Article

Women's Woodland Owner Network: A Comparative Case Study of Oregon (the United States) and Austria

Pipiet Larasatie [1,*] [iD], Dagmar Karisch-Gierer [2] and Alice Ludvig [3] [iD]

1   Department of Wood Science and Engineering, College of Forestry, Oregon State University, 119 Richardson Hall, Corvallis, OR 97331, USA
2   Forest Training Centre Pichl, Rittisstraße 1, 8662 St. Barbara im Mürztal, Austria
3   Institute of Forest, Environmental and Natural Resource Policy, University of Natural Resources and Life Sciences Vienna (BOKU), Feistmantelstr. 4, 1180 Vienna, Austria
*   Correspondence: pipiet.larasatie@oregonstate.edu

Abstract: Gender equality, as a preferred social norm based on both ethical considerations and legislative demands, can be boosted by networking. However, the concept of organizational networks is too often associated with old boys' clubs or old boy networks that effectively exclude women, thus limiting their potential. As a result, there is a movement to form women-inspired networks, to address the experiences of women with a goal for increasing their perceptions of belonging and engagement. So how do such networks operate in practice? This research focuses on the organizational differences and commonalities in two women's woodland owner networks, one in the US and one in Austria, in order to understanding how participation in networks influence the advancement of women in the forest sector. Based on expert interviews, we found that both cases well reflect current networking potential for strengthening the capabilities of women engaging in network activities. Regardless of country women in similar circumstances tend to have similar networks. Yet, there are some differences even among these organized networks operating with similar targets. Results also show the limitations of sole networking approaches for the enhancement of women's positions in the men-dominated forest sector. We suggested more action in terms of active equality policies, such as mentoring/networking programs, family friendly policies, and quota/sensibilization measures for boards and selection committees to increase the gender balance in the sector and its related industries.

Keywords: women woodland owners; women landowners; women in forestry; gender equality; gender inequality; advancement of women

1. Introduction

Generally presented as a preferred social norm based on both ethical considerations and legislative demands, gender equality has been highly encouraged in recent years. For instance, The United Nations Sustainable Development Goals (SDGs) for 2030 call out achieving gender equality and empowerment of women [1]. However, a study in Sweden showed that, although there are simultaneous efforts to increase gender equality in the forest sector, the industry has still been associated with a blue-collar masculinity and macho-masculinity workplace culture [2].

In early 2018, a few months after the actress Alyssa Milano started a conversation that grew into the #MeToo movement, the U.S. forest sector was shocked with claims of sexual misconduct against the head of the U.S. Forest Service [3]. The chief stepped down after nearly four decades with the agency. Similar accounts have been made in Sweden [4]; and inspired a wide range of public discussions as well as efforts to combat sexual harassment in the Swedish forest sector [5], starting from its forestry education onwards [6].

Although increasing women in the workforce is considered one solution to improve gender equality in forest sector, it is a "circular" dilemma in which the solution is denied by a circumstance inherent in the problem [7]. Attracting more women should be balanced

with retaining women who have been studying and/or working in the sector. As a critical factor for individual career progression and success, networking has advantages on exchanging information, the acquisition of tacit knowledge, developing alliances, collaboration, visibility, and support [8]. Individuals who excel at networking generally also excel within their organizations.

However, the concept of organizational networks is too often associated with old boys' clubs or old boy networks [9,10] that effectively exclude women, thus limiting their potential [11]. As a result, for example in a U.S. university, there is a movement to form a women-inspired forestry network, to address the experiences of women with a goal to increase their perceptions of belonging and engagement [11].

In a hierarchical system with a low proportion of one gender; women foresters, professors, and students are frequently regarded as "representations of women in the sector" or "tokens" and not as "true professionals" [5,12,13]. One reason might be that forestry as well as its base, the natural sciences, are not "gender-neutral" [14]. Hence, it is of utmost importance to look at the women who have formed their own networks in response to such conditions. We chose two distinct settings (i.e., the United States/U.S. and Austria) to study the contextual backgrounds, fundamental goals, barriers, and fostering factors as well as their future prospects.

Utilizing expert interviews, we examine women's woodland networks in the U.S. and Austria with a research question: How do the organizational differences and commonalities of both networks influence the advancement of women in the forest sector? This question is geared toward the process of changing the social order that is commonly built on the dominance of men and is answered through perceptions of the principal/leading network actors.

The paper is structured as follows: First, we outline our research context, theoretical background, and our methods. Then, we present the results of the two case studies. We discuss our findings regarding the insights from the two cases on advancement of women in the forest sector. The conclusion section provides recommendations in terms of research gaps and possible future research directions for policy and practice.

2. Theoretical Background

Although historically women have played various important roles in forestry [15], there are persistent gendered stereotypes of women being less competent in forestry professions [16]. One of the reasons may relate to their limited access and/or their exclusion from informal interaction networks [9,17]. This barrier has been perceived as halting women's career development in forestry [18].

Based on homosociality theory, forestry—perceived as a men-dominated sector—has a strong masculine network culture [19]. "Homosocial" here is defined as preference relations by choosing the same sex [20]. This term should be distinguished from "homosexual", a term referring to erotic sexual interaction between members of the same sex. The basic premise of this theory suggests that men prefer to interact (e.g., leadership, networking) with other men based on a pragmatic recognition that men control a lot of resources (e.g., economic, political, and legal) and dominate powerful positions in social institutions [20]. However, there is also a marginalization of men who are perceived as incapable of meeting standards of the homosocial network.

Although homosociality is considered problematic, since it is based narrowly on sex role theory [21], this concept is in line with the homosocial reproduction view, suggesting why leaders (refer to men) are selected based on social criteria due to a high pressure for social certainty and conformity [22]. The selection can be mainly based on personal networks and, therefore, lacks objectivity [23]. Due to masculine senior management cultures and traditional performance assessments, men will be more likely to be selected because they have more access to information and personal endorsement. This practice is also called male gatekeeping, a crucial networking practice in leadership recruitment [24].

