from varying research interests, existing studies show gender differences in methodological choices and types of intellectual contributions as well as in the aims and impacts of research (King et al., 2018; Thelwall et al., 2019; Zhang et al., 2021).

Integrating diverse perspectives into research is considered to be conducive for the quality, problem-solving and innovation potential of science (Campbell et al., 2013; Nielsen et al., 2017). For example, Yang et al. (2022) show that research teams made up of men and women produce papers that are more novel and highly cited than those produced by same-sex teams, and that these performance advantages increase the greater the team's gender balance. Hence, working towards gender balance in research is not merely a 'fairness' issue but a necessity to tap humanity's full potential for the generation of knowledge and the provision of solutions for pressing problems.

Explanations for persisting gender (in-) equality in (forest) science

With the mounting evidence that diversity benefits science in multiple ways, research bodies have put in place a variety of programmes and measures to increase gender equality. However, scholars that are women still face multiple impediments that diminish their chances to participate in science and gain positions that allow them to stay in research. These include structural barriers as well as gendered practices of recognition (Fox, 2020; Fox et al., 2017). Women in academia receive fewer training and mentoring support (Schwartz et al., 2022; Yousaf and Schmiede, 2017). They are disadvantaged in employment/promotion processes and the competition for research funding (Abramo et al., 2013; Bornmann et al., 2007; Elsevier, 2020; Schmaling and Gallo, 2023; Sheltzer and Smith, 2014). They are

less credited, cited and involved in international collaboration (Abramo et al., 2013; Elsevier, 2020; Nielsen and Andersen, 2021; Ross et al., 2022); and they remain under-represented in academic gatekeeping positions, decision-making bodies and global organisations (Fox et al., 2019; GenderInSITE et al., 2021; Ngila et al., 2017; Yousaf and Schmiede, 2017).

How these barriers are experienced varies in different geographical and cultural contexts (Beaudry et al., 2023; Etkowitz and Kemelgor, 2001; Prozesky and Mouton, 2019). However, research suggests that engagement in international networks plays a crucial role for their chances of academic ascent and participation in science (Stamm, 2010; Avolio et al., 2020).

2.3 Gender and professional networks

Gender differences in networking have been cited as one of the main reasons for gender career development and promotion gaps (e.g. Saloner, 1985; Durbin, 2011; Beaman and Magruder, 2012) and academic networks have shown to be no exception (e.g. Gersick et al., 2000; Elg and Jonnergård, 2003; Ceci et al., 2014; Berggren et al., 2022). In professional development, access to formal and informal networks has been highlighted as crucial, where the more informal networks are less visible, transparent and therefore harder to manage. Gendering processes often take the form of organizational subtexts and seemingly gender-neutral practices have various gender implications. Both in its formal and informal character, research has shown that the domination of men in networks remains a persistent structural barrier for women (e.g. Kvande and Rasmussen, 1994; Benschop and Doorewaard, 1998; Gersick et al., 2000; Elg and Jonnergård, 2003), partly due to their nature (closed) or operation (informal) (Rindfleish and Sheridan, 2003). Restricted network access denies involvement in the exchange and creation of tacit knowledge and concentration of organizational resources and power. It may not be a lack of networking skills or awareness of networks that disadvantage women but the gendered division of labour that enable men to be more active in networks. However, to understand the forms of knowledge created in specific networks, it is also important to understand the types of people that interact within them due to the dependent and structuring relations (e.g. Ibarra, 1993). Issues of inclusion and equality are highly significant for both the knowledge produced within networks and the perceived relevance of networks from a societal perspective.

Mapping of the IUFRO network will be designed to better understand differences in the interaction and the strategic use of the IUFRO network by men and women researchers, to determine whether men and women perceive the same opportunities to network, and identifying the gendering subtext of the organization and the accessibility of its networks. To do this, it is necessary to understand the IUFRO network characteristics, such as resources exchanged or variations in the network structure, in order to understand the specific ways in which men and women differ in their network interaction and differences in opportunities (cf. Ibarra, 1993).

3. Gender and organizational structure of IUFRO

The International Union of Forest Research Organizations (IUFRO) is a global network for voluntary cooperation on forest and forest-related research. IUFRO is a non-profit and non-governmental organization with Headquarters in Vienna, Austria. The network unites about 630 Member Organizations in almost 120 countries and involves over 15,000 scientists.

As one of the oldest international scientific organizations, IUFRO has a long history and tradition dating back to the late nineteenth century. In 1892, the *International Union of Forestry Research Stations* was established and the Statutes were first adopted by forestry research institutions in Germany, Austria and Switzerland. The founding aim was an organization of international cooperation in forest research, and it grew rapidly into a large international organization. Dominant issues of the time that were of interest especially for foresters in Central Europe included forest and water management, provenance trials, knowledge regarding growth and yield and technical methods of measurement, etc. Since then, the range of research and policy issues addressed has steadily grown over the years and currently includes a great variety of scientific disciplines addressing forest and forest-related issues from multiple perspectives. In 1929, the term “stations” was changed to “organizations” in the name to reflect the broader basis for future activities. The name was again changed in 2000 when “forestry” was replaced by “forest” for a wider appeal to biophysical and social scientists.

In its position as the leading global network for forest science cooperation, IUFRO plays an instrumental and institutional role in understanding and addressing a wide variety of environmental, economic and social issues related to forests and to forest-related scientific cooperation worldwide. The mission of the organization is to advance research excellence and knowledge sharing and to foster the development of both science-based and interdisciplinary solutions to forest-related challenges.

Throughout its history, men have almost exclusively held all the major and leading positions within IUFRO. The first woman to hold the position of Vice-President for Task Forces, Special Programmes, Projects and IUFRO-Led Initiatives was Dr. Su See Lee in 2011. She was also the first woman to become an Honorary Member of IUFRO, which is IUFRO’s highest recognition and acknowledges persons who have rendered particularly important and outstanding services to IUFRO. Since 1953, 40 men have been awarded this title.

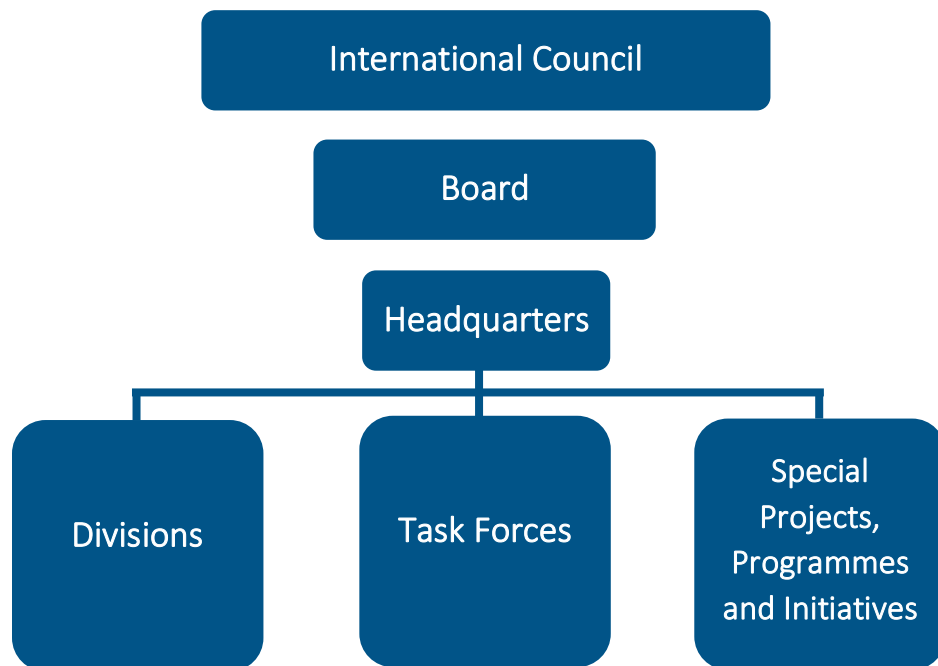
3.1 Organizational structure and gender balance of IUFRO

About 70 meetings are annually organized and every 4-5 years the IUFRO World Congresses take place. The scientific work is organized in nine Divisions, with over 60 Research Groups and more than 180 Working Parties. Besides these, there are 9 interdisciplinary Task Forces. A total of ca 260 coordinators are leading the overall scientific work together with over 500 deputy coordinators.

The permanent Secretariat in Vienna was established in 1973 after an offer from the Austrian government. In 1999, the Secretariat was expanded and the term IUFRO Headquarters was introduced in order to reflect the wider scope of work. The position title of the Secretary was also changed to Executive Secretary to reflect this change of duties. To match the title of similar posts in other international organizations, the name of the position was changed to Executive Director in 2005.

The *International Council* consists of representatives from all countries with member organizations. The *Board* constitutes the executive organ of IUFRO. The *Headquarters* supports and coordinates the work of governing and scientific bodies in IUFRO. The Union's field of scientific activities is spread over a number of *Divisions*. The *Task Forces* advance inter-disciplinary cooperation in forest research fields that span two or more IUFRO Divisions. *Special Programmes* are long-term activities with the aim to improve networking, research capacities and information exchange. *Special Projects* are limited-term activities with specific objectives (see Figure 1).

Figure 1. Organisational structure of IUFRO



In the statutes¹ of IUFRO, there is almost no consideration of gender in relation to the structure, governing bodies and its representation/composition, nor in the prescribed processes of electing, nomination or appointing responsibilities or positions. The only exception is the stipulation that the President’s Nominees will be selected “to strive for a regional, gender and scientific balance”. In 2000, a revised version of the IUFRO Statutes, with gender-specific language removed, was adopted and in 2022, with the integration of the Principle of Freedom and Responsibility of Science advocated by the International Science Council (ISC), the following section on the role of the union was included:

“the Union promotes equitable opportunities for access to science and its benefits, and opposes discrimination based on such factors as ethnic origin, religion, citizenship, language, political or other opinion, sex, gender identity, sexual orientation, disability or age.”

¹ Please note that during the process of conducting this analyses, IUFRO statues where revised and accepted in November 2022. These will come into effect from the congress in 2024. In those instances that the revised statues are expected to influence gender equality, this will be clarified henceforth. The most major change in the coming statues regards implementation of a dual leadership in the IUFRO Divisions (see 3.1.6)

However, in many of the strategies related to the different bodies and functions of IUFRO, the strive for a gender balance, as well as a regional balance, is emphasised.

3.1.1 International Council

The international council (IC) is the highest decision-making body in IUFRO and consists of members from each country that has at least one Member Organization. A new council is appointed after each IUFRO World Congress through a nomination process, where Member Organizations of each country are asked to nominate a representative and alternate representative to the International Council. Notable is however that out of the 122 countries that are entitled to nominate members for the IC, only 66 have completed the nomination including sending in a consent form. It should be noted that most of the countries who nominated representatives have nominated both main and alternate representatives (63 out of 66). The International Council is responsible for advising the President and the Board on major issues concerning IUFRO’s policy and strategy. The IC also elects its Chair and Vice-Chairs who also become both President, and Vice-Presidents of the Union, and Chair and Vice-Chairs of the IUFRO Board. Vice-Presidents are responsible for the coordination and communication with the Divisions and with Task Forces respectively. Among other functions of the IC is to elect all voting members of the IUFRO Board and to decide on the place and approximate date of IUFRO World Congresses. Additionally, the IC can partake in ensuring the policy relevance of IUFRO by making recommendations to governments and national or international organizations on any business relevant to the aims of IUFRO. The great majority of the main IC representatives are men, while the gender difference is smaller among the alternative representatives (Table 1). In total, three out of four members of the IC are men. Half of the IC representatives are from Europe and 79% of these are men (Table 2).

Table 1. International Council, country representatives and alternate representatives by gender, 2019-2024. Note that 66 out of 122 countries have at least one representative in the International Council (incl. those that have not yet submitted their consent form).

	Women	Men	All
Representative	11 (17%)	55 (83%)	66
Alternate representative	21 (33%)	42 (67%)	63
Total	32 (25%)	97 (75%)	129

Table 2. International Council, country representatives and alternate representatives by continent and gender, 2019-2024.

	Europe	Northern America	Latin America	Africa	Asia	Oceania
Representative	33 W:7/M:26	2 W:0/M:2	6 W:0/M:6	12 W:1/M:11	11 W:3/M:8	2 W:0/M:2
Alternate representative	32 W:10/M:22	2 W:1/M:1	5 W:2/M:3	12 W:5/M:7	10 W:3/M:7	2 W:0/M:2
No representative	8	-	13	19	12	4
Total	41	4	19	31	23	6

There are 122 countries in total represented in IUFRO.

3.1.2 IUFRO Board

The executive organ of the Union is the IUFRO Board, consisting of both members who have voting rights and members without voting rights. The voting Board (21 members) is composed of the President, who only votes to break a tie, two Vice-Presidents, the Immediate Past President, the Division Coordinators (Co-Coordiators from 2024 onwards), the IUFRO Headquarters Host Country Representative, and up to seven President’s Nominees (PN).

The Board (40 members) includes all voting Board members plus all Task Force Coordinators, Coordinators of Special Programmes, Projects and IUFRO-led International Initiatives, the Chair of the Congress Organizing Committee, the Chair of the Congress Scientific Committee, permanent observers, and the Executive Director, , as non-voting members of the Board, Permanent observers to the Board include two external organisations - the Food and Agriculture Organization of the United Nations (FAO) and the International Forestry Students’ Association (IFSA) .

The IUFRO Enlarged Board (71 members) comprises all Board members listed above plus the Deputy Division Coordinators and the Deputy Executive Director and aims to provide a broad base for consultation among IUFRO officeholders. In the current Board period, one two thirds of the members on the voting Board are men, whereas more than third of the members of the Enlarged Board are women (Table 3).

