

# Monitoring of socio-economic impact of the project ReBorN (LIFE15 NAT/SE/000892)

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## Summary

The number of sold fishing licenses have increased in the project area Lögdeälven, from approximately 2000 yearly during the period 2015-2018 to >2500 during the last three years (2019-2021). Data is unfortunately lacking for river Råneälven during the last three years.

The increase seen in Lögdeälven could be a result of the projects actions but also due to an increasing interest for outdoor activities during the pandemic.

In 2021, 25 landowners answered the questionnaire sent out by mail and 78 people answered the questionnaire posted on social media (103 in total). The knowledge among the public and private landowners regarding the nature connected to the project was still very high and had not changed considerably since the last questionnaire sent out in 2017.

## Background

During the project, we have had several meetings and excursions with the public, private landowners etc. Four demonstration sites (action E3) have been built to help spread the knowledge about water restoration and forestry “best-practice”.

To monitor the socio-economic impact of the ReBorN project we have collected data of sold fishing licenses