The mechanism of men gatekeepers can be associated with a "similar-to-me" effect [25] or homophily in which similarity breeds connection [26]. Communication and relationship between similar people occur at a higher rate than among dissimilar people [26]. As a result, the terms "old boy networks" or "old boys' clubs" exist, which refer to an exclusive network of men who use their positions of influence to help other men who share a similar social background [27].

The homosocial networks, as suggested by Holgersson [28], have redefined professional competencies and criteria for choosing senior leadership. Acts that only favor one specific gender will result in token practices. "Token" is a term referring to minority representatives of their gender in organizations where they are often treated as symbols rather than individuals [22].

Gender research finds that, although token men often appear to benefit from their token position [29], token women have opposite experiences. Highly visible token women feel pressures to prove their professional worth as compared with their male peers [22]. During their integration into the organization, token women typically experience isolation, stereotyping, and challenges to climbing the management ladder [22,30]. These negative findings are confirmed by studies on various organizational settings, such as in forest sector [12], policing [31], and construction [32].

Successful networks that aim at enhancing information and knowledge exchange will, on one hand, strengthen the capacities of its members [33]. On the other hand, under certain conditions, the networks may lead to strengthening the forest sector itself, due to the use of enhanced and active participation from groups of formerly neglected actors [34,35].

Because of the promising positive contributions of networks, women in the forest sector feel an urge to form women-inspired networks aiming to address their inequality experiences and to increase their perceptions of belonging and engagement. As there are some women networks that have emerged in different parts of the world, we aim to investigate how organizational differences and commonalities of two networks in the U.S. and Austria influence the advancement of women in the forest sector. We answer this question through perceptions of the principal/leading network actors.

3. Research Context

3.1. State of Oregon, the U.S.

As a state in the U.S., nearly half of Oregon (approximately 12 million ha) is forestland [36]. The largest portion of Oregon's forestland (64%) is owned by government. While 22% is owned by large private landowners (>/= 5000 acres/2023.4 ha) and 12% is owned by small private landowners (<5000 acres), the rest (2%) is Native American tribal forestland.

The landowners in Oregon are still dominated by men [37]. However, based on 2013 and 2018 survey data, there is an increasing number of women landowners (from 18% to 25%). Compared to U.S. data, these compositions were the same in 2013 but different in 2018. In 2018, there were only 20% of women landowners across the U.S., 5% lower than the number in Oregon.

3.2. Austria

Austria has around four million ha of forest cover in 2016, which is 48% of its land cover. Around 85% of Austria's forests are in private ownership. In total, around 54% of the forest area are owned by small-scale forest owners (<200 ha), 31.2% belongs to large-scale forest owners (>200 ha) and 14.8% belongs to the state.

The number of women forest owners as of 2013 was 43,606 (including shared ownership, the co-ownership of a women and their spouse) and amounted to 31% of all forest owners in Austria. According to the Forests in Women's Hand Status Report, the share of sole women forest owners in Austria was 23% (39.643 in total) who owned a total of 440.685 ha of forests [38] (p. 293). The European average share of female forest owners is 31% [39].

4. Methods

4.1. Comparative Framework

Comparative research designs in social sciences use observation rather than models or exposure and treatment in groups and control groups, known from scientific (laboratory) experiments. Yet, the founders of comparative research had such experiments in mind [40,41]. The "different treatments" had to be elaborated by the circumstances and selection of cases. Most studies are based on the description and analysis of a small number of selected cases [42] and very often employ a strategy based on their similarities and differences [40,41].

In the present paper, the units of analysis (the major entities of the study) are two organizations [43]. We conceptualize two women's woodland networks within the most similar system approach: examining their genesis, goals, and fostering and hindering features, as well as their future plans. The networks are conceptualized as distinct units from which data have been gathered, while the comparative framework serves as a base for elaborating on their similarities and differences. Our case-based approach focuses on organizational differences and commonalities of the two networks with respect to how they support the advancement of women in the forest sector [44]. In such an approach, contextual local factors are considered to cause different influences in the two cases. For example, any dissimilarities (e.g., funding support sources) may explain why decision-making processes are different. This allows us to draw general inferences on women's networks by comparing the two case studies.

4.2. Study Participants and Procedures

The methods applied for this research were modestly adapted from available resources: we used literature analysis for our conceptual framework and conducted semi-structured qualitative expert interviews with the principal founders and current leaders of both networks. The purpose of the selection of interviewees was not to collect a representative sample of stakeholder positions from a large number of stakeholders (e.g., network members) directly. Rather, the purpose was to learn in depth about the process and history of the cases with a focus on the main founding and leading figures who initiated and subsequently shaped both networks. "Saturation" was thus achieved [45] because our respondents were the most knowledgeable and important persons for such in-depth interviews. All interviewees were selected based on their knowledge of the network formation process and how important they were (the role they played as initiators) for developing and leading the networks.

From the literature analysis, we derived the following analytical criteria for the comparative analysis of the interviews:

1. Conceptualization of the network [9,17]
    - Gender Purposes: Motivation, goals, and objectives for creating the network
2. Maintenance of the network [46,47]
    - Support Factors
    - Hindering Factors
3. Output on advancement of women through the network [48,49]
    - Activities
    - Future Prospects

While there is only one network available in Austria, there are three women's networks in forestry in Oregon: WOWNet, Women in Wood (WIW), and Oregon Women in Timber (OWIT). We chose the WOWNet due to its demographic and member target. The WIW was originally initiated in Canada. While OWIT, although it is in Oregon as well, is dedicated to forest resource education without the necessity of being forest landowners. Additionally, WIW and OWIT are focused on timber and wood products rather than forest management.