According to the IUFRO Statutes and Internal Regulations, the President's Nominees are to be selected to contribute to achieving a more equitable representation of geography, gender, nationality and scientific discipline on the Board, which is one present place in the Statutes that explicates considerations of gender. President’s Nominees will have special tasks, such as chairing IUFRO committees.

According to the statutes, both current and coming in 2024, the president's nominees are to be selected to strive for a regional, gender and scientific balance, which is the only place in the statutes that explicates considerations of gender. President’s Nominees will have special tasks, such as chairing IUFRO Committees, for example the Publications Committee or the Honours and Awards Committee.

Decisions in the Board require a simple majority of votes, provided that more than half of the voting members of the Board are present. The Board oversees agreements that may be made with other organizations, approves the budget, and approves the appointment of all IUFRO officeholders not elected by the International Council or appointed by the Division Coordinators.

Table 3. IUFRO Board composition by Board type and gender, by gender, 2019-2024.

<i>Voting Board</i>	Women	Men	All
President and Vice-Presidents	1 (33%)	2 (67%)	3
Immediate Past President	-	1 (100%)	1
Division Coordinators	3 (33%)	6 (67%)	9
IUFRO Host Country representative	1 (100%)	-	1
President’s nominees	2 (29%)	5 (71%)	7
Total	7 (33%)	14 (67%)	21

<i>Board</i>	Women	Men	All
President and Vice-Presidents	1 (33%)	2 (67%)	3
Division Coordinators	3 (33%)	6 (67%)	9
President's Nominees	2 (29%)	5 (71%)	7
Immediate Past President	-	1 (100%)	1
IUFRO Host Country representative	1 (100%)	-	1
Task Force Coordinators	3 (30%)	7 (70%)	10*
Coordinators of Special Programmes, Projects and Initiatives	1 (25%)	3 (75%)	4
COC and CSC Chairs	1 (50%)	1 (50%)	2
Observers	-	2 (100)	2
Executive Director	-	1 (100%)	1
Total	12 (30%)	28 (70%)	40

* The IFSA-IUFRO Joint Task Force on Forest Education has two coordinators (one from IFSA side and one from IUFRO network)

3.1.3 IUFRO Secretariat (Headquarters) and Executive Director

The Executive Director is appointed or removed from office by the President upon approval of the Board and is responsible for the operation of the Secretariat, for carrying out the business affairs of IUFRO and reports to the President. He/she may be designated by the President to represent the Union vis-à-vis official bodies and third parties.

HQ provides administrative and management support for the President, Vice-Presidents and Division Coordinators as well as Task Forces, facilitates communication within the network and with stakeholders and the public, facilitates and monitors the implementation of the IUFRO strategy, coordinates activities with other international agencies, and disseminates research outputs. The duties of the IUFRO Executive Director, under the direction of the President, include managing the Secretariat and preparation as well as implementation, of the annual budget of IUFRO. Further, the Secretariat keeps records of all members and officeholders, prepares and organizes reports, brochures, newsletters, and other documents as directed by the Board and its Committees in agreement with the President, and maintains the archives and historical records of IUFRO.

IUFRO's HQ currently consists of fifteen permanent staff from eight countries (Austria, Canada, Costa Rica, Estonia, Germany, Nepal, Spain and South Africa). Out of those fifteen permanent staff, four are employed on a part-time basis. Although that there are some variations during period in staff employed, the Headquarters and the members of the Secretariat are, at the end of 2022, in balance in terms of gender. However, all leading positions at the Headquarters is held by men.

3.1.4 The Honours and Awards Committee

IUFRO honours through a variety of awards individuals and member organizations who have made outstanding contributions to the advancement of science and to the promotion of international cooperation in all fields of research related to forests and trees. The honours and awards bestowed by IUFRO fall into two categories – honours and awards in recognition of services to IUFRO and awards for scientific work. IUFRO's honours and awards in recognition of services to IUFRO are aimed at those who promote international cooperation in fields of research related to forests and trees and comprise

the Honorary Membership, the Distinguished Service Award, the Certificate of Appreciation, the Anniversary Certificate and the Membership Certificate. The second category of awards, which is aimed at those who advance forest- and tree related science and research, consists of the Scientific Achievement Award, the Outstanding Doctoral Research Award, the Best Poster Award, the World Congress Host Scientific Award and the Student Award for Excellence in Forest Sciences.

The Honours and Awards Committee is appointed by the President with approval of the Board and, based on evaluations of nominations received, makes recommendations to the Board for most IUFRO awards, like the Distinguished Service Award, the Scientific Achievement Award, the Outstanding Doctoral Research Award and Students' Award for Excellence in Forest Science. The Board approves the presentation of awards with exception of the Honorary Membership, which is approved by the International Council upon recommendation by the Board, and the Best Poster Awards (BPA) which are selected by the Honours and Awards Committee. The Board and its Honours and Awards Committee cooperate with the Congress Organizing Committee of the Congress host country in selecting the recipient(s) of the IUFRO World Congress Host Scientific Award.

All awards conferred each year are published in the Annual Report and may additionally be published in IUFRO News, Congress Reports and other IUFRO media. Additional information on the individual awards is available from the Secretariat.

The Honorary Membership, is IUFRO's highest award and acknowledges persons who have rendered particularly important and outstanding services. About one such award is given annually, although they may be clustered at the beginning or end of a five-year term between Congresses. Nominations are made by members of the Board with input from other members of IUFRO. The International Council awards the Honorary Membership, based on the recommendation by the Board. Since its introduction in 1953, 41 Honorary Memberships has been awarded. Forty of the recipients are men and one a woman.

The Distinguished Service Award, recognizes those whose work has substantially contributed to furthering the scientific, technical, and organizational aims of IUFRO, such as improving IUFRO's organization, outstanding work as an officeholder or strengthening IUFRO's activities and international position. Normally two to three awards are made each year. At least two IUFRO officeholders or members, one of whom is not from the same country as the nominee, make nominations. The Honours and Awards Committee evaluate nominations and present recommendations to the Board for approval. Since its establishment in 1978, 120 persons have received the award. 116 of the recipients are men and 4 women.

The Special Recognition Award (SRA) recognizes those whose work has significantly contributed to the furthering of one or more of the institutional goals and objectives of IUFRO's strategy and is targeted at individuals and partners from outside IUFRO.

The Certificate of Appreciation, decided on discretion of and signed by the President, expresses appreciation for a significant contribution to the organization or activities of IUFRO.

The Anniversary Certificate, recognizes the long-standing membership of individual IUFRO Member Organizations and their contribution to forest science.

The Membership Certificate, is sent, once every Board period, to all the Member Organizations of IUFRO with a standardised formulation.

The Scientific Achievement Award, is announced at each World Congress and recognizes outstanding achievements of up to ten scientists. Member Organizations, Divisions and Research Groups can make

nominations of a nominee that are either belong to IUFRO Member Organizations or are an Individual Members of IUFRO. Nominations are evaluated by the Honours and Awards Committee and approved by the Board. Since 1971, 97 persons have received the award. 87 of the recipients are men and 10 women.

The Outstanding Doctoral Research Award, is conferred the IUFRO World Congress, and recognizes outstanding individual scientific achievements of recent Doctoral research. It has been bestowed 40 times on IUFRO world congresses and 28 recipients have been men and 12 women. Nominations are evaluated by the Honours and Awards Committee and approved by the Board of IUFRO.

The Best Poster Award, is open to under-graduate students, graduate students and individuals who completed their graduate degrees up to 7 years prior to the Congress. The awardee's parent organization must be a member organization of IUFRO, or the awardee must be an Individual member of IUFRO for best posters at each World Congress. Three awards are bestowed per Division, three awards per Task Force and three awards per Congress theme.

The IUFRO World Congress Host Scientific Award honours a truly outstanding scientist from the Congress host country/countries who has elevated the profile of forest science and research accomplishments. It consists of a scroll and a cash honorarium. The Congress Organizing Committee nominates the candidate, the Honours and Awards Committee makes recommendation to the IUFRO Board.

The IUFRO Student Award for Excellence in Forest Sciences, is awarded to a student with a Master degree in forest-related sciences to recognize outstanding individual scientific achievements during the university studies. One award per Division may be presented at each World Congress. Nominations are evaluated by the Honours and Awards Committee and approved by the Board.

3.1.5 Special Programmes, projects and initiatives

Special Programmes and projects are more long-term activities with the aim to improve networking, research capacities and information exchange, while projects are limited-term activities with specific objectives, while projects are more limited in time and with very specific objectives. Coordinators of Special Programmes, projects and IUFRO-led International Initiatives are non-voting members of the Board.

The *Special program for development of capacities* (SPDC) was established by IUFRO in 1983 at the request of the international donor community following a declaration of the XVII IUFRO World Congress in Kyoto, Japan in 1981. The declaration aimed to increase international support for the development of forestry research in economically disadvantaged countries. The programme is implemented via three programme components; 1) Scientist Assistance Programme, 2) Training workshops, and 3) Thematic networking. The programme is set out to pursue equal participation of men and women in all its activities. According to its strategy, the programme activities should cover the following five priority areas:

- Enhancing core scientific competence;
- Improving information management and dissemination;
- Enhancing science contribution to policy processes,
- Promoting communication and multi-stakeholder learning processes,
- Providing institutional support to regional forest research networks.

The participation of about 100 researchers in different IUFRO events are supported by the Scientist Assistance Programme (SAP) on a yearly basis. The supported researchers are chosen through an

application process. Due to the pandemic, the number of activities and applications has been fewer the last years. In general, about 150 applications are reviewed by the program each year. The year of the world congress is an exception, when the program receives over 1000 applications. However, the program is usually only able to support an additional 20 researchers for the world congresses.

Year	Supported scientists (n)	Men	Women	Africa	Asia	Latin America	Eastern Europe
2019	100	43%	57%	32%	33%	30%	5%
2018	26*	50%	50%	35%	31%	15%	19%
2017	82	45%	55%	48%	32%	17%	3%
2016	66	42%	58%	16%	64%	18%	2%
2015	59	39%	61%	19%	58%	15%	8%

* The year before the IUFRO Congress fewer scientists is sponsored

A number of selection criteria is listed in the general policy guidelines of the SAP, e.g. that the highest priority will be given to IUFRO officeholders and forest scientists working in IUFRO member institutions. To achieve both geographical and gender balance, the selection of candidates will also be geared based on these aspects. This gives that the number of researchers that receive support are equally distributed between men and women, although that about only a third of the applications are from women. IUFRO meeting organizers are also asked to short-list candidates for consideration based on submitted and accepted papers for personations. In general, the number of applications is highest from Asia, followed by Africa and Latin America. Given that IUFRO organises 70-90 annually, the support is quite limited and unevenly distributed between different events. Under the SAP offers a limited number of grants of up to EUR 5 000 is annually offered for Short Scientific Visits specifically for Early Career Scientists. The gender and regional balance are also pursued. In 2022, the target group for a Short Scientific Visits was early career scientists that are women and affiliated with IUFRO organisations.

Training workshops are aimed to strengthen research institutions and scientists in economically disadvantaged countries in their ability to generate and deliver high quality scientific information. Three to four training workshops on scientific methods, research management, science communication and science-policy/society interactions are offered on an annual basis. The workshops are organised by the SPDC in collaboration with local partners and about 20-40 persons participates. These workshops either takes place in the prioritised regions or in relation to IUFRO congresses. Due to the pandemic, SPDC shifted to online workshops (first one on systematic review in 2020). Since then, a mix online and in-person workshops were organised, particularly also in view of reducing travel and thus avoid CO2 emissions.

The *Thematic Networking* is focused on strengthening collaboration among scientists and forest experts across countries and continents, and thus also enhances the role of science in shaping forest policy and management. This is mainly done in collaboration with other networks and organisations with a specific thematic focus, such as Forest and Landscape Restoration. Overall, the SPDC is mainly funded by the larger donor organisations of IUFRO (listed under *Resources and funds*) and is communicated through the channels of IUFRO, e.g. the webpage and social media.

In March 2023, the former *Global Forest Expert Panels (GFEP)* Programme expanded and became IUFRO's *Science-Policy Programme*. The Science-Policy Programme consolidates available information and expertise from interdisciplinary fields, focusing on forest-related issues. This information is communicated in different ways and formats, including participation in intergovernmental policy

processes, peer-reviewed scientific assessments, policy briefs and stakeholder events. The Programme facilitates IUFRO's input and representation in science-policy forums and ensures efficient communication among IUFRO officeholders and external partners. The core of the Programme consists of different workstreams, including the Global Forest Expert Panels (GFEP) initiative, Follow-up Studies and Regional Activities. The main outputs of these workstreams are scientific global and regional assessment reports, which are conducted by interdisciplinary panels of leading expert scientists within different fields. Since 2009, eight global thematic reports, one follow-up report and two regional reports on topics such as Forests and Water (2018), Forests and Poverty (2020) and Forests and Human Health (2023) have been published. The selection of relevant expert scientists is based on an initial literature review on each specific topic, which provides a comprehensive list of the most relevant scientists working on the different aspects of the topic, across all related disciplines and all regions of the world. The selection criteria for scientists participating in the panels are based on an agreement of the members of the Collaborative Partnership on Forests (CPF), comprised of 15 international organizations, and are included in the Terms of Reference of each report. The criteria are:

- Areas of scientific expertise
- Regional balance
- Cultural diversity
- Gender balance

From the initial list of authors, the scientific panel is chosen following those criteria, obtaining a shorter list of potential scientists to be invited with relevant scientific expertise that also has a regional, cultural and gender balance. The aim of each panel is to include around 20 scientists. In general, about 2/3 of the invited scientists accept the invitation, while 1/3 decline, usually due to prior commitments and lack of time. The ones declining are usually asked if they would be willing to serve as contributing authors or reviewers. Contributing authors are involved in the drafting of the report and the number of them is based on the needs of each panel. The draft report is peer reviewed (double blind) by a minimum of two reviewers per chapter, and two reviewers for the whole report. Each topic to be assessed, and its focus, shape the panel in different ways, e.g. based on the balance between different disciplines and relevant social and biophysical sciences. Nevertheless, the aim is to always have an interdisciplinary panel. Regarding the geographical balance, even if for some topics it is more difficult to find scientists from specific regions, in particular from low- and middle-income countries, the regional balance is seen as well managed. On a general level, the same goes for the gender balance. The Programme decides on topics based on the agenda of global forest-related political processes, and the need for synthesized scientific information. The work of the Science-Policy Programme is funded by governmental donors and supported by research/educational organizations that e.g. employ authors and reviewers and disseminate results. In the contracts with these donor organisations, only the format of the studies and timelines are agreed, not the topics. All scientists involved in these assessments get travel compensations for attending related meetings, and the main authors get additional compensations, depending on their contributions.

