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Do female forest owners think and act “greener”?

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Female forest owners less active in forestry



Research in Finland, Norway and Sweden shows differences in male and female forest owners' harvesting and silvicultural activities; where significantly lower activity is reported on forestland owned by women compared to men.

(Follo 2008, Lidestav & Ekström 2000, Lidestav & Berg Lejon 2013, Kuuluvainen et al 2014, Rippati 1999).

Why are female forest owners less active?



- ❖ Their properties are smaller/less productive
- ❖ The forest is more often transferred as a gift or inheritance, and as joint ownership
 - ➔ Less financial incentives or needs

	Women	Men
Mean size	49 ha	58 ha
Own alone	20%	34%
Own with spouse/partner	31%	39%
Own with siblings/relatives	36%	32%
Transferred as gift/inheritance	36%	28%
Purchased from parents/relatives, %	23%	39%

Source: Lidestav & Nordfjell 2005

... or is it that they think “greener” ?



“Women assign greater value to the ecological aspects – they find it more important to preserve virgin forests and animals and plants – and recreational aspects of forests than men do. Men, on the other hand, find increased timber production to be more important than women do. [...] Forest management attitudes follow the same pattern as forest values.”

Nordlund & Westin 2011

“Gudskjelov så er det ikke så mange kvinner aktive”

(Korsbakken in Follo 2008): 244)

Applying a social ecofeminist approach



At the core of ecofeminist analysis lies the assumption that the oppression of women and the exploitation of nature are linked (Warren 1997, Kronlid 2003).

Women's position in society is seen as derived from prevailing social and economic structures and since these structures also produce environmental damage, women can "share" the experience of being exploited, and therefore are better placed than men to argue on nature's behalf. (Plumwood 1992).

(Re)defining how societies look at productivity and activity of both women and nature (Shiva 1988)



Konkurrenskraft kräver
jämställdhet

*Competiveness requires gender
equality*



REGERINGSKANSLIET



Aim and research question



To investigate whether female forest owners in Sweden are inclined to commercialise other forest related products or services than industrial roundwood to a higher extent than male owners and if they are more focused than men on preservation of the forest.

Material and Methods

ISSUE	SURVEY METHOD/DATA
Harvesting and silvicultural activities	A national mail questionnaire survey (2010), administrated by Statistics Sweden, directed to a stratified sample of resident owners (510 respondents) and non-resident owners (499 respondents).
Forest owners' valuation of the importance of different forest benefits/values	
Forest owners' valuation of the forest as a resource	
Forest owners' opinions of which considerations that should be taken in their forestry	
Forest based business activities as a source of income; forestry, forest energy primary products, energy production, forestry contracting, wood processing, aquaculture and game farming, tourism business and health business	Farmers Federation (LRF) member survey data on current business activities and gender of the operational manager (10 240 responses regarding management of forest land)

Statistical software Minitab, Mann-Whitney test, Pearson Chi-Square test and Fisher's exact test.

Results – forestry activity

Activity	Male			Female		
	All	Single	Joint	All	Single	Joint
Final felling (mean, % of the forest property)	12	12	12	15	16	14
Thinning (mean, % of the forest property)	18	18	18	20	22	19
Cleaning (mean, % of the forest property)	16	16	16	16	15	17
Size of holding (median, ha)	45	44	45	35	33	37

Results – valuation of forest property goods

Forest owners' valuation of the importance of different forest related benefits/values (From 1 = not important at all to 5 = Very important, Mean). The numbers show the percentage of respondents who have answered 4 or 5.

Forest benefits/values	Total n = 970	Man n = 724	Woman n = 221	Δ
A. Forest revenue	28	28	28	0
B. Hunting & fishing	35	37	27	10a
C. Berries & mushrooms	25	21	38	-17a
D. Timber/firewood own use	44	44	43	1
E. Residence	48	49	44	5
F. Outdoor life/recreation	58	58	63	-5
G. Contact with family/ friends/upbringing	33	32	38	-5
H. Forestry tradition	38	40	34	6

Results – valuation of forest resources

Percentage of respondents who have answered 5, 6 or 7. Difference (Δ) and statistical significance is calculated between row pairs. Differences of statistical significance on a 5 % level

Objective	Total	Gender		Δ
		Man	Woman	
P=production value	n = 970	n = 724	n = 221	
E= ecological value				
O=other value cultural/recreational				
P: Increased timber production	73	76	65	<u>10a</u>
P: Increased bio fuel production	69	70	67	<u>3a</u>
E: Preservation of native forests	54	52	62	<u>-9a</u>
E: Preservation of plants and animals	74	72	81	<u>-10a</u>
O: Preservation of cultural environments	56	53	68	<u>-16a</u>
O: Increased areas for recreation	29	27	37	-10
O: Increased tourism in the forest landscape	24	23	28	-6
O: Increased possibilities for hunting/fishing	45	46	40	6

Results – considerations in management

Forest owner's valuation of which considerations private forest owners should take in their forestry (from 1 = little consideration to 7 = great consideration). The numbers show the percentage of respondents who have answered 5, 6 or 7.