We conducted three qualitative semi-structured expert interviews with the founders and leaders of both woodland networks (here we refer as: US 1 and US 2 for our U.S. respondents and AT 1 for our Austrian one). As the founder of the Oregon U.S. network, US 2 was also its leader for quite some time before being succeeded by US 1. While AT 1 is the founder as well as the current leader of the Austrian network.

Since the interviews were carried during the COVID-19 pandemic in early 2021, we utilized an online, video call platform with recording function. The method followed the principles of qualitative interview guides with open questions and open answers [50,51]. The questions were formulated to understand the genesis of the networks, their main intentions, support and hindering factors, challenges, membership compositions, activities, and future plans [52].

The interviews took from 30 min to one hour, all were recorded and subsequently transcribed [45]. Each interview resulted in 10–35 typed pages of verbatim transcription. For the Austria interview, the transcript was translated from German to English.

We performed content analysis by analyzing the transcripts according to the criteria outlined above and focusing on the content rather than semiotic expressions during the interview relationship [53]. Because of the small number of interviews, we used Excel sheets instead of NVivo software to thematically analyze, based on criteria developed from the literature analysis.

Here, we interpreted our respondents' opinions and subjective perspectives. In other words, we do not regard them as objective judgements but as expert opinions for detecting strategies and patterns on the advancement of women in the forest sector. It seems necessary to remark at this stage that all validation of the opinions is subjective, and experts are often biased, an effect called "the specialist expert bias" [54]. Accordingly, experts tend to include their own wishes and utopianisms into their estimations of future developments and regard their own field of expertise as the most important and relevant for the future. Both are considered a human cognitive effect.

For our research, it implies that the expressions and opinions of the three interviewees on one hand merit special regards, otherwise the interviewees would not have been chosen as principal informants. On the other hand, we are aware that their expressed standpoints are depending on the information at current times. This may bring a consequence if we repeat the same inquiry (e.g., after some years), the results may show different patterns.

5. Results

5.1. Conceptualization of the Networks

5.1.1. WOWNet in the U.S.

The WOWNet (Women Owning Woodlands Network) was initiated by several women woodland owners and the Oregon State University (OSU) Forestry and Natural Resources (FNR) Extension program coordinator in that time (Year 2005) (US 2). The current network coordinator is also an OSU Extension employee (US 1). OSU is a land grant university whose mission includes taking the knowledge discovered by research being carried out at the institution to the people who will use it on the ground (in this case, women small woodland owners) (US 1). The coordinator notices the biggest differences between men and women owners are the confidence to manage their own woodland (US 1). During mixed-gender forest management Extension workshops, there were fewer women than men who participated (US 1). Women who came usually stayed in the back, bringing cookies, or knitting (US 2).

> "I had these opportunities as the only female in the group at the time to have these side conversations with some of the ladies. They could sometimes be a vulnerable population, especially [with issues] . . . like spousal death, and . . . shady shyster loggers. They felt unrecognized and they did not feel like they could speak up".
>
> (US 2)

Women landowners were often uncomfortable asking forest management questions in mix gender events (US 1). These women felt ill prepared and that they were not important participants (US 1). They cite lack of knowledge and experience as the key reasons for their hesitation to participate in traditional forestry related workshops (US 1). As a result, they felt a need to have their own group where women of all skill levels feel comfortable sharing and learning from each other (US 1). Out of this idea, the steering committee, comprising women woodland owners who had expressed interest in starting a women-centric network around forest management, was formed in 2005 (US 2).

The WOWNet is a peer learning network with a core value of emphasizing knowledge, backgrounds, and experiences of women who are members of the network (US 1). As mentioned by our respondent, the network has three goals: (1) to recognize the role of women landowners, (2) to create safe educational opportunities for women, and (3) to give an opportunity to network and connect with others in similar circumstances. The key is to provide "a no judgement zone" (US 2). Specifically, the objectives are:

> "*(a) to recognize the growing number of women taking a wide array of active woodland management roles, (b) to raise basic forestry and decision-making skill levels among women woodland managers through hands-on educational opportunities, (c) to support and increase women's access to forestry-related resources, and (d) to encourage communication among Oregon's women woodland managers through the development of statewide and local networks*".

(US 2)

Utilizing education, the network aims to empower women to make management decisions on their property (US 2). This is achieved by creating a safe learning space, utilizing hands-on teaching techniques, and placing a high value on participant experiences (US 2).

The network started as small core of individuals conducting "pilot sessions" (US 2). Each year, numerous WOWNet workshops are offered throughout the state of Oregon (US 1, 2). The locations of workshops are determined by the level of interest from local women and workshop topics are established by the interests of that local group (US 1). At its apex, there were 36 local sessions in a year in nine different regions throughout the state (US 2).

Based on its motivation, the network is only open for women as individuals (US 1). While there are two other existing women's forestry networks in the area, the WOWNet itself has over 300 women members in 14 of Oregon's 36 counties (US 1). The other two networks in Oregon, "Oregon Women in Timber" (OWIT) and "Women in Wood", are also open only for women (US 1).

5.1.2. Forstfrauen in Austria

Two years before WOWNet was established, a group of women in the forestry and wood industry in Austria founded *Forstfrauen* (in English: Forestry Women). This network was initiated by two women who connected at a meeting of Austrian forest management leaders. At that time, one of them was employed as project manager in technical training and education for forest managers (*Forstliche Ausbildungsstätte Pichl*) and the other was responsible for Public Relations of the Landowner Association "*Land und Forstbetriebe*" (L&F).