With a specific focus on economically disadvantaged countries in Africa, Asia and Latin America, the regional activities, include the development of regional policy briefs of global assessments, regional workshops disseminating scientific outcomes and regional assessments of specific topics. Two policy briefs focused on Climate Change Adaptation in Africa (2010) and on Forest and Poverty Alleviation in Africa (2021) have been so far published. The same criteria as for the global assessments apply for participation in regional studies, with exception for the regional balance, where the regional scientists are given preference.

World Forests, Society and Environment (WFSE) was initiated for more than 25 years ago as a collaborative, international research project on global forest-related environmental problems. To support sustainable forest management and human wellbeing, it situated the forests and forest sector within wider societal and environmental contexts – which called for an interdisciplinary approach. In 2001, WFSE was approved as a IUFRO Special project. WFSE sets out to be an open, global, network of scientists, experts and practitioners, that provides an independent platform for broad participation and collaboration. For a wide audience of scientists, policymakers and opinion leaders, professionals, and the public, WFSE produces and disseminates scientific publications, mainly large, comprehensive books, and policy briefs. The findings are presented at international events organized in connection of scientific conferences or policy processes. The latest book, with 120 authors, from 2019 covered different aspect of the Sustainable Development Goals in relation to forests and people. The upcoming book, with over 60 authors, will be on topic of forest restoration. In relations to specific topics, internationally renowned scientists are invited to collaborate as authors to in publications and in addition to this, the invited scientist often bring other colleagues that they work with. Many scientists have been involved with WFSE for many years and contributed to several of our books, but each topic/publication also brings in new people and some drop out. The work is based on voluntary contributions, i.e. without pay, and no formal criteria on regional, cultural and gender balance is in place. In the previous and the upcoming publication, about a third of the authors are women. The annually budget of 100 000 euros are used for publication, organization of events, coordination and management. WFSE is financially supported by the Ministry for Foreign Affairs of Finland and coordinated at the Natural Resources Institute Finland (Luke). The project is steered by an editorial board of two women and four men, including the coordinator. The board decides upon topics and planes the process, in the annually dialogue with representatives of the funder.

Directors' Forum (DF) discusses management related issues of IUFRO member organisations. To exchange and development of views on the management of forest research and strategic research priorities, the forum brings together heads of forest research institutes and deans of forest faculties. The core group of the forum consists of eight member, seven men and one woman, including a coordinator and an assistant coordinator, which both are men. Each continent is represented in the core group. The gender balance is perceived by the coordinator to reflect the structure of gender in leadership on a global scale, but an issue that is of concern. The decision on the composition of the core group is discussed with the IUFRO HQ and IUFRO President. The core group meets online and in physical meetings three or four times per year. Physical meetings and seminars, which the DF organizes on leadership questions, are linked to bigger events of e.g. IUFRO, FAO. All Directors and Deans of IUFRO member organizations are invited to these seminars (physical or also online formats). They are also currently contacted with a questionnaire on research management related questions. The outputs are guidelines and learning from each other on research management related questions. These are directly communicated with the heads of the IUFRO member organizations. The last example are guidelines on effective science communication for successful research management.

3.1.6 Task Forces

Task Forces are established on a temporary basis during each 5-year IUFRO Board term to initiate and strengthen interdisciplinary cooperation in forest research between at least two IUFRO Divisions. Their focus in on emerging key issues that are of great interest to policy makers and groups inside and outside the forest sector. This is done from an international perspective that comprise different researchers, areas and activities. Since 1991, over 40 IUFRO Task Forces have brought together scientists, policymakers and other stakeholders and there are currently (2019-2024) nine task forces in play, focusing on issues such as education, forest and water interactions and fires and gender equality. Coordinators of Task Forces are non-voting members of the Board. About two thirds (19) of

the present 28 Coordinators and Deputy Coordinator of Task Forces are men. In comparison with the last period of Task Forces (2014-2019), the share of men as officeholders has increased a bit (from about 61% to 68%). Also, men are more likely to be Coordinators and women to be Deputy Coordinators. Only about a fifth of the Coordinators are women (22%), while share of Deputy Coordinators are twice as large (42%).

3.1.7 Divisions

There are nine Divisions, subdivided into Research Groups and Working Parties that support researchers in collaborative work and provide an organizational link among researchers and also between the Divisions and the Board. Each Division is led by a Division Coordinator who is a Member of the Board where she/he represents the Research Groups in his/her Division, and up to four Deputy Coordinators. The number of Divisions and their broad research field is determined by the Board and approved by the International Council. The Division Coordinators will normally be proposed by the Divisions concerned and will be elected by the International Council on the recommendation of the Board. The Deputy Coordinators are proposed by the Division Coordinators in consultation with other officeholders in their Divisions and appointed by the Board. The main responsibilities of a Division Coordinator are to represent the Division's Research Groups on the Board and to facilitate the establishment and promote the activities of Working Parties. The Division Coordinators also coordinate the activities among Research Groups within the Division and between these Research Groups and other relevant IUFRO Units. Six out of the nine Division Coordinators are men. The number of Deputy Division Coordinators in each Division varies between two and four Deputies. The total number of Deputies are 30, with an equal division between men and women (15/15). After the congress in 2024, each division will be led by two Co-Coordinators who also are members of the Board. In the IUFRO Statutes from 2022, it is stated that "at least one of the two Division Co-Coordinators must be female and/or from a region of the world currently under-represented in the voting Board" (p. 9).

3.1.8 Research Group and Working Party

Within each Division, the scientific activity of the Union is spread over several Research Groups. These Research Groups typically include Working Parties as required to carry out specific tasks within the Research Groups' programme of work. The need for each Research Group and Working Party is continuously reviewed by the Division and proposals for formation, continuation, amendment or termination are made by the Board in consultation with the Division Coordinator (Co-Coordinators after June 2024). Each Research Group will have a Coordinator and one or more Deputy Coordinators, as will each Working Party. Research Group Coordinators are appointed by the Board after consultation with the respective Research Groups and on the recommendation of the Division Coordinator.

The Research Group Coordinator leads his/her Research Group in its scientific and business activities, including the coordination of the interactions among Working Parties. Through the proposition of the work programmes of the IUFRO Research Groups and Working Parties the Research Group Coordinators suggest topics or problems of special relevance to the Research Group. The Working Party Coordinator leads the Working Party in its scientific and business activities and may in this exercise hold additional authority if delegated to him/her by the Division Coordinators. Research Group Coordinators may propose Working Parties within each Research Group. The establishment and termination of a Working Party requires Board approval but can be done at any time. Research Group Coordinators may appoint a Coordinator and Deputy Coordinators to lead each Working Party, after receiving the approval of their Division Coordinators. About a fourth of the Research Group and Working Party Coordinators are women and about a third of the Deputy Coordinators (Table 4).

Table 4. Officeholders in Research Groups/Working Parties by gender*, 2019-2024

	Women	Men
RG/WP Coordinator	66 (27%)	180 (73%)
RG/WP Deputy C.	209 (35%)	388 (65%)
Total	275 (33%)	568 (67%)

* Three unknowns by gender

Division 1	Silviculture
Division 2	Physiology and Genetics
Division 3	Forest Operations, Engineering and Management
Division 4	Forest Assessment, Modelling and Management
Division 5	Forest Products
Division 6	Social Aspects of Forests and Forestry
Division 7	Forest Health
Division 8	Forest Environment
Division 9	Forest Policy and Economics

In brief, the analysis shows that the overall proportion of officeholders (Coordinators and Deputy Coordinators) that are women has increased from 25 % in (2014-2019) to 32% in (2019-2024). There are substantial differences between Divisions, both in terms of representation of women and change. Below average are Division 1, 3, 4, 5 while Division 6, and 9 score well above (Figure 2). For all but Division 3 and 5, there has been an increase in the number of women.

Officeholders by Divisions and gender

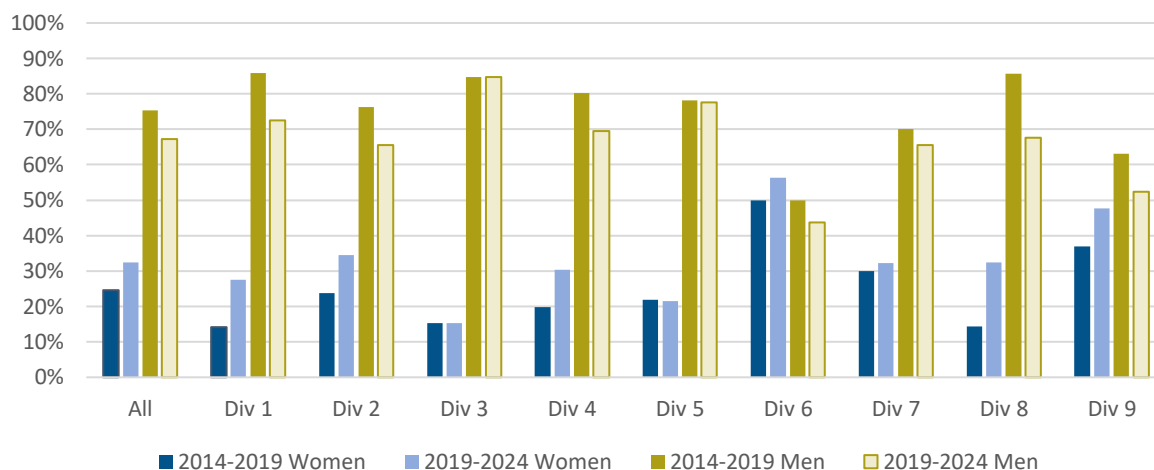


Figure 2. Proportion of office holders by units that are women and men (source: IUFRO records of officeholders)

In general, men are more likely to be Coordinators and women to be Deputy Coordinators (Figure 3), but in Division 4, 5 and 9 the proportions of women Coordinators are the same or higher than the proportions of Deputies. Overall, Division 6 and 9 may be considered as gender balanced.

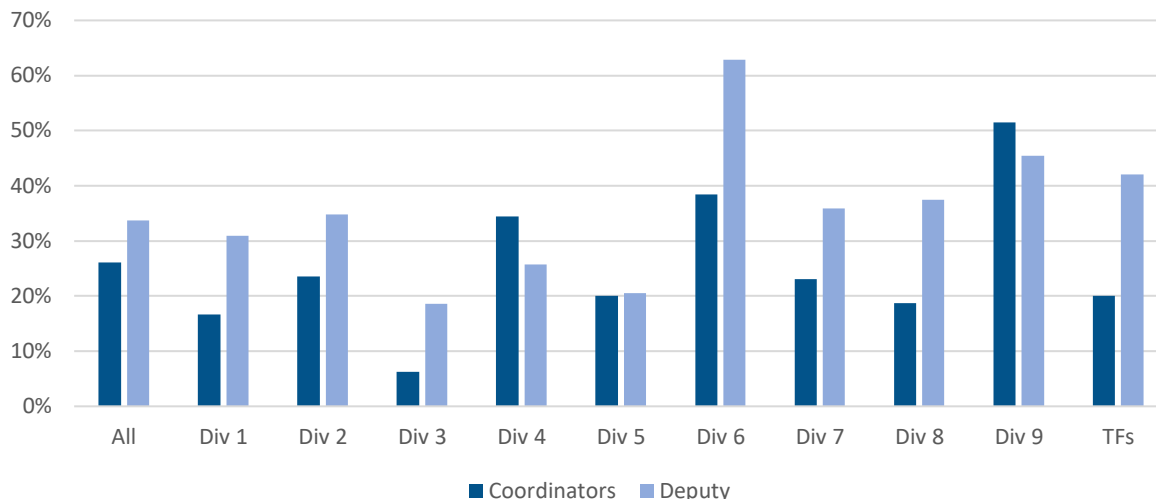


Figure 3. Proportion of officeholders that are women by function and Division (2019-2024)

3.2 IUFRO governance and management

The governing structure of IUFRO, including the duties and power of its main governing bodies is regulated and described in the IUFRO Statutes and Internal Regulations (the 2022 version includes the dates that will be implemented starting with the Board period from 2024 onwards). Many of these bodies, their power and directives, have been described in the sections above. This covers mainly the formal governance of the network and how it distributes resources and power through its relations, structures and practices. In understanding structural and gendered barriers and challenges, the analysis is guided by the concepts of resource distribution, representation and recognition.