Consideration to take in own forestry	Total	Man	Woman	Δ
P = production value	n = 970	n = 724	n = 221	
E = ecological value				
O = other value (cultural/recreational)				
P: The profitability of the forest property	81	82	76	6a
P: The industrial need for raw material	53	55	45	11
E: Biological diversity	59	57	67	-10a
E: Landscape conservation	68	66	73	-7a
O: Possibilities for hunting and fishing	56	57	53	4
O: Other outdoor life	40	38	46	-8a

Results – business activity

The gender of the operations manager(s) for the eight studied business activities

Business activity	Operations manager is a man (%)	Operations manager is both a man and a woman (%)	Operations manager is a woman (%)	Share of all owners with the activity (%)
Forestry	65.3 a	28.4 a	6.3 b	69.2
Forestry contracting	75.4 a	22.4 b	2.2 c	9.9
Wood processing	66.6 a	30.5 a	2.8 b	6.9
Forest energy primary products	67.9 a	28.3 a	3.8 b	21.7
Energy production	66.8 a	29.6 a	3.6 b	13.7
Aquaculture & game farming	64.2 a	31.9 a	4.0 b	4.2
Tourism business	55.7 a	35.7 b	8.6 b	10.0
Health business	35.4 a	45.3 b	19.3 c	1.9

Conclusions

VALUES

- Women really do "think greener" based on expressed ecological/cultural values
- Men farther from women regarding ecological values than traditional production values
- Women possibly more likely to combine the two perspectives (production-other values) in forest management – the study did not reveal practical management differences.

BUSINESSES

- Low representation of women in management
- Women's participation higher in more novel activities
- Including the results of expressed values, women could be more open to managing various forest values and thus to a higher extent combining traditional production with novel activities.



Thank you for your attention!

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Discussion

The differences between male and female owners regarding production values and ecological values, and to some extent cultural values, could be seen as an indicator that women really do “think greener” than men, i.e. that they more highly than men value other benefits than traditional timber production and that there could be a gap between men and women when it comes to specific choices on how to manage forest land. Since the gap between men and women in average were smaller regarding production values as opposed to ecological and cultural values, an alternative interpretation could be that women are closer to traditional male-biased production values than men are to alternative, and non-traditional forest resource values. That could indicate that the practical management of forest properties owned by women to a greater extent is based on a combination of the two perspectives, i.e. production values and other values than is the case in forest properties managed by men. This study, which did not report significant differences between male and female owners’ level of activity regarding forestry activities (final felling, thinning and cleaning), did not include any survey question that could have revealed a difference in how the forestry activities were planned and executed, i.e. what considerations to ecological values, such as nature conservation, that were actually made. However, the significant differences between female and male owners in the valuation of the profitability of the forest property and ecological values (biodiversity and landscape conservation), indicates that female owners would be more willing than male owners to sacrifice profit for the benefit of ecological values.

Women as sole operational manager were in minority in comparison to men in all types of business activities, but their participation was higher in the more novel activities tourism and health business. An interpretation of this phenomenon could be that women are more inclined to regard and adapt to forest resources with a less traditional eye than men and, since they also value production highly, they are entering the forest from both a traditional and a “new” way that also includes ecologic, recreational and social values to a higher extent than male owners. Even if FFF businesses today still are significantly influenced by gender, which is reflected in the low share of female operations managers, women’s broader perspective on a multiplicity of values and business opportunities based on the forest and its resources could lead to a development where women become more involved in managing different types of forest values, both production values and ecological values. The results strengthen the assumption that women are more inclined to see business opportunities in less traditional activities and that gender can affect the valuations women and men have regarding the forest as a resource for developing business activities. When considering the basic assumptions in ecofeminist theory, where women to a larger extent are regarded as being dependent on finding means of survival closer to the home, (e.g. Warren 1997, Plumwood 1992), this could be interpreted as a sign of women’s higher inclination to develop business activities in areas such as tourism and health/rehabilitation, where a daily closeness to the property is of greater importance than what is the case in more traditional business activities like forestry.