The Austrian network leader notices no huge differences between men and women forest owners in managing their woodland. It is mainly only the small number of women who are present and visible that makes the differences apparent. These women rarely meet other women in their "mixed-gender" meetings at their workplaces. Hence, the network serves the purpose to create a women's "space", so that there are not only a few women pictured on the scene. The purpose is to build alliances as well as to strengthen companionship and cohesion amongst women in a men-dominated sector.

> *"The main activities are to provide members with information. So, if there is anything that is relevant to forestry women, job postings or events that are interesting, then we send it out. We organize a seminar for our members every one, two, or three years"*.
>
> (AT 1)

They provide seminars, for example, offering coaching for leadership roles or training on communication. One important factor is that the seminars are held by other members from the network who are professionals in their fields. Sometimes, there is a participation fee to join the seminar (e.g., a daily workshop) where the trainer receives a fee. However, according to the interviewee, the fee is mostly discounted. Talks, shorter presentations, or podcasts are conducted on a volunteer basis. The information activities are spread through newsletters via an open mailing list, which means that the members can reach and contact everybody in the list.

Different from WOWNet in the U.S., the membership is not only for women nor forest owners. According to the network founder, it is important to open the network to all stakeholders. If the network is only open for people with the "corresponding" background and formation, the member could "be counted with one hand" as "Austria is too small for this" (AT 1). This was the first reason to open it up. The second reason is that support is needed from everybody, and some come from completely different backgrounds. These people may not have forest property and apparently "some happened to be men" (AT 1). Therefore, the membership is open to not only the whole Austria but also to overseas members, both women and men (as of August 2021, the network has five men members). At the time of data collection, with only itself as the only women's forestry networks in the area, *Forstfrauen* has 134 members, including members from Germany and the U.S.

5.2. Maintenance of the Network
5.2.1. WOWNet in the U.S.

WOWNet is attractive due to its peer-to-peer component (US 1). Women landowners can have a space to share ideas although they have different management objectives (US 1). These women feel "camaraderie" (US 1) amongst other members.

> *"In WOWNet, they find their people, . . . who are also weirdo, tree loving ladies"*.
>
> (US 1)

As a program, WOWNet is housed at OSU with the FNR Extension team (US 1). However, all funding comes from outside sources (US 1). In fact, the recent coordinator dedicates her job to support WOWNet (US 1). This is unique across women's networks in the country (US 1).

WOWNet is supported by the Oregon Forest Resources Institute (OFRI), an agency aiming to support and enhance Oregon's forest products industry by providing forest and forest management education programs (US 1). In addition to support from OSU and OFRI, WOWNet has been supported by the Oregon Small Woodland Owners Association (OSWA) (US 2). Interestingly, OSWA was not initially on board with the idea of an all-women network (US 2). Our respondent, who is also one of the WOWNet founders, explained that the association had a concern about decreasing membership (US 2).

> *"The Small Woodland [Owners] Association was at first not on board because they were afraid we were going to take members from them [. . .] and I promised them that they would have more members as a result of this program . . . and once they saw you know, we invited some of those folks to some of our Women Owning Woodlands network programming, and they saw . . . how engaged, and excited, and how much fun, and how much learning was happening. I had some of my male forest leaders in the state write articles in support of the Women Owning Woodland Network . . . and yeah, so I think it's a not issue anymore . . . so in what way do they support the network is financial support, in its marketing support, . . . or recommending, you know, if a forestry consultant meets a brand-new female landowner, they recommend the program"*.
>
> (US 2)

Despite its success story, respondents have identified at least five challenges that the WOWNet has faced (US 1, 2). First, as a statewide program, there is only one statewide coordinator who faces long travel distances, especially to rural areas. Second, although the network has a funding sponsor, the budget has been cut for at least the past three years. Three, there is a challenge to promote the programs. Four, there is limited interest in serving in a leadership role within the network, probably due to burnout factors. Lastly, the pandemic has created a great barrier to hosting events in person. With the core focused on peer-to-peer learning, the coordinator felt that the "space is hard to [be] recreate [d] virtually" (US 1).

5.2.2. Forstfrauen in Austria

The network is open to "all persons who have a connection to forests" (AT 1). This includes men and women from other professions, some owning forests, others not. It is entirely funded by membership fees, which are 25 EUR per member per year. Although for students, the fee is 12.50 EUR per year (50% cheaper). This may not seem to be a lot of money, but in the words of the interviewed founding member, "it is more than enough." (AT 1).

If money is needed (e.g., for bigger events), then sponsorship is easy to be accessed due to the good contacts of the board and the members. According to the interviewee, this is much better than depending on grant or project funding, which are not designed for the needs of the network. Her own work is voluntary, but she admits that in the beginning, she worked too much for it. Since then, she has learned to actively engage the other women and ask them directly to contribute. Although at first "some might have been shy or thought that they could not make a valuable contribution" (AT 1), this has changed. Furthermore, the board is actively screening members who can offer help. They organize yearly excursions and change provinces for its location. Hence, every year, women from local areas have opportunities to organize these events.

An identified challenge in the Austrian network is "the growing number of members today" (AT 1). Although it may look nice, the growing numbers may endanger the network in the sense of losing its benefit and quality of a "network" where everybody knows everybody. Before 2020, the network had 80 members. During the latest phase in 2020 when membership grew to 100, it started to be more difficult to have an organizational overview. This may be due to the COVID-19 measures and the impossibility of holding meetings other than online, thus eliminating face-to-face interactions for new people.

According to the interviewee, there are generally no hindering factors in the network. She further explained that the monetary situation is under control as the network has support from its own members. The network is also well connected to other networks, as well as public and semi-public institutions, which is useful for synergizing and acquiring sponsorship if needed. Despite these statements, she mentioned that it would be better if there were more engagement, especially among members.