At the start of a new Board period (e.g. 2019-2024), IUFRO has the opportunity to update its Strategy that provides a framework for IUFRO’s governing bodies, officeholders and the Headquarters, leading up to the next World Congress. The most recent IUFRO Strategy Post-2020 was adopted in 2020. It was developed through various participatory processes including an independent review. The process for developing the latest strategy took more than two years and was based on the existing strategy and the results of its implementation. In the *IUFRO Post-2020 Strategy*, the Vision, Core Values and Institutional Goals were modified. The Core Values set out to guide the work of IUFRO are *Excellence, Networking, Diversity* and *Integrity*. For Diversity, which constitutes the newest Core Value, it is stated that:

“IUFRO respects and embraces diversity in terms of gender, culture, ethic or social origin and any other aspect of personal status, and rejects discrimination in all its forms. It includes perspectives and approaches from all parts of the world.”

As a tool for implementing the Strategy and monitoring its progress, a Strategy Action Plan 2020-2024 accompanies the current Strategy. It includes 55 actions that enable IUFRO’s governing bodies, units, officeholders and Headquarters to effectively address the Goals and Objectives of the Strategy. The responsibility of implementing actions is divided between Divisions, Research Groups and Working Parties; Task Forces; Special Programmes, Projects and Initiatives, Headquarters and IUFRO governing bodies. The Coordinators of these units have been asked to annually report on their activities to the Board following the structure of the Strategy Action Plan, using a bottom-up approach, starting with the Research Groups and Working Parties.

Within a voluntary network such as IUFRO the informal governance and management of IUFRO plays a crucial role in fully understanding the governance of the network. In the current analysis, this is

mainly explored through qualitative interviews with key informants (4.6). The actions, strategies and policies of IUFRO gender equality, in past and present, is described in more detail in chapter 5.3.

3.2.1 Resources and funds

IUFRO is mainly funded by membership fees and donations, with a total budget of about 2,5 million euros. In 2021, just over EUR 300,000 came from membership fees, the rest from grants/donor contributions. The five largest donors in 2021 were the following (in 1000 EUR, rounded):

- Austrian Government (Ministry for Agriculture, Regions and Tourism): EUR 530
- Ministry for Economic Cooperation and Development (BMZ), Germany: EUR 500
- Ministry for Foreign Affairs (MFA), Finland: EUR 400
- US Forest Service: EUR 183
- Food and Agriculture Organization of the UN (FAO): 179

The rest came from various smaller donors. In most cases, the spending of the donations is agreed upon with a given doner in the grant agreement for the respective year. This mainly relates to activities within the Special Programmes and Projects, such as certain thematic global assessments and reports of the *Global Forest Expert Panels Programme* (GFEP) and certain capacity development activities within Special Programme for Development of Capacities (SPDC). This also gives that the membership fees are used to cover expenditures of the IUFRO Secretariat for core activities, such as office administration, accounting and legal expenses, office equipment and supplies, telecommunication and IT, etc. In 2021, the total budget was allocated as follows:

	<i>Budget (in 1000 EUR, rounded)</i>
<i>IUFRO Secretariat (headquarters)</i>	844
<i>IUFRO Special Programme for Development of Capacities (SPDC)</i>	620
<i>Global Forest Information Service</i>	42
<i>Special Project "World Forests, Society and Environment" (WFSE)</i>	100
<i>Global Forest Expert Panels Programme (GFEP)</i>	766
<i>Partnership projects (IUFRO-Mondi Partnership)</i>	150
<i>Other projects</i>	45
<i>Total</i>	2,567

In addition, IUFRO has a Strategic Fund which currently holds EUR 167,000. The Strategic Fund serves as a financial reserve and are replenished from time to time from unrestricted income (such as income from IUFRO World Congresses). These funds are used exclusively to further the strategic purpose and mission of IUFRO. The fund is managed by IUFRO Headquarters under close supervision by the IUFRO Management Committee.

3.3 Discussion

The first aspect to discuss, in relation to gender and the organisational structure of IUFRO, concerns representation. As concluded, men have historically almost exclusively held the major and leading positions within IUFRO, and the dominance of men seems to prevail. In the international council (IC), 75 % of the representatives and alternate representatives are men and 25 % are women, and the gender balance is similar among the Coordinators of Research Groups/Working Parties and Task Forces. Men represent two thirds of the IUFRO Voting Board and the Division Coordinators. These patterns is not surprising given the gendered character of both academia and forest sciences. However, in comparison, in the Global Forest Expert Panel (GFEP), both men and women are represented to a much more equal extent, showing that gender balanced representation is possible even in settings dominated by men. Also, in terms of geography, unequal representation is a major issue for IUFRO in the IC, out of the 122 countries that are entitled to nominate members for the IC, only 66 have completed the nomination including sending in a consent form, and half of the representatives are from Europe. In the recent years IUFRO has, according to the report *IUFRO 125 years*, made strong efforts to ensure a geographically and gender balanced composition of the Board (p. 103), which is further explored in chapter 5.3. Nevertheless, these efforts will be considerably enhanced when the co-coordinatorship, of the new Statutes, come into full effect in 2024.

The second aspect to discuss concerns recognition. Only a few women have been the recipients of IUFRO's honours and awards. The great majority, or almost all, of these has been men. Honours and awards have an important symbolic and ceremonial value and role of recognising persons, their achievements and contributions to IUFRO and forest sciences in general. But also promoting the organisation and its activities, goals, values etc. Assigning recognition can therefore as well be regarded as assigning inclusion of the organisation/network, stipulating belonging and reproducing specific, and gendered, perceptions and images of IUFRO. In understanding the assigning of inclusion as relational, this contributes also to the assigning of exclusion/difference. Additionally, it contributes to reproduce a gendered perception of forest science and scientists based on how these are valued and acknowledged. These outcomes bring the discussion to the processes of nominations and selections for honours and awards, where the openness in terms of that it's free for all members to nominate, is perceived as the central component for an inclusion process. This leads to the question of who is nominating whom and why, and how does this relate to gender within IUFRO? Little information is also available on the selection criteria/process for the final nominations for the different awards, which makes it more difficult to identify the contributing factors and practices. However, given its practice, it could be safe to assume that the informal networks and relations of IUFRO, and the traditions of recognition dominated by men as part of homosociality, contribute to shape the nomination process and its outcome.

Thirdly, recognition and distribution of different resources is often interlinked, which gives that these can be studied and understood in relation to each other, but also as a basis for representation. This gives that besides looking at distribution of awards, it's also relevant to reflect upon how IUFRO in different ways distributes resources and funds within the organisation and network in order to understand how it, and its practices, activities and focuses, is shaped and reproduced. The reporting on budget of IUFRO, which is primarily addressed in chapter 3.2, does not assess the gendered implication of this general distribution of funds based on these different budget posts. Some of these issues and implications are highlighted under the different sections. On an organisational level, the assessment and monitoring of the distribution, and its potential effect, are dependent on whether there are related goals or guidelines, in terms of composition and support, that can be analysed. One example of this is the Special Programme for Development of Capacities (SPDC). This gives that the reporting of this can be described in relation to the implementation of SPDC.

As both a network and an organisation, IUFRO provides different forms of resources and support that in different ways can promote and be utilised in e.g. career and research development. At the basis of equality and inclusions, this highlights that it's not only important to reflect upon the distribution of economic funds, through the budget of IUFRO, but also other organisational resources and support, their distribution, access and utilisation. The perceived openness of IUFRO is contributing to potential inequalities in the distribution of, and access to, resources, become less visible. To render these potential challenges and practices visible, calls for, in a similar way as with economic funds, a more detailed assessment and monitoring. This to provide a better understanding of the challenges at hand as well as the implication, and potential effects, of implemented strategies and actions within different areas and different levels.

To summarize, it can be concluded that both in relation to representation, recognition and the distribution of resources, IUFRO tends to fall short despite its formal ambitions to increase equality in relation to both gender and geographical balance, with a few exceptions. Governing ongoing processes of changes, is vital to follow up and assess the gendered implications of measures taken. Here, the availability of gender disaggregated data is crucial in order to map, track and evaluate interventions for more equality in IUFRO, which this report partly contributes to do. While the new Statutes from 2022 constitute a formal response to the insufficient representation of women as Coordinators, that hopefully will contribute to increase this share and the numerical gender balance, the informal processes are not targeted. Research on the gendered aspects of organisational processes shows that besides from policies, statutes and formal procedures, informal processes within a paradigm dominated by men are mechanisms influenced by the entanglement of homosociality and (perceptions of) meritocracy. In turn, as these informal processes shape representation, recognition and the distribution of resources, actions for increasing gender balance and equality hence needs to comprise those aspects.

4. Gender and participation in IUFRO

There are various ways to get involved in the IUFRO network. Given the extensive and open organizational form, the exact number of individuals who belong or consider themselves associated with IUFRO overall or at any given time, cannot be determined. It is thus through the number of member organizations (about 650), and the countries they represent (more than 120), that the number of involved researchers can be estimated at 15,000. The extent to which these 15,000 actively engage in various open IUFRO activities such as congresses, conferences and workshops, or the organizational work, i.e. as officeholders, depends partly on their own interest and partly on the support of their own member organizations. Also, the involvement as officeholders often implies an involvement in conferences etc. as much of these activities builds on their initiatives and participation. As the IUFRO HQ do not keep contact details of all the 15,000 researchers, the officeholders are expected to be aware of which researchers and institutions exist globally within their subject-specific research field and thereby also disseminate information and encourage participation in various IUFRO events.

At the time of the survey ,there were 873 office holder positions at Division, Research Group, Working Party and Task Force level, but since some individuals have more than one position, there are 808 unique individuals with officeholder positions.² Then, according to the IUFRO Statutes, the Division Coordinators constitutes the voting Board together with the President, two Vice-Presidents, the Immediate Past President, the Division Coordinators, the IUFRO Headquarters Host Country Representative, and up to seven President's Nominees (see also chapter 3).

4.1 Surveying perceptions on gender balance and inclusion within the IUFRO network

Considering the key position that the officeholders have in the network, also with regards to the interaction and the strategic use of the IUFRO network by men and women researchers including their perceptions of IUFRO as gender balanced and inclusive (or not), an officeholder survey was conducted in February-March 2020. In addition to five questions on gender related perceptions, a set of background questions (age, research context, position, etc) was asked. The questionnaire and cover letter was developed by the Task Force, which then was administrated and sent out by the IUFRO HQ, using their full list of office holder contact information. After a total of 4 weeks and one reminder, the survey was closed at the end of March, providing responses from 156 officeholders i.e. 19.3 % response rate. Such a low response rate on a total survey is of course problematic if you want to reflect the opinions and experiences of an entire population. In any case, it is typical for officeholder surveys according to the HQ, and therefore not indicating any particular be "pro or con opinion" towards the issue at hand. Still, similar to other surveys, we may assume that those who are engaged in the issue at hand are more likely to answer the survey than those who are indifferent.

Another weakness with the officeholder survey is apparently that it leaves out the vast majority of the network, who we can assume have different perspectives than those who already have obtained a position. For that reason, another survey (hereafter called conference survey) was conducted targeting the 740 (160 on site and 580 online) participants at the All-IUFRO Conference in Vienna on 21-23 September 2022. The survey was announced and launched in connection to the conference session on gender titled "Gender (un-)equal networking of IUFRO: Creating new spaces and thinking", where among other things results of the mapping of IUFRO as an organization and the survey amongst the IUFRO office holders was presented and discussed. Similar to the previous survey IUFRO HQ conducted the administration using their full list of registered conference participants while a slightly

² 50 individuals have two positions, 6 individuals have three positions and one individual have four position

modified questionnaire.³ Besides some small revisions of the cover letter provided by the Task Force, a question on whether they had experienced any changes within IUFRO, or at unit level, in regards to gender equality, during the last two years was added. After total of 4 weeks and two reminders, the survey was closed on 24 October with 48 on site respondents and 72 online respondents, we reached 30% of those attending in person and 12% of the online audience, and an overall response rate of 16.2%.

4.1.1 Theoretical considerations

Our discussion here describes men and women as ‘male’ and ‘female’. Since developing the survey, using the terms frequently encountered within IUFRO, we have had second thoughts about this usage. These terms are basically biological terms, which hold the potential to reinforce inappropriate biological and essentialist⁴ interpretations of gender. In contrast, gender is a *social* construction, with varying implications for individuals, from place to place and time to time. In this article, we have felt constrained to retain the terms, male and female, because that is how we initially framed our survey questions. However, we have tried to use ‘men’ and ‘women’ in our discussion of our findings (feeling that in this instance, ‘male’ and ‘female’ can serve as proxies for ‘men’ and ‘women’). In future, we will use the appropriate terms ‘men’ and ‘women’.

A second issue has come up with regard to our usage, and that is our evolving recognition of the non-binary nature of gender. There are individuals in all cultures who do not strictly adhere to the binary view of gender. We propose that IUFRO recognize the existence of such individuals, no matter where they fall on the gender continuum. We suggest adding two new categories when querying, registering or discussing gender: “women”, “men”, “non-binary gender” and “prefer not to answer”. Such a change will both make our future gender work more consistent with social realities and it will contribute to increasing IUFRO’s structural inclusivity in the long run. This will also yield great sensitivity within IUFRO to LGBTQIA+ issues and rights,⁵ and recognize the existence of a diversity of genders around the world (e.g., the five genders recognized in southern Sulawesi (Davies, 2007) or the two-spirits common among indigenous North Americans (see e.g., Bauer et al., 2017).

4.1.2 Officeholder survey 2020

Characteristics of the respondents

Out of the 156 respondents, 41% were women and 59% men, meaning that the response rate for women office holders was higher than for men office holders. Fifty percent of the men are older than 50 years compared to 37% of the women, and the difference in age structure is also reflected in their total time as office holders (Table 5). In the group of women, 71% have 5 years or less as officeholders compared to 64 % of the men. This probably also has a bearing on how the distribution of positions as Coordinators and Deputy Coordinators, namely that of the women 33% are Coordinators compared to 41% of the men.

³ In the office holder survey when we used the terms ‘male’ and ‘female’ to describe men and women. However, we have had second thoughts about this usage and decided that for the second survey ‘man’ and ‘woman’ instead.

⁴ ‘Essentialist’ is a gender term that approaches women’s and men’s natures as biologically determined. Such a view holds that women are a certain way and men are a certain different way. This is a perspective that we disavow.

⁵ LGBTQIA+ is a common abbreviation for Lesbian, Gay, Bisexual, Pansexual, Transgender, Genderqueer, Queer, Intersexed, Agender, Asexual, and Ally community. A glossary explaining these terms is available at: <https://www.uis.edu/gendersexualitystudentservices/about/lgbtqaterminology/>

The vast majority of respondents reported a background in natural sciences (83% of the women and 80% of the men) and that their main context of research, regardless of gender or scientific background is boreal or temperate (Table 5). Those who reported a mixed sciences background also reported a mixed context of research at a higher rate than those who reported a background in either social or natural sciences. Respondents came from all eighteen Divisions and Task Forces of IUFRO, and 28 of them reported multiple associations. The distribution of men and women respondents varies considerably on the different Divisions, which partly reflects the different size of the Divisions and partly the gendered composition of the same. Generally speaking, there are fewer Coordinators than Deputy Coordinators, but among women respondents the emphasis is even more towards Deputy Coordinatorship.

Of the 57 Coordinators that answered the survey, the distribution of women and men is 35% and 65% respectively. The disparity between how many of the respondents in the role of Coordinator at IUFRO that are women is seemingly tied to how long they have been in a position as officeholder. Where the Coordinators who have been in such a position up to a year is more likely to be women than men, whereas the opposite is true for any Coordinator who has been in position as an officeholder for more than a year. This seems to reflect that nowadays when recruiting officeholders, the gender distribution is taken into account, but at the same time that recruitment to Coordinator often goes via a previous Deputy Coordinatorship.

Table 5. Proportion of women (n=64) and men (n=92) officeholders by background characteristics

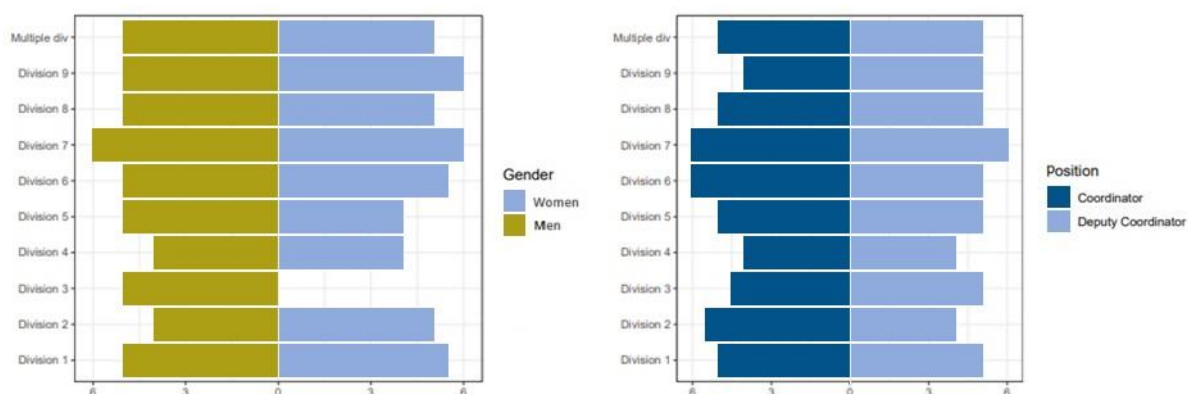
Characteristics	Women respondents, %	Men respondents, %
Age , +51 yrs	37	50
Scientific background;		
Natural science	83	80
Social science	13	10
Mix of natural and social science, engineering, forestry, agriculture	5	10
Main context of research;		
Boreal/Temperate	78	78
Sub-tropical/Tropical	12	17
Other (Global, several, arid)	10	5
Unit association;		
Division 1	8	5
Division 2	11	5
Division 3	2	17
Division 4	11	13
Division 5	8	10
Division 6	5	4
Division 7	14	5
Division 8	16	11
Division 9	6	9
Multiple Divisions	14	10
Multiple Divisions & Task Forces	5	11
Current position;		
Coordinator	35	43
Deputy	65	57
Previous position;		
None	69	52
Coordinator at lower/same/higher level	11	21
Deputy Coordinator at same/lower level	20	27

Total time as officeholder;	Up to 1 year	42	35
	1-5 yrs	30	29
	6-10 yrs	14	21
	More than 10 yrs	14	15
	Initial contact with IUFRO;		
	Conferences etc. by RGs or WPs	52	44
	World Congress	27	30
	Div. or Reg. Conf	16	18
	Task Force	3	4
	Student activities	2	3
Years since initial contact;			
	1-5 yrs/	28	13
	6-10 yrs/	17	23
	11-15 yrs/	17	21
	16-20 yrs/	16	11
	21 + yrs	22	33
Initial recruitment;			
	Through a colleague	42	33
	Through participation in IUFRO activities	21	28
	Through external researchers in my network	37	39

Experiences and perceptions of gender (in) equality

Ninety percent of the women and 84% of the men respondents consider the IUFRO network as (moderate/quite/very) important for their professional development. When asked if it is important to improve gender equality within IUFRO, 68% answered that it is quite important (5) or very important (6). However, as shown in Figure 4, the opinion differs between the Divisions, and also with respect to gender and position. The Coordinators as a group, regardless of gender, stated that it is more important than the group of Deputy Coordinators.

Figure 4. Median value of importance to improve gender equality within the IUFRO network- (1=Not at all, 6=Very important)



The group of Deputy Coordinators also saw both the network and their respective units as more gender equal than the respondents with a Coordinator position (Table 6).

Table 6. Officeholders' perceptions of gender quality within IUFRO in general, and their own unit by position. On a scale from 1 (= not at all) to 10 (= completely)

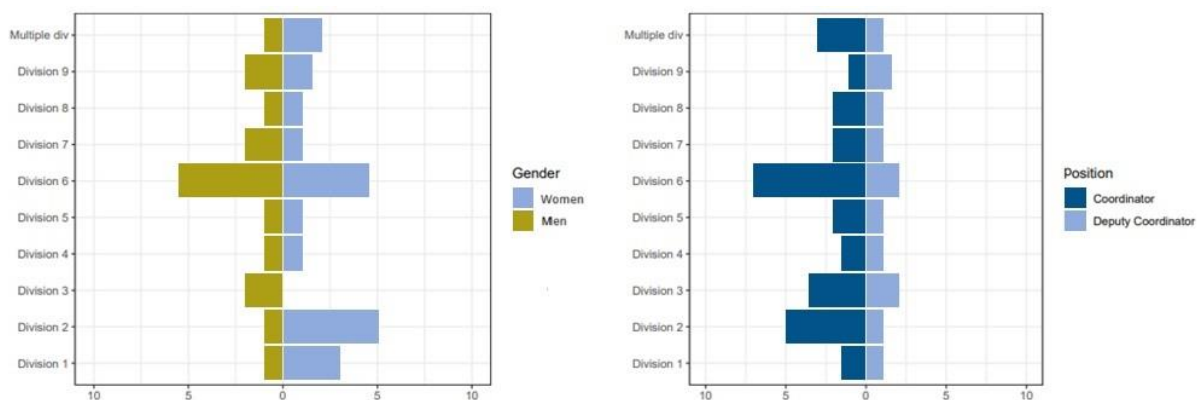
	Position	IUFRO as a gender equal network	The Unit as gender network
Mean	Coordinator	5.54	6.36
	Deputy C	6.10	6.62
Median	Coordinator	5.00	7.00
	Deputy C	6.00	7.00

In both the group of Coordinators and the group of Deputy Coordinators the men saw the network as more gender equal than the women in the same position. However, the women in a Coordinator position saw their own unit as more gender equal than the Coordinators that are men, they did however answer that they had experienced gender inequality as a constraint to their participation or engagement in the IUFRO network to a larger extent than their counterparts (Table 7 and Figure 5). Still, half of the women and half of the men responded that they never had experienced gender inequality as a constraint, whereas twelve women and eight men have indicated 5 or more on the 10-graded scale.

Table 7. Officeholders' perceptions of gender quality within IUFRO in general, and their own unit by gender and position. Mean values on a scale from 1 (= not at all) to 10 (= completely)

	Importance of IUFRO for professional development	Importance to improve gender equality	IUFRO as a gender equal network	The Unit as gender network
Women Coordinator	4.85	5.00	5.16	6.67
Men Coordinator	4.54	5.00	5.73	6.22
Women Deputy C	4.44	4.82	5.59	6.46
Men Deputy C	4.57	4.69	6.49	6.75

Figure 5. Experience of gender inequality as a constraint to participation/engagement in the IUFRO network by gender and position. Median values on a scale from 1 (= not at all) to 10 (= completely)



4.1.3 Conference survey 2022

Characteristics of the respondents

In contrast to the officeholder survey, where all respondents were officeholders, only 18% of the conference survey respondents declared an officeholder position, and of those 81% attended the conference on-site. Of the non-office holders, 32% attended the conference on-site. In general, the on-site and virtual respondents have different main fields of research; 65% of the former work in a boreal/temperate context compared to 27% of the latter group who mainly work in sub-tropical/tropical forest (73%). Furthermore, those who participated virtually were generally younger (81% less than 41 years compared to 52% for on-site participants), had been in contact with the network for a shorter time (81% no longer than 5 years compared to 50% for on-site respondents), and worked to a greater extent in natural science fields (86% compared to 63%). Of the virtual respondents, 45% were women compared to 60% of the on-site respondents.

As a main objective with this survey was to target the wider circle of IUFRO participants to find out if their experience and perceptions differs from officeholders', the following depiction will depart from the responses by the 21 officeholders compared to the 95 non-officeholders. In terms of background characteristics, non-officeholders are considerably younger, their initial contact with IUFRO is more recent, and their main context of research is sub-tropical/tropical (table 8). The vast majority has a natural science background, and in this regard, they correspond to the majority of officeholders in the previous survey (cf. Table 5). In contrast, a social science background is fairly common among the office holder respondents in the current survey, but otherwise rather similar to the respondents of the previous survey.

Table 8. Background characteristics of conference survey respondents

Characteristics	Office holders %	Non-office holders %
Age , +51 yrs	38	16
Scientific background ;		
Natural science	52	82
Social science	43	26
Main context of research;		
Boreal/Temperate	83	36
Sub-tropical/Tropical	17	63
Years since initial contact;		
1-10 yrs	38	84
11-20 yrs	33	8
21+ yrs	29	8

Experiences and perceptions of gender (in) equality

There are small differences between the groups regarding how they value the importance of the IUFRO network for their own professional development (Table 9). The men officeholders are those who consider the entire network, and their own unit as less gender equal than women officeholders. Among non-officeholders, a similar and high perception on gender equality is reported both with regards to the entire network as well as the unit they feel most associated with. On the other hand, women and men office holders seem to somewhat greater extent consider it important to improve gender equality within IUFRO than the non-officeholders (Table 10). This may be related to the fact that they to a greater extent than non-officeholders experience gender inequality as a constraint to their participation or engagement in the IUFRO (Table 10).

Table 9. Conference participants’ perceptions of gender quality within IUFRO in general, and the unit they associate with by gender and position. Mean values on a scale from 1 (= not at all) to 10 (= completely)

	Importance of IUFRO for professional development	IUFRO as a gender equal network	The Unit as gender network
Women officeholder	4.77	5.77	7.08
Men officeholder	4.75	5.13	6.63
Women non-officeholder	4.83	6.76	6.81
Men non-officeholder	5.02	6.98	6.71

Table 10. Experience of gender inequality as a constraint to participation/engagement in the IUFRO network by gender and position (office holder non-officeholder). On a scale from 1 (= not at all) to 10 (= completely)

	Experience of gender inequality as a constraint to engagement		Importance of improving gender equality within the IUFRO network.
	Yes, %	No, %	Mean value on a scale 1-6
Women officeholder	25	75	5.54
Men officeholder	38	62	5.63
Women non-office holder	12	8	5.24
Men non-officeholder	17	83	5.08

From the open-ended comments, a general opinion by both men and women seems to be that they have felt welcome. None of the men mention, in the comments, that men are getting sidelined. It rather seems to be that the gender, and North/South, imbalance of IUFRO constrains their motivation to engage. The women's comments show that perceived discrimination is an obstacle partly on the individual level but also that the exclusion of perspectives hampers the discussion and interest.

4.1.4 Reflections by survey respondents on the topic of gender equality and IUFRO

With a final question in both surveys, respondents were encouraged to contribute with their thoughts and insights on the topic of gender equality, which resulted in 82 responses (45 in the officeholder survey and 37 in the conference survey) on a variety of subjects. We consider this substantial number of inputs as a proof that the subject is considered important, and by thematizing the comments, the following reasoning emerges.

Related to the reported experience of improvements are a number of compliments on the surveys and other IUFRO initiatives putting gender equality on the agenda of discussion. One aspect is the significance of women’s representation at different organizational levels but also at conferences and

other events. The work of following up, evaluating and developing the work needs to be recognized. In that context, there are comments that the election should primarily be guided by demonstrated personal commitment and the quality of the work, and that women do not want to be elected because of their gender. Even if the comments left, refer specifically to women, it can be assumed that the same opinion also applies to men. However, a crucial aspect in this context is how competence and quality are understood and assessed.