Due to its rapid growth (from 45 members in 2003 to 134 members in December 2021), there is a regular online "talk" that helps to shape the sense of belonging to the network. This sense must be maintained to strengthen future networking. The talks are approximately 60 min and take place every few months, with a specific topic presented by one of the members. This works very well, as the members use their existing knowledge for these "talks".

5.3. Output on Advancement of Women through the Network
5.3.1. WOWNet in the U.S.

Both respondents agree that the peer component is the most important part of the network (US 1). To maintain the connection, newsletters are sent out regularly (US 1). Since every individual may have different needs in their forest management journey, the newsletters are written purposively to hit specific areas (US 1).

> *"The women are being recognized, and they feel more . . . there's an increase in confidence . . . in what they're doing. They are accessing technical assistance, financial assistance, and making decisions, and taking action on their property as a result. So, I think those are success factors. I think it opens a door to a cultural shift within the larger community at the state, and that I consider a success".*
>
> (US 2)

To overcome the travelling issues due to only one coordinator for the whole state, the network utilizes local hosts (US 1). During the pandemic, there were no travelling issues since everything was online (US 1). The online format also allows the network to reach a wider audience, including attracting more younger women (US 1). However, the intimacy of in-person meetings is difficult to recreate virtually (US 1). Therefore, in the future, the network coordinator considers offering both in person and virtual programs (US 1).

> *"I think that WOWnet is just going to continue to grow over the next five years or so . . . I've started to see a lot of younger people coming into the network. Women who have bought property with their spouses at a younger age. That's not something that has been historically traditional. Some daughters or granddaughters who are coming in, who are taking over for their parents or grandparents".*
>
> (US 1)

5.3.2. Forstfrauen in Austria

The best perceived success strategy is an open mailing list, so that every member can always contact the other members. The second biggest success factor according to the founder is to have members who seem to be "the right women in the right place" (AT 1). The members from the early days were considered as the most important and influential women in the sector. One of them, previously, had been the Environmental Minister of the Federal Republic of Austria. Therefore, the "unique selling" position is the multiplication by prominent members who are in leading positions. This supports other women in the network, such as students and younger women, and creates opportunities for positive mentoring.

Further, the membership structure enhances the activities of the network because there are many members who have professional backgrounds who provide courses and technical know-how to others, such as coaching for leadership roles or media communication. The members offer the courses for reduced fees. There is also a participation fee for the participants, but otherwise the work in the network is on a voluntary basis.

The interviewee has one wish for the future of the network: "For the last two or three years, I wish to make a strategy seminar with and for the network." (AT 1). Since the beginning, the board has always responded that there is no need for this, and the network is thriving well as it is, but the interviewee thinks that within the next two or three years, strategy seminars will start to take place. Maybe there is the necessity for new guiding principles and to discuss and prepare a follow-up and the future leadership of the network. Since May 2021, the network has been engaged to create an umbrella network with other European networks, which also will strengthen them in regard to eventual future challenges.

6. Discussion

Based on their perspectives of the network purposes, WOWNet and *Forstfrauen* follow different strategies for addressing the social order of homosociality and gender inequality in the forest sector. Formed in the beginning of the 2000s, both networks were initiated by women leaders in forestry for creating a space for women in a male-dominated sector. However, the word "space" here refers to different expanded meaning.

As a grassroot movement, WOWNet was initiated based on the need to create a "safe space" for women landowners. It is intended to be a place where these women feel comfortable asking questions (there are no "dumb questions") and sharing experiences [55].

The network also aims to empower women to be able to make management decisions on their own private woodlands. This is why the network provides technical training through hands-on teaching techniques, offered in a safe learning space.

While in Austria, the *Forstfrauen* network aims at strengthening the visibility of women in a male-dominated sector. This is based on the phenomenon where, although more women are becoming the forest or farm owners in Austria, many of them are still reluctant to become involved in the sector due to its perception as the domain of men. In this network, technical training (e.g., forest management and silviculture techniques) are not offered, as these are the task of the regular training schools in adult education forest schools (e.g., Pichl and Traunkirchen). In these schools, some training (e.g., chain sawing) specifically target women (one gender specific event).

Demographically, WOWNet educates and empowers women who own private woodlands in Oregon, a state in the U.S., whereas the *Forstfrauen* operates at the national level. It even has members from the U.S. and Germany. Despite its international scale, the main base of *Forstfrauen* is Styria, a region in Austria with the highest forest cover, which is also the home for the Pichl Forestry Training Center.

Looking at the member composition based on gender, WOWnet is only open to women landowners as individuals. This is to serve the purpose of the network existence. *Forstfrauen* is more broadly conceptualized, welcoming not only men as their members, but also open to anyone who has an interest with forests (they do not need to be a forest owner). However, it must be noted that the founder(s), based on their own judgement, make the decision as to who is accepted or included as a network member.

Although women's networks are beneficial to counter homosociality and tokenism as well as increasing the visibility of women, there is an opinion that separate, one-gender organizations may challenge societal norms. Andersson and Lidestav [18] cite Eduards (2002, p. 11, in Swedish) who emphasized that when women act as a group, they risk consolidating the gender categories they want to be emancipated from. Women can be defined as the outsiders in a men-dominated domain because they may be seen to only represent women's interests [56]. Therefore, the opening of the Austrian network may be a good strategy. Nevertheless, it could as well lead to watering down the initial goal of being a women's network.

Compared to other parts of the world, such as the global south, mixed gender networks are often preferable. Case studies in Kenya and Uganda (East Africa) and Bolivia and Mexico (Latin America) state that forest management groups dominated by women perform less well than mixed groups or those that are male-dominated. These gaps may relate to gender biases in technology access and dissemination, where women in these countries face a labor constraint due to their multiple adult responsibilities, such as being an unpaid laborer in family farms as well as being a caregiver in families while holding limited authority. Therefore, in the studied countries, since mixed groups are believed to be beneficial in utilizing the strengths of women and men while tempering their individual shortcomings, the groups can take advantage of men's capacity to adopt new technologies and resource management as well as benefiting from women's capacities to manage conflict and enhance cooperation [57].