As an explanation for the gender imbalance within IUFRO, the overall situation globally in the forestry sector and academic world is put forward. Some comments also point out that the situation in IUFRO is considered better than in their own organization or home country. Taken together, these comments highlight the relation between the conditions for participation, gender, and economic resources, that also goes with the influence of the traditionally dominant universities/institutions within the IUFRO network.

Bearing this in mind, a third set of themes emphasize the potential role of IUFRO in promoting gender equality within forest research/externally and in relation to member organizations and other actors. It is stated that gender equality is not a women's issue, it's an issue for men and the whole organization. Consequently, there is a need to improve the transfer of research-based knowledge to management solutions, but also to broaden the topic, meaning that "gender equality" goes beyond "head counting" of women and men. It is a matter of diversity and inclusion, which makes it more interesting for more people to contribute to the development of the network.

4.2 Gender balance and geographical representation at IUFRO World Congresses

As part of its mission to foster knowledge sharing and cooperation in forest science, IUFRO organises networking activities and scientific events at a regional and global level. Among the largest are the IUFRO World Congresses: covering the whole spectrum of forest research in terms of themes and disciplines, they bring together researchers and practitioners from all across the globe. With their broad topical scope and geographical coverage, they offer a unique space not only for communicating and discussing research findings but also for the formation of new research areas and collaborations. Hosting these congresses, IUFRO performs a crucial role in the advancing forest science as inter- and transdisciplinary field.

4.2.1 Material and method

Science studies have highlighted the significance of such events for knowledge production and the development of disciplines, and outlined the important function of international scientific associations like IUFRO in facilitating them (Boncourt et al., 2021; Gross and Fleming, 2011; Merritt and Hanson, 1989). At the same time, they have shown that conferences reflect and reinforce gender and geography-related inequalities that structure scientific fields (Ford et al., 2018; Dubrow et al., 2015; Stegbauer and Rausch, 2012; Johnson et al., 2017). We therefore conducted a comprehensive actor-centred science study to explore gender balance and geographical representation at IUFRO World Congresses (Koch and Matviichuk, 2021). Focusing on the events of 2010, 2014 and 2019, we examined their social structure based on scholars' sex and affiliation, and disaggregated by different conference roles, namely members of Congress Scientific Committees (CSCs), keynote/plenum speakers, session chairs and presenters.

4.2.2 Results

The analysis of the IUFRO World Congresses 2010, 2014 and 2019 shows that the composition of actors involved has notably diversified over the decade: The share of women rose from 22.1% in 2010 to 36.7% in 2019, and the number of countries in which actors were based increased from 75 in 2010 to 91 in 2019. The latest congress in Brazil stood out as the most inclusive one with regard to gender balance and geographical representation. The fact that significantly more women and academics from Southern sub-regions appeared as keynote/plenum speakers indicates a clear effort by the organisers to make these groups more visible.

However, throughout the three congresses, scholars that are men still performed twice as many active roles as scholars that are women. With an aggregated share of 73.2%, scholars affiliated with research organisations in Northern America, South America, Eastern Asia, Northern and Western Europe dominated the events while scholars located in Eastern Europe, Central America and the Caribbean, Western and Central Asia as well as Sub-Saharan Africa were only marginally involved.

Gender and geography-related inequalities were particularly pronounced in roles with agenda-setting and gate-keeping power: Almost 73% of all CSC members were based in Northern America, Western and Northern Europe, and 80% of them were men. Among session chairs, the share of women was only 24.3%; more than two-thirds of the sessions were chaired by scholars located in Northern America (27.0%), Western Europe (16.8%), Northern Europe (12.7%) and Eastern Asia (10.7%); all other sub-regions (fourteen in total) had shares in the single-digit range.

The persisting imbalances particularly in roles with decision-making power are likely to have implications for the overall composition of participants and the diversity of perspectives included. Various studies have shown that both homophily and endogamy effects play out at scientific conferences: Men are more likely to select men as speakers whereas the presence of convenors that are women correlates with a higher proportion of speakers that are women and better gender parity

in panels (Casadevall and Handelsman, 2014; Johnson et al., 2017; Kalejta and Palmenberg, 2017). Moreover, scholars tend to bring in their own personal networks into the conference space and interact with colleagues based in the same geographical area, with the result that panels are often less international than claimed (Derudder and Liu, 2016; Stegbauer and Rausch, 2012). Hence, a high degree of homogeneity within CSCs and session chairs risks to narrow diversity at global forest science conferences, both with regard to the actors involved and the knowledge that is getting a stage.

4.2.3 Concluding discussion

The IUFRO World Congresses provide an important social and epistemic space of forest research communication and networking. To make them more inclusive, we recommend two sorts of ‘affirmative action’ derived from the insights of our study. The first is to address ‘backstage’ inequalities by increasing gender balance and geographical diversity in Congress Scientific Committees, but also among session chairs. This could be done through IUFRO Divisions by proactively contacting and encouraging scholars and researchers that are women based in Southern world regions to perform such roles.

The second recommendation is to make conscious choices about place. The last congress in Brazil boosted the participation of scholars based in Latin America, whose representation was markedly low in previous events. This corroborates previous studies indicating the significance of place that often determines who is able to/can afford to join scientific events. From a diversity perspective, it would be instructive to always offer the option of virtual attendance (with a reduced fee or fully free, as for instance realised by the Fourth International Forest Policy Meeting 2022 hosted by EFI, Wageningen University & Research, and BOKU) at scientific events organised under the IUFRO banner. While hybrid events require additional efforts and do not make scientific gatherings ‘all-inclusive’, they provide a chance for scientists who would otherwise be excluded for a variety of reasons, such as caring responsibilities, lack of funds, health, visa and travel barriers.

In its Post-2020 Strategy, IUFRO has committed itself to embracing diversity as part of Goal 2 on network communication, arguing that the “(balanced) participation of scientists on equal terms (gender, culture, age, and geography) constitutes a prerequisite for the relevance and quality of the science collaboration in IUFRO”. The IUFRO World Congresses as well as the various other IUFRO events provide important spaces to work towards this goal and diversify actors, voices and perspectives in global forest science.

4.3 Perspectives on IUFRO

The documents, structure, Statues and Internal Regulations of IUFRO provide a critical basis for the organisational analysis and understanding. In addition, the survey of officeholder contributes with insight to the participation, motivations and perspectives of the large body of people that are embodying the organization. By exploring how IUFRO, its organisation and practices is perceived and experienced by persons in leading and influential positions, this study adds insights to the practices and implementation of leadership and organisational policies within IUFRO.

4.3.1 Material and method

To examine the perceptions, experiences and organisational understanding of persons in leadership, semi-structured interviews over Zoom were conducted. A total of seven interviews were carried out with interviewees that occupy leading positions in IUFRO, and thus possess significant insights and knowledge on the organisation, its operations and practices.

The interview guide covered broad themes of the organisational analysis and the relations and operations of different functions and entities within the organisation, conditions of engagement and participation in IUFRO and gender-related challenges, potential barriers and strategies to improve the conditions. The guide was developed to cover, and deepen, main themes of the organisational analysis and to provide insight on their perceptions on gender-related challenges of e.g. attracting and including more women in IUFRO. The interviews, lasting about 45-60min, transcribed verbatim, and inductively coded and summarised into three themes: 1) Purpose and forms of organisation, 2) Participation and ways in and 3) Gendered barriers and challenges. The results are summaries and situated to the organizational analysis in the conclusion section.

4.3.2 Results

Purpose and forms of organisation

From the perspective of science and research, IUFRO overall is mainly describe as a platform for scientific networking by the interviewees. This setting of networking activities, such as meetings, conferences and various initiatives, provide a basis for meeting people with similar research interests and to building relationships. The social interactions and relationships are therefore seen as the main driver and facilitator of the network and a crucial incentive to engage researchers to, on voluntary basis, participate and contribute to the work of IUFRO. Some of the interviewees also stress this as a good setting for young, early-career researchers to receive mentoring, developing their contacts and carriers. IUFRO can as well provide alternative career developments beyond home institutions/organisations. This is emphasised in situations where only a few people, at best, are working on a specific topic or recognition for work and competence is not received. The wider group of colleagues to interact with both has the potential to enhance the specific and focused knowledge on one topic and to develop individual knowledge based on exchange of diversity of perspectives.

In relation to the general and external purpose of IUFRO, many of the interviewees emphasise its, often solution-focused, aim to provide, and support the development of, science-based information to policy and decision-makers through collaborations - which is a focus and an area that has been growing over the last decades. Although that both the terms network, union and organisation is used in documents and communication, IUFRO is mainly perceived as a network by the interviewees and

its openness and flexibility is emphasised. One of them explains that *“the organization, in my view, is the rules and procedures that enable the networking”*. But they also highlight that the perceptions might differ between different groups, where researchers see IUFRO mainly as a network, while policy makers and partners mainly perceive, and interact with, IUFRO as an organisation or an institution. Based on the latter, this contributes to the challenge that IUFRO is expected to provide input and thoughts on issues with quite tight deadlines, given its lack of structure and processes to facilitate. More precisely, many of the interviewees conceptualise IUFRO as *“a network of networks”*, where one of them explains this as *“networking”* is the key function/practice of IUFRO:

“So, you could take a single Working Party would be a network in itself. And then the Research Group is being networks at another level and they're networking. And then you've got the Divisions and then networking and then across the Divisions they're networking and you've got Task Forces that are networking and the SPDC is networking. So, I think we have a massive network of networks, and I think (...) it's because these are not formal structures. (...). This is massive networking and that's it's incredibly powerful.”

Given that the networking opportunities/structures is perceived as the main function and role of IUFRO for researchers, the interviewee continues:

“Do we need to worry that many people in IUFRO don't know that there's a president? Maybe it doesn't matter as long as the leadership is doing what the leadership needs to do to keep the bigger structure together. It's fine”.

On the other hand, although recognizing the restraints of participation of researchers with less resources, they also stress the openness as a central characteristic of IUFRO, in addition to its flexible nature. One of the interviewees highlight that *“openness, global openness, it is the way of today's world and I think it's powerful. Perhaps IUFRO fits nicely into that space”*. Another emphasis that he/she have had the experience that the last few presidents who do have had a *“very consistent track record of being open, inclusive, participatory, and not only in symbolic terms, but really this is what they stand for us stood for”*. However, the same person also highlights that, in the past, *“these very open discussions were perhaps not so common or not the cultural norm”*.

In general, the networking taking place within the structures, events and bodies of IUFRO is described quite broadly as a social meeting place by the interviewees. In relation to this, a majority of them had a vague conception of the term *“informal networks”* and their potential role and function within IUFRO. A number of them say that they believe that they exist, but that they are *“not aware of any particular ones”*, that they *“don't really track that”* or *“know enough about what they involve because we don't hear about them”*. One of them said that he/she didn't *“see the room for informal activities”*, given that *“IUFRO has a very loose and flexible, but clear, structure”* which provides space for *“formal bodies”*, such as the Task Forces, to raise issues and adapting to changes. While recognising the presence of informal networks, another of the interviewees stressed that:

“I guess there is no society where there are no informal networks. It's not possible. So there is. So, you do have better communication with some people. And that doesn't matter whether they are part of your Division or part of your Task Force or

not. It's just so because you will talk to each other about specific things and you get in contact with each other, just like there are always informal networks."

The same person emphasises that the historical dominance of researchers, actors and institutions from the Global North within IUFRO is *"part of that story and not so much about the informal networks"*. This is explained by that *"they are meeting with each other regularly (...). So, I think that's rather natural. But it's more that. I wouldn't say that this is informal. This is really institutionalized by the history"*. On the openness, another stresses that:

"I would argue that the network actually works rather transparently and openly. And you know, there still are not these kind of shadow groups of people who then informally take decisions before decisions are formalized. So, I would say this is really a remarkable thing about IUFRO, that the network is the network."

Participation and ways in

The perceived purpose of IUFRO seems to be shaped by the interviewee's own experiences and "ways in", and that in turn influences perceptions of what might be issues to address to achieve increased participation and facilitate ways in to IUFRO. One of the interviewees explains:

"In simple terms, how they (early-career scientists) can get involved in IUFRO. And that is something we want to address, for instance, and also through the redevelopment of our website to provide more concrete guidance and information about how this works".

Accessible information and concrete guidance are understood as a key in facilitating engagement, and it is among the interviewees' assumptions that if IUFRO provides the proper information, the organisation is accessible to all. This is accentuated in how the ways to get involved and participate in IUFRO is generally described as a matter of individual preferences and personality traits in the one interested in getting engaged with IUFRO. One of the interviewees argues that it is hard to involve people that do "not trust themselves" or lack confidence "either from the professional side or from the personal side". Reducing the possibilities to take part in IUFRO to a matter of an individual's personal drive or confidence risks masking the structural barriers to participation and the organisational possibility/responsibility to be inclusive to newcomers. One of the interviewees touch up this matter and describes how the leadership can facilitate participation:

"I think their (Division Coordinators/senior leadership) receptivity and, you know, willingness to make extra effort to help people get involved. It varies. Yeah, some people are extremely good at it. Other people I'm not sure how good they are at it"

The interviewee explains how those in leader capacities have the potential to facilitate participation through their receptivity and willingness to make extra efforts, but that the leader's ability to do this varies. The interviewee continues:

"And it really irritates me when I hear about it, especially young scientists, saying: 'I was really interested in such and such a topic. I wrote to them, and I was given the contact for the Working Party Coordinator and it kind of led to nothing'. You know, that's to me terrible".

Seniors within IUFRO failing to be responsive of prospects initiating contact is according to the interviewee terrible and evokes irritation. Another interviewee also addresses the issue that not all already engaged in IUFRO are as open and inclusive as they could be and says in relation to research parties and groups:

“Not all of them, I sense, may be open to kind of, you know, involving new additional people.”

Apart from leadership failing to be inclusive of newcomers to IUFRO, lack of and unequal distribution of resources are put forth as a main barrier to participation and as an explanatory factor to unequal geographical representation of participants in activities and conferences:

“It's easy enough for anybody to be involved just through the online stuff. It's getting to meetings that is really hard for lots of people, especially economically disadvantaged situations. You know, it's expensive to travel around the world, you know, so the opportunities aren't what they should be.”

Participation in relation to these above-mentioned issues is a concern for many of the interviewees. This is clearly something that has been given some thought by the leadership in IUFRO. Related to the geographical imbalance is also the requirement of mastering the English language which is the working language within IUFRO.

Gendered barriers and challenges

In the interviews, most interviewees acknowledge IUFRO as an unequal organisation when it comes to gender, mainly in relation to representation, and express concerns regarding the seemingly persistent gender inequality. The interviewees in general state that gender equality is an important goal for IUFRO and something that the organisation continuously strives for, and the unequal representation of women is mainly explained by the historical background and traditions of IUFRO. Both academia and forestry are historically heavily dominated spheres by men and the effects of that, when these two spheres are combined, are explained by the interviewees to shape the gendered patterns within IUFRO up until now. Changes in these patterns are expected to come naturally and by itself with time, according to many of the interviewees, but not all agree on that. One says:

“I don't think there are obstacles other than structural. So, you know, opening the doors... And the only way that one can do that, I mean, maybe I'm cynical, but you know, I think it has to come from top down [...] I don't think if you just said it'll happen organically, it's not going to happen.”

In this way of reasoning lies an assumption that there are gendered barriers and challenges in participating in IUFRO that needs to be proactively addressed rather than left to the course of time. One of the interviewees more elaborately problematizes the historical aspects of the gendered structures of IUFRO in relation to gender equality:

“I'd say it's part of the historical development. And that about forestry has been in former times a topic which has been mainly written by male people. So that could be one part. But this is institutionalized as well in a way that the from this kind of perspective where IUFRO has started as a white male European network it is sort of repeating itself. It's reproducing itself with the same ideas behind.”

The lack of representation is here assumed to be a gendered barrier to identify and engage with IUFRO, both as members and in time also as office holders, Coordinators or such. The solution that the interviewee suggests is to more consciously adhere to gendered prerequisites and expectations that shapes the possibilities for men and women respectively within IUFRO. One example that the interviewee gives is that communication needs to be adjusted to the situation:

“There is a need for different communication. That's what I have realized that you need in order to get female researcher into this perspective, and we're into this into the different roles of IUFRO. You sometimes need to ask more than one time, and you need to discuss that as well. While others would say, “I think I could do that”. [...] So that's not the same for everybody. And so, I guess we need a need for a different sort of communication.”

The interviewees are in general balancing between the ideal of equal treatment and a perspective where unequal conditions, expectations and possibilities requires a focus on equal opportunities and equal outcomes and hence targeted or customized measures sometimes needed to achieve inclusion.

4.3.3 Concluding discussion

IUFRO constitutes a large network and organisation with multiple levels and actors. From the perspective of inclusion, this creates challenges from several aspects, such as limited transparency, added complexity, and reduced conditions of identifying with the network/organization. This also comes back to the perception, and communication, of IUFRO as a union, a network and as an organisation, which shifts between different perspectives and positions in relation to IUFRO, but also potentially has an effect on how IUFRO is operating. The use of different organizational identities might provide benefits in terms of highlighting strengths in relation to different perspectives and actors, such as researchers or policy makers. But this potentially also adds to the complexity, limits the basis for identification and might have different effects on individuals' commitment and power/influence within IUFRO. Similar to the interviewees, we use the term network more in relation to the grassroots practices and activities of IUFRO, while the term organization mainly is used in relation to its more formalized structures and practices including Working Parties, Divisions, Headquarters and Board.

The recurring conception and understanding of IUFRO as an open network, calls for a discussion on what openness entails. What is the basis for such openness and for whom? Based on the interviews, this can be interpreted as mainly related to the voluntary basis and that there are no formal restriction/barriers for the participation, networking and the organisation. This understanding of openness, and “inclusive participation”, is therefore primarily related to the non-presence of formal barriers for the participation of individual researchers.

The situation that economic aspects and access to resources constitute barriers for many researchers to participate in IUFRO, is something that the leadership of IUFRO is very well aware of. These barriers are targeted through for example the special programmes and other measures targeting economically disadvantaged members. While material barriers are well recognised, other potential barriers, such as lack of identification, are to a high extent unrecognised and unproblematized. Access to the network seems to be heavily dependent on previous relations and networks, as well as resources. This gives that people with engagement and positions within IUFRO could function as “gatekeepers”. It's

often that participation, especially among minorities within IUFRO, needs to be encouraged and supported – both on organizational and on an individual level. This experience highlights a number of potential barriers to access and participation that less represented groups within IUFRO might face. Therefore, it is safe to assume that an unequal representation requires actions for a positive development. Nevertheless, besides material, but also sometimes cultural, barriers, it's mainly individual characteristics, skill and relations that is highlighted to the lack of participation. The possibilities for researchers to participate are attributed to individual traits or characteristics both with regards to the prospecting new member and the established members, or leaders, that these prospects first came in contact with. As a network, IUFRO is greatly dependent on individual researchers and their engagements, e.g. as officeholders – both from the network and organization perspective. It's also dependent on the interplay between formal and informal networking to both support its organizational structure and practices and to develop the network in line with the organizations structure (e.g. Working Parties and Division) and across these structures (also in the formalized forms of e.g. Task Forces). In the interviews, the informal networking is often described as the strength, part of the practice and benefits of IUFRO, and therefore something that is encouraged. However, this also gives that the organizations often lack control and information about one of its main activities/practices. Only looking at the formal network of IUFRO, therefor provide limited understanding of its networking practice, its conditions and the organization as a whole.

The formalized and decentralized structure and size also seems to contribute to a variation in practices between different Divisions, officeholders etc. Together with the tradition and history of different scientific disciplines, this structure and organisation might be a factor that both contribute to the slow, and uneven, progress of including more women as officeholders, but also limits the opening for implementing organisational change. This can be described as an institutionalisation of a gender unequal, or less gender sensitive, practices within IUFRO, which over time has developed into “path-dependency” that is hard to change due to the organisational structure and practice of the network. Within this, the formal and informal relations and practices might support each other in reproducing the status quo and limits change. In implementing change during these circumstances, leadership, from further up in the organisation, with this regard, and to act as role models, becomes more important. Both in assigning relevance to the issue (symbolic), to ensure its role on the organisational agenda and systemic long-term commitment, as well as institutional legitimacy. However, given the present lack of clear relation between the network and the organisation, the formal and informal networks, given the organisational distance between Headquarters/Board and the various working groups, the tools, structures, and awareness/knowledge for implementing change on/in “the network(s)” seems to be limited.

This highlights the need to adapt and relate the implementation of change to the mixed organisational practices and basis of the network(s) and the organisation with its balance between bottom-up and top-down, flexibility and structure. With the conception of IUFRO as a professional network that is based on voluntariness and social relationships, the relevance of information and understanding beyond the primary network within IUFRO seems to become less relevant for the interviewees. This gives that the social relationships of the networks also are seen as the main source of identification with IUFRO, which potentially could constitute a challenge for inclusion and implementing change. Besides identification, the relevance of information, primary about IUFRO, it's structure and

organisation, could be perceived as related to issues of transparency of, and power within, the organisation. As the focus on science-policy interface is growing, and its increasing expectations on IUFRO in these processes, the divergence between structures and practises of the network(s), the organisation and the union/institution is highlighted. Especially within these processes, issues of representation, recognition, influence and transparency is crucial component for anchoring the engagement and the institutional legitimacy of IUFRO.

The first step in improving representation is the awareness of the present unequal situation. In this respect, an awareness of the numerical manifestation of the challenges seems to be present at the top of the organisation. However, there seems to be a need for increased knowledge and understanding with regards to gender unequal organizational and cultural aspects that has an effect on e.g. representation, recognition and participation. Based on that doing the same for everyone does not always mean the same outcome for everyone, this requires a more in-depth consideration of the conditions for participation and identification of different groups of researchers that goes beyond the present groups involved. In general, success in these types of development processes requires a clear vision, clearly defined goals and a systemic implementation and follow-up of actions taken to ensure intended effects and results.

5. Policies and strategies for enhancing gender equality

5.1 Policies for enhancing gender equality and equal participation

Several global policy frameworks set the stage for advancing gender equality through forestry research and forestry research institutions.

In 1966, the United Nations (UN) introduced both the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR) (UN, 1988). Each of these landmark bills of rights specifically protect the rights of women and legally bind state parties to protect women against sex-based discrimination through their legislative instruments.

The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (1979) recognizes gender equality as a human right and is considered the international bill of rights for women (UN, 1979). Signatory governments of CEDAW are legally bound to promote and protect the rights of women and to include gender equality as a legislative priority, ensuring that it is operationalized country wide. Article 14 specifically focuses on rural women: their vital contributions, the multiple forms of discrimination they face, and the urgent need to improve recognition and protection of their human rights.

The Beijing Declaration and Platform for Action (BPfA) (UN, 1995) still provides the most comprehensive guidance for collecting and developing gender-focused statistics at the regional, national, and global levels. The BPfA includes women and the environment among 12 critical areas for action and calls upon governments to collect and develop gender-sensitive databases, including data relating to gendered impacts of environmental degradation.

The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) (UN, 2007) is the most comprehensive international policy framework safeguarding the rights of Indigenous Peoples. It establishes a universal framework of minimum standards for the survival, dignity and well-being of Indigenous Peoples, and expands upon existing human rights standards and fundamental freedoms as they apply to the specific situations of Indigenous Peoples. UNDRIP calls special attention to intersectional marginal identities and highlights the particular needs of Indigenous women, elders, children, and disabled people, outlining measures to ensure that they enjoy full protection against discrimination.

The Sustainable Development Goals (SDGs) (UN, 2015) identify gender equality as one of 17 key focus areas for ending poverty, protecting the environment, and achieving peace and prosperity for all by 2030. SDG5 “Achieve gender equality and empower all women and girls” recognizes that gender equality is a fundamental human right, and a necessary foundation for a peaceful, prosperous and sustainable world. The 2030 Agenda for Sustainable Development, which embeds the SDGs, is critical in its recognition of social, environmental, and economic outcomes as synergistic, and its call on integrated action across these goals.

UN General Assembly Resolution 70/133 (UN, 2016) urges Member States to take action to ensure the full, effective and accelerated implementation of the Beijing Declaration and Platform for Action. It expresses serious concern for gender inequalities within the UN system, especially at senior and policymaking levels, and reiterates the need to achieve gender parity at all levels throughout the UN, with full respect for the principle of equitable geographical distribution.

5.2 Strategies for more gender equal networks and participation

Although there is a perceived increase in the proportion of women students in forest sector higher education, an equivalent increase may not be reflected in the workforce (Larasatie et al., 2020b), even more so in top leadership of forest sector companies (Hansen et al., 2016; Larasatie et al., 2019). Increasing women in the workforce is considered one of the best solutions to attract more young women to the forest sector. However, it is a “circular” dilemma in which the solution is denied by a circumstance inherent in the problem (Larasatie et al., 2020a). Attracting more women should be balanced with retaining women who have been studying and/or working in the sector. A way to support women in the forest sector is through mentoring and networking (Crandall et al., 2020). Here in this article, we aim to provide a brief overview on how mentoring and networking, based on literature review, can pursue a more gender equal participation in a man-dominated, forest sector.

Both mentoring and networking are perceived able to address gender inequality, albeit with different outcomes and means. Mentoring is viewed as an important instrument to dismantle the persistent glass ceiling phenomenon, enabling more women to progress to senior leadership and management positions (Dashper, 2019) through more effectively overcoming career obstacles, understanding organizational politics, and accessing information and resources (Linehan and Walsh, 1999; Ragins and Cotton, 1999). Despite its importance, women have often struggled to access the informal mentoring necessary to provide this progression (Ragins and Cotton, 1999), probably due to homosocial practices, a preference for relations with the same gender (Lipman-Blumen, 1976). The practice may mean that informal mentoring is less accessible for women. For example, women may lack access to places frequented by potential man mentors (e.g., golf, fishing, hunting, and sauna) (Rose Ragins, 1996; Larasatie et al., 2019).

Acknowledging this constraint, many organizations have sponsored formal mentoring programs to support career development of their woman employees (Phillips-Jones, 1983) and overcome gendered barriers (Elliott et al., 2006). However, many of these efforts provide a narrow approach to “fix” women rather than to challenge the underlying gendered structures that continue to marginalize and exclude women (Meyerson and Fletcher, 2000; de Vries et al., 2006).

In a man-dominated sector, women frequently face heightened career obstacles due to stereotype thinking regarding competencies needed for success (Ramaswami et al., 2010) which are invariably, and usually invisibly, constructed to associate the ideal worker as a man (Bruni et al., 2004; Heilman, 2001). This masculine standard has mostly been unacknowledged, resulting in a situation where it is difficult to recognize and challenge gender inequality (Dashper, 2019).

Gender equality initiatives can also be boosted by networking. As a critical factor for individual career progression and success, networking has advantages on exchanging information, acquisition of tacit knowledge, developing alliances, collaboration, visibility, and support (Linehan and Scullion 2008). Individuals who excel at networking generally excel within their organizations. However, the concept of organizational networks is too often associated with old boys’ club or old boy network (Ibarra, 1992) that effectively excludes women, thus limiting their potential (Ehrich, 1994). As a result, there is a need to form a woman-inspired network, to address the experiences of women with the aim for increasing perceptions of belonging and engagement (Crandall et al., 2020).