An empirical study in Africa and Asia finds that, compared to mixed groups, women-only groups run the risk of isolating women, resulting in a lack of information and exposure [58]. Furthermore, in the community with strong local norms and culture influencing the acceptance of women's involvement in economic activities outside their home, women-only groups can experience severe safety risks when monitoring their natural resources at night [59].

Different opinions regarding the homogeneity or heterogeneity of networks and their gender composition in which women are involved (i.e., women only versus mixed-gender networks) can be understood from the forms and types of knowledge created in these networks [60]. The knowledge creation depends on the nature and scope of available opportunities upon the types of people with whom they interact [17]. While the

composition type itself may be based upon hierarchical levels and social identity groups, including gender. The more similar the identity characteristics, the more common their interests and views, which explains the ties of interpersonal interaction [61].

Reflecting on our case study in the U.S., the grassroots network was born due to the circumstances in which women did not feel that they belong to the community due to their perceived lack of knowledge on managing their own land. In a mixed gender setting, these women were even afraid to ask questions, not to mention to present their opinions and ideas. Here, the women-only space is important for learning and supporting each other, considering the possibility of external obstruction of knowledge creation. This kind of safe space will empower these women, allowing them to gain the confidence needed to join mixed gender events. Functioning rules and regulations in such mixed gender groups should also be clearly defined so that all genders can network together with respect. Another prominent difference between the studied networks is the presence of another women's network. In Oregon, there are two other women's networks in forestry. One of them, called "Oregon Women in Timber" (OWIT), is also dedicated to forest resource education without the necessity of being forest landowners. There is also "Women in Wood", a women's network originally initiated in Canada, which was created to bring together women who work in, with, and for the woods. Whereas in Austria, the network is the only one in the whole country and claims to cover all needs. At present, it is unlikely that an alternative women's network will be founded due to the relatively small share of women forest owners in Austria, comprising 31% in total [38]. Although the amount is 6% higher than women landowners in Oregon [37], the Austrian number is calculated by including women's shared ownership, which is not counted in Oregon statistics. In Austria, this ownership means the co-ownership of women with their spouse. It is legally possible to include two persons in the ownership registry and the level of such shared properties is estimated to be around 9% (based on information from an executive officer in The Austrian Federal Ministry of Agriculture, Regions and Tourism).

7. Conclusions

One could assume that the gender balance in the forestry sector is changing due to more attention of environmental concerns or multipurpose forest management. Yet, Johansson et al. [16] have shown that the opportunities for women are limited and that the burden of transforming the sector lies with women themselves.

What do we learn from this comparative study? In terms of the output and ability to advance the position(s) of women, on one hand the network founders/leaders focus on one specific gender (women), but on the other hand they are aware that there is a need to build alliances and gain thorough support to accelerate their efforts. This becomes apparent in the Austrian network, which is open to all genders and professions. The creation of women-only networks supports the aim of creating "safe spaces" and hence can be regarded as a success in both cases. Yet, to enhance women's participation in the mainstream areas of the forestry sector, other (political) means and efforts appear to be the most necessary tools, including the bringing-on-board of men to strive towards gender equality. This study, therefore, enriches existing empirical studies on gender-based networks in forestry by providing evidence on how women forest landowners construct networks within the forestry sector.

8. Recommendations and Future Pathways

Regarding the results of the paper, we can interpret that there is a need for explicit policy measures, such as mentoring/networking programs, family friendly policies, and quota/sensibilization measures for boards and selection committees to increase the gender balance in the forest sector and its related industries (please see [60]). These efforts, as a result, can help to overcome the male homosociality tendencies in the sector.

Regarding the conducted study, we acknowledge limitations because of the relatively small number of respondents, partly due to the very small population of the founders and

leaders of the studied networks. Because the population in this research is very small, it would be valuable to conduct similar studies covering a wider demographic area and/or also including network members. Based on findings of this study, there is considerable space for gender-related research in the forest sector. For example, more research is also needed on the formation of gendered subjects in the forestry sector and the structured gender-conditions in forest-related education. By doing so, aspects of continuity and changes can be revealed. This can lead to adaptation considering current societal, ecological, and economic challenges. Methodologically, a study could be carried out by performing network analysis [62,63]. Different insights can be explored within the networks, such as both leaders' and members' characteristics and their existing and developing soft skills, as well as their political connections, if any.

Author Contributions: Conceptualization, P.L. and A.L.; methodology, P.L., D.K.-G. and A.L.; validation, P.L. and D.K.-G.; formal analysis, P.L. and A.L.; investigation, P.L., D.K.-G and A.L.; resources, P.L., D.K.-G. and A.L.; data curation, P.L. and D.K.-G.; writing—original draft preparation, P.L. and A.L.; writing—review and editing, P.L. and D.K.-G.; project administration, P.L., D.K.-G. and A.L.; funding acquisition, P.L., D.K.-G. and A.L. All authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board (or Ethics Committee) of Oregon State University and University of Natural Resources and Life Sciences Vienna (BOKU).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. UNDP. What are The Sustainable Development Goals? Available online: https://www.undp.org/sustainable-development-goals (accessed on 18 August 2022).
2. Johansson, M.; Ringblom, L. The Business Case of Gender Equality in Swedish Forestry and Mining—Restricting or Enabling Organizational Change. *Gend. Work Organ.* **2017**, *24*, 628–642. [CrossRef]
3. Flock, E.; Hendry, E.R. Tony Tooke, Head of U.S. Forest Service, Stepping Down amid Sexual Misconduct Allegations. PBS NewsHour. Available online: https://www.pbs.org/newshour/nation/tony-tooke-head-of-u-s-forest-service-stepping-down-amid-sexual-misconduct-allegations (accessed on 6 December 2021).
4. Pollack, E. Sweden and the #metoo movement. *Interact. Stud. Commun. Cult.* **2019**, *10*, 185–200.
5. Johansson, M.; Johansson, K.; Andersson, E. # Metoo in the Swedish forest sector: Testimonies from harassed women on sexualised forms of male control. *Scand. J. For. Res.* **2018**, *33*, 419–425. [CrossRef]
6. Grubbström, A.; Powell, S. Persistent norms and the# MeToo effect in Swedish forestry education. *Scand. J. For. Res.* **2020**, *35*, 308–318.
7. Larasatie, P.; Barnett, T.; Hansen, E. The "Catch-22" of Representation of Women in the Forest Sector: The Perspective of Student Leaders in Top Global Forestry Universities. *Forests* **2020**, *11*, 419. [CrossRef]
8. Linehan, M.; Scullion, H. The Development of Female Global Managers: The Role of Mentoring and Networking. *J. Bus. Ethics* **2008**, *83*, 29–40. [CrossRef]
9. Ibarra, H. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Adm. Sci. Q.* **1992**, *37*, 422–447. [CrossRef]
10. Ehrich, L.C. Mentoring and networking for women educators. *Women Manag. Rev.* **1994**, *9*, 4–10. [CrossRef]
11. Crandall, M.S.; Costanza, K.K.L.; Zukswert, J.M.; Kenefic, L.S.; Leahy, J.E. An Adaptive and Evidence-Based Approach to Building and Retaining Gender Diversity within a University Forestry Education Program: A Case Study of SWIFT. *J. For.* **2020**, *118*, 193–204. [CrossRef]

12. Larasatie, P.; Baublyte, G.; Conroy, K.; Hansen, E.; Toppinen, A. "From nude calendars to tractor calendars": The perspectives of female executives on gender aspects in the North American and Nordic forest industries. *Can. J. For. Res.* **2019**, *49*, 915–924. [CrossRef]
13. Larasatie, P.; Barnett, T.; Hansen, E. Leading with the heart and/or the head? Experiences of women student leaders in top world forestry universities. *Scand. J. For. Res.* **2020**, *35*, 588–599. [CrossRef]
14. Harding, S.G. *The Science Question in Feminism*; Cornell Univ. Press: Ithaca, NY, USA, 1986.
15. Östlund, L.; Öbom, A.; Löfdahl, A.; Rautio, A.M. Women in forestry in the early twentieth century—new opportunities for young women to work and gain their freedom in a traditional agrarian society. *Scand. J. For. Res.* **2020**, *35*, 403–416. [CrossRef]
16. Johansson, K.; Andersson, E.; Johansson, M.; Lidestav, G. Conditioned openings and restraints: The meaning-making of women professionals breaking into the male dominated sector of forestry. *Gend. Work Organ.* **2020**, *27*, 9. [CrossRef]
17. Durbin, S. Creating Knowledge through networks: A gender perspective. *Gend. Work Organ.* **2010**, *18*, 90–112. [CrossRef]
18. Andersson, E.; Lidestav, G. Creating alternative spaces and articulating needs: Challenging gendered notions of forestry and forest ownership through women's networks. *For. Policy Econ.* **2016**, *67*, 38–44. [CrossRef]
19. Baublyte, G.; Korhonen, J.; D'Amato, D.; Toppinen, A. "Being one of the boys": Perspectives from female forest industry leaders on gender diversity and the future of Nordic forest-based bioeconomy. *Scand. J. For. Res.* **2019**, *34*, 521–528. [CrossRef]
20. Lipman-Blumen, J. Toward a Homosocial Theory of Sex Roles: An Explanation of the Sex Segregation of Social Institutions. *Signs J. Women Cult. Soc.* **1976**, *1*, 15–31. [CrossRef]
21. Tallberg, T. *Networks, Organisations and Men: Concepts and Interrelations*; Svenska handelshögskolan: Helsinki, Finland, 2003.
22. Kanter, R.M. Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women. *Am. J. Sociol.* **1977**, *82*, 965–990. [CrossRef]
23. Fawcett, R.; Pringle, J.K. Women CEOs in New Zealand: Where are you? *Women Manag. Rev.* **2000**, *15*, 253–260. [CrossRef]
24. Van den Brink, M.; Benschop, Y. Gender in academic networking: The role of gatekeepers in professorial recruitment. *J. Manag. Stud.* **2014**, *51*, 460–492. [CrossRef]
25. Rand, T.M.; Wexley, K.N. Demonstration of the Effect, "Similar to Me," in Simulated Employment Interviews. *Psychol. Rep.* **1975**, *36*, 535–544. [CrossRef]
26. McPherson, M.; Smith-Lovin, L.; Cook, J.M. Birds of a Feather: Homophily in Social Networks. *Annu. Rev. Sociol.* **2001**, *27*, 415–444. [CrossRef]
27. Merriam Webster. Old Boy Network Definition & Meaning—Merriam-Webster. Available online: https://www.merriam-webster.com/dictionary/old%20boy%20network (accessed on 6 December 2021).
28. Holgersson, C. Recruiting Managing Directors: Doing Homosociality. *Gend. Work Organ.* **2013**, *20*, 454–466. [CrossRef]
29. Williams, C.L. The glass escalator: Hidden advantages for men in the "female" professions. *Soc. Probl.* **1992**, *39*, 253–267. [CrossRef]
30. Turco, C.J. Cultural foundations of tokenism: Evidence from the leveraged buyout industry. *Am. Sociol. Rev.* **2010**, *75*, 894–913. [CrossRef]
31. Gustafson, J. Tokenism in policing: An empirical test of Kanter's hypothesis. *J. Crim. Justice* **2008**, *36*, 1–10. [CrossRef]
32. Greed, C. Women in the construction professions: Achieving critical mass. *Gend. Work Organ.* **2000**, *7*, 181–196. [CrossRef]
33. Fritsch, M.; Kauffeld-Monz, M. The impact of network structure on knowledge transfer: An application of social network analysis in the context of regional innovation networks. *Ann. Reg. Sci.* **2010**, *44*, 21–38. [CrossRef]
34. Chang, Y.C.; Chen, M.H. Comparing approaches to systems of innovation: The knowledge perspective. *Technol. Soc.* **2004**, *26*, 17–37. [CrossRef]
35. Fritsch, M. Innovation by networking: An economic perspective. In *Innovation Networks—Concepts and Challenges in the European Perspective*; Koschatzky, K., Kulicke, M., Zenker, A., Eds.; Physica: Heidelberg, Germany, 2001; pp. 25–34.
36. OFRI. Oregon Forest Facts. Available online: https://oregonforestfacts.org/ (accessed on 6 December 2021).
37. USDA. U.S. Forest Service, National Woodland Owner Survey. Available online: https://www.fia.fs.fed.us/nwos/ (accessed on 6 December 2021).
38. FEM4FOREST. *Fem4Forest Report on the Current Situation and Position of Women in Forestry in the Danube Region*; INTERREG Project number DTP3-500-1-2 Fem4Forest; European Commission: Brussels, Belgium, 2021.
39. Hirsch, F.; Schmithüsen, F.J. *Private Forest Ownership in Europe*; ETH: Zurich, Switzerland, 2010; Volume 26.
40. Przeworski, A.; Teune, H. *The Logic of Comparative Social Inquiry*; Wiley-Interscience: New York, NY, USA; London, UK, 1970.
41. Mills, J.S. *A System of Logic*; Longman: London, UK, 1906.
42. Mahoney, J.; Goertz, G. The Possibility Principle: Choosing Negative Cases in Comparative Research. *Am. Political Sci. Rev.* **2004**, *98*, 653–669. [CrossRef]
43. Gerring, J. What is a case study and what is it good for? *Am. Political Sci. Rev.* **2004**, *98*, 341–354. [CrossRef]
44. Yin, R.K. *Case Study Research: Design and Methods*; Sage: Thousand Oaks, CA, USA, 2009.
45. Flick, U. *An Introduction to Qualitative Research*; Sage: Thousand Oaks, CA, USA, 2014.
46. Lin, N. *Social Capital: A Theory of Social Structure and Action*; Cambridge University Press: Cambridge, UK, 2001.
47. Burke, R.; Rothstein, M.; Bristor, J. Interpersonal networks of managerial and professional women and men: Descriptive characteristics. *Women Manag. Rev.* **1995**, *10*, 21–27. [CrossRef]
48. McCarthy, H. *Girlfriends in High Places: How Women's Networks Are Changing the Workplace*; Demos: London, UK, 2004.