Overall, for addressing more gender equal participation, it seems necessary to pursue at least three policy strategies. These include the supports of (woman-inspired) networks, the instalment of mentoring programs targeting women, and the requirement of equal opportunities and quota for hiring.

5.3 Actions and policies of IUFRO on gender equality

Although gender has been a topic of research interests since the 1970s, it was first at the world congress in Kuala Lumpur 2000 that the received formal recognition with the establishment of IUFRO research group *Gender and forestry* (125 years of IUFRO, p. 29). However, the issues of gender inequality, or primary imbalance, has mainly been highlighted the last two decades. At the same congress in 2000, a revised version of the IUFRO's statutes, with gender-specific language removed, was adopted (IUFRO Statutes 2019) and since 2001, the statues of IUFRO have been revised six times. The previous Statutes and Internal Regulations was from 1990 and the revision also included the change to general members of the Board "in order to achieve a more equitable representation of geography, gender, nationality and scientific discipline". This later highlighted with the selection of President's Nominees "to strive for a regional, gender and scientific balance" in the Board. Besides this formulation, there has, prior to the new statues of 2022, been almost no consideration of gender in relation to the structure, governing bodies and its representation/composition, nor in the prescribed processes of electing, nomination or appointing responsibilities or positions. In 2022, of Principle of Freedom and Responsibility of Science, advocated by the International Science Council (ISC), a section on the role of the union, from this regard, was include:

"the Union promotes equitable opportunities for access to science and its benefits, and opposes discrimination based on such factors as ethnic origin, religion, citizenship, language, political or other opinion, sex, gender identity, sexual orientation, disability or age."

To promote gender and regional balance in the division coordination and the board, each Division will, on the basis of the 2022's status, from 2024 be led by a team of two Division Co-Coordinator who also are members of the Board. Gender is addressed by stating that "at least one of the two Division Co-Coordinator must be female and/or from a region of the world currently under-represented in the voting Board" (IUFRO Statues 2022, p. 9).

However, besides the statues, the strive for a gender balance, as well as a regional balance, is emphasised in the IUFUR Strategy, as well as external agreements (e.g. within Collaborative Partnership on Forests) related to the different bodies and functions. The IUFRO Strategy, which is reworked about every fifth year, is a central document to develop the network and provide a framework for IUFRO's governing bodies, officeholders and the Headquarter and their work. In the strategy of the first half of the 2010s, it's acknowledged that during the last decade, "the number of IUFRO officeholders increased in all regions. Some progress was made in increasing the share of officeholders that are women. However, there remains a great need to improve the gender balance in IUFRO." (125 years of IUFRO, p. 36). With regards to the Board, IUFRO has also, according to the report *IUFRO 125 years*, made strong efforts to ensure a geographically and gender balanced composition of the Board (ibid. p. 103).

In the latest strategy; the *IUFRO Post-2020 Strategy*, the Vision, Core Values and Institutional Goals was modified and Diversity was included as one of the four core values. The value is described as:

"IUFRO respects and embraces diversity in terms of gender, culture, ethic or social origin and any other aspect of personal status, and rejects discrimination in all its forms. It includes perspectives and approaches from all parts of the world."

In the Strategy Action Plan, which support the implementation the Strategy and monitors progress, the topic of gender, as well as regional, balance in participation is dealt with under the second goal;

Network Cooperation: Improve Communication and Embrace Diversity, and the second objective; Further diversify participation in IUFRO structure. This objective is motivated by:

“The (balanced) participation of scientists on equal terms (gender, culture, age and geography) constitutes a prerequisite for the relevance and quality of the science collaboration in IUFRO. It allows for viewing research topics and the application of forest science from different perspectives.”

Out of the 55 actions in the Strategy, three actions are targeting this objective:

- 29: Significantly further improve gender balance of Division, RG and WP Coordinators,
- 31: Improve geographical and cultural diversity of Division, Research Group and Working Party officeholders,
- 32: Encourage more activities and events hosted in less-well-represented regions.

The aims of these three actions are an increased representation of women as officeholders, number and proportion of IUFRO officeholders from Africa, Latin America and other underrepresented regions and number of meetings held outside of North America and Europe. Only the last aim has a specific target with an increase by 10% during the five year period of the strategy. The implementation of these three actions is mainly located on division, research group and working parties and the coordinators are set out to annually report to the Board, with a summary/compilation on each level starting at the research groups and working parties. However, the feedback in the opposite direction seems to be limited.

To summaries, the primary focus of actions and policies are on gender balance in representation and support (e.g. GFEP and SAP) - similar to the focus on regional balance. However, no direct actions or initiatives focusing on a wider approach to gender equality, such as conditions for men’s and women’s participation in general. The issues of gender balance among division coordinators, and their representation in the Board, has been highlighted with the introduction in 2024 of two Co-Coordination for each division. In difference to previous strategic actions, this more directly states that “at least one of the two Division Co-Coordination must be female”, which highlight the underrepresentation of women in comparison to the more neutral formulations of gender balance.

The implementation and the actions take to pursue gender balance varies between different areas and entities of IUFRO. These variations, and their room and basis for implementation, contribute to the varying gender (in)balance within IUFRO. As positive examples, both the support of the Scientist Assistance Programme (SAP) and the representation of the Global Forest Expert Panels are programmes with gender balance. Although that the gender balance of the provided support of SAP can be seen as most crucial, it’s also important to reflect upon the gender balance, or lack of, in the applications received by the programme. However, both due the limited specified actions addressing gender equality/balance and the variations in implementation and lack of follow-up of these actions and policies, it’s hard to assess their effectiveness. Although, the assessment are normative and therefore dependent on the goals, objectives and focus of the actions taken and how these are formulated. Besides the formulation on gender balance, which is neither defined, there seems to be a lack of strategic targets and the general formulations contribute to less specificity about challenges and implement as well as difficulties in following up. Examples of this is the action to “significantly further improve gender balance” among coordinators, while the objective to increase the number of meetings held outside of North America and Europe has a target of 10% during the five year period of the strategy.

An exception to the primary focus on gender balance, could be the approval of the proposal of this Task Force on gender equality in forestry in 2019, which sets out to discuss and deepening the understanding of gendered participation in IUFRO.

6. Recommendations for IUFRO Actions on gender equality

IUFRO is a network that relies upon voluntary contributions by members, both as individual researchers and organizations. In terms of career development and research collaboration, IUFRO, and its organizational infrastructure, constitute a powerful platform. Throughout the past, this has built a positive reputation and legitimacy in the international forest research community, among stakeholders and policy makers.

In an international environment where gender equality and inclusion are receiving greater attention, and where an increasingly diverse forest research community is investigating an expanding variety of subjects, IUFRO needs to demonstrate the importance, awareness and responsibility of these issues with regards to the network, its meetings, programs etc, to be able to maintain its role as the premier international forum for forest research. For example, the vast number of IUFRO activities constitute crucial focal points in implementing change, promoting gender equality and inclusion and mobilising the network for a positive change. These recommendations seek to take advantage of the strengths of the network in engaging and mobilising its members.

IUFRO functions and operations can be grouped in four main categories, each of which can contribute to gender equality (and equity more broadly) in distinct but complementary ways:

IUFRO Management and Headquarters

IUFRO Divisions, Research Groups, Working Parties and Task Forces

Congresses and other activities and events organised under the IUFRO banner

IUFRO awards and honours

The work of this Task Force has enabled us to recommend actions that are well-supported by evidence, that have been effective in other contexts, and that appear to be feasible within IUFRO's operational structure. However, the Task Force has also identified other actions that appear to be necessary and appropriate, but where we do not yet have sufficient evidence or information to make recommendations. In these cases, the Task Force recommends that IUFRO establish a committee to develop a Policy and an associated Action Plan.

IUFRO has already implemented a range of measures to improve regional representation, with varying levels of success. Gender equality measures should be harmonised with regional representation measures where possible, but the issues and challenges are not identical and appropriate actions will be needed. The recommendations of this Task Force are focused on gender equality, but the Task Force recognises that there are other barriers to inclusion that go beyond, or intersect with, gender. These recommendations should therefore be understood within a broader approach to equity and inclusion.

6.1 IUFRO Management and Headquarters

1. Appoint a Board member as an all-IUFRO champion and lead for Gender Equality and Inclusion work (GE&I).
2. Mainstream gender equality and inclusion in the IUFRO Statutes and the IUFRO Strategy, specifically:
 - a. *Establish gender equal representation targets at all levels of representation within IUFRO to be met by the end of the next IUFRO Strategy.*

- b. *Implement actions and monitoring to support the gender representation targets.*
 - c. *Mainstream gender equality assessments in all major board decisions and follow ups, e.g., gender budgeting⁶.*
 - d. *Establish a gender sensitive and reflexive all-IUFRO Mentorship program for early career researchers.*
3. Establish a Gender Equality and Inclusion Committee, consisting of appointed GE&I Board Member (chair), Vice-President of Divisions, 2-3 gender experts, a IFSA representative and GE&I officer, to develop an IUFRO Gender Equality Policy and an associated Action Plan to provide objectives and goals, means of action, and ways of monitoring the development of gender balance, inclusion and gender equality.
 4. Appoint a gender equality and inclusion (GE&I) officer at the IUFRO Secretariat with the responsibility to promote equity and inclusion throughout IUFRO and to report on progress. Specific tasks should include:
 - a. *Convene and secretary of the Gender Equality and Inclusion Committee.*
 - b. *Coordinate an Equity and Inclusion Forum to share practices, experiences, organise training and internal workshops.*
 - c. *Develop, support and coordinate the all-IUFRO Mentorship program for early career researchers, e.g. by arranging training on gender sensitive, inclusive and reflexive mentoring.*
 - d. *Support and coordinate the work of gender mainstreaming and the implementation of the Gender Equality Action Plan.*
 - e. *Monitor the gender representation at different levels and entities of IUFRO.*
 - f. *Monitor the distribution of funds and other organisational resources to ensure avoid perpetuating inequalities.*
 - g. *Improve the understanding of networking within IUFRO to better support more gender equal and inclusive participations and identifications.*
 - h. *Support the Massive Open Online Course (MOOC) Gender Equality, Diversity & Inclusion in Forestry-related Sectors (ForGEDI) to develop gender, equality and intersectionality in forest research for students and early career professionals/practitioners.*
 - i. *Collaborate with IFSA in providing trainings and discussions on gender-related conditions of forestry research and education.*

6.2 IUFRO Divisions, Research Groups, Working Parties and Task Forces

1. Establish gender equal representation targets for all Coordinator and Deputy coordinator positions within each Division to be met by the end of the next IUFRO Strategy.

⁶ Gender budgeting "incorporating a gender perspective at all levels of the budgetary process and restructuring revenues and expenditures in order to promote gender equality", EU (2005) *Final report of the Group of Specialists on Gender Budgeting*. Strasbourg: Council of Europe. p. 10.

2. Identify a champion and lead for Gender Equality and Inclusion work within each Division, who will coordinate and monitor efforts and progress within the Division (based in the Action Plan). Specific tasks should also include:
 - a. *Contribute to, and take part in, the Gender Equality and Inclusion Forum.*
 - b. *Support and mentor officeholders on GE&I and leadership.*
 - c. *Organise, with the support of the GE&I officer, training and internal workshops to promote gender equality and inclusion in the work of research groups, including nomination procedures for officeholders and awards.*
3. Encourage IUFRO member organizations to provide gender disaggregated information on the “research pipeline” of students, researchers, and research leaders.

6.3 Congresses and research meetings organised under the IUFRO banner

1. Extend the requirements for organizing IUFRO meetings to include guidance on gender equal representation and participation, measures, monitoring and reporting.
2. Establish an IUFRO Working Group to review the organisation of IUFRO congresses and research meetings and to develop guidelines for ensuring gender equal representation and participation. This Working Group would include members of organising committees from a variety of recent congresses and meetings, and gender and inclusion experts. The Working Group should consider a wide range of options, including:
 - a. *Identify barriers to, and measures to promote, gender equal representation, participation and inclusion in procedures of submitting session proposals and abstracts.*
 - b. *Requirement for gender equal representation of scholars in the Congress Scientific Committees and among session chairs, presenters and panellists.*
 - c. *Hybrid events that allow for face-to-face and virtual presentations and participation with low (or no) fees for online attendance.*
 - d. *To establish mechanisms and procedures to require funding and assistance for women.*
 - e. *Inclusion of family friendly resources, health and safety considerations in logistical planning and information.*
3. Develop and implement a standard gender equality and inclusion survey as part of the registration process for IUFRO congresses and research meetings, with automatic compilation of results being transmitted to both organizer and IUFRO Headquarters. This will also include a follow-up survey to assess the participation and meeting organisation and procedures.

6.4 IUFRO Awards and Honours

1. Establish an IUFRO Working Group to review the criteria and nomination processes for all IUFRO awards and honours to promote gender equality and inclusion. This Working Group would include past and present members of the IUFRO Awards and Honours Committee and gender and inclusion experts. The Working Group should consider a wide range of options, including:

- a. *Set gender-based requirements for the nomination procedure of the different awards and honours.*
- b. *Ensuring that criteria and evaluation processes are gender equal.*
- c. *Ensuring gender equal representations in the IUFRO Awards and Honours Committee.*
- d. *Training for Awards and Honours Committee on unconscious bias in selection processes.*
- e. *Establish an IUFRO Distinguish Service Award for efforts and work to promote gender equality and inclusion within the network.*

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