49. Wirth, L. *Breaking through the Glass Ceiling. Women in Management*; International Labour Office: Geneva, Switzerland, 2001.

50. Denzin, N.; Lincoln, Y. *The SAGE Handbook of Qualitative Research*; Sage: Thousand Oaks, CA, USA, 2017.

51. Patton, M.Q. *Qualitative Research & Evaluation Methods*; Sage: Thousand Oaks, CA, USA, 2002.

52. Bauer, M.W.; Gaskell, G. *Qualitative Researching with Text, Image, and Sound: A Practical Handbook*; Sage: London, UK; New York, NY, USA, 2000.

53. Mayring, P. *Qualitative Inhaltsanalyse. Grundlagen und Techniken*, 7th ed.; Deutscher Studien Verlag: Weinheim, Germany, 2000.

54. Tetlock, P. *Expert Political Judgement: How Good Is it? How Can We Know?* Princeton University Press: Princeton, NJ, USA, 2017.

55. Larasatie, P.; Hopkins, T.; Redmore, L. United States: The WOWNet in Oregon-A Grass Root Gender Equality Initiative. In *IUFRO Task Force: Gender Equality in Forestry*; IUFRO: Vienna, Austria, 2021.

56. Brandth, B.; Follo, G.; Haugen, M.S. Women in forestry: Dilemmas of a separate women's organization. *Scand. J. For. Res.* **2004**, *19*, 466–472. [CrossRef]

57. Mwangi, E.; Meinzen-Dick, R.; Sun, Y. Gender and sustainable forest management in East Africa and Latin America. *Ecol. Soc.* **2011**, *16*, 17. [CrossRef]

58. Cornwall, A. *Making a Difference? Gender and Participatory Development*; IDS Discussion Paper No. 378; Institute of Development Studies: Brighton, UK, 2001.

59. Sultana, P.; Thompson, P. *Gender and Local Floodplain Management Institutions: A Case Study from Bangladesh*; Collective Action and Property Rights (CAPRi) Working Paper 57; International Food Policy Research Institute: Washington, DC, USA, 2006.

60. Azmat, G.; Boring, A. Gender diversity in firms. *Oxf. Rev. Econ. Policy* **2020**, *36*, 760–782. [CrossRef]

61. Ibarra, H. Personal networks of women and minorities in management: A conceptual framework. *Acad. Manag. Rev.* **1993**, *18*, 56–87. [CrossRef]

62. Edwards, G. *Mixed-Method Approaches to Social Network Analysis*; Discussion Paper; National Centre for Research Methods: Southampton, UK, 2010.

63. Lazega, E.; Snijders, T.A. *Multilevel Network Analysis for the Social Sciences: Theory, Methods and Applications*; Springer: Berlin/Heidelberg, Germany, 2015; Volume 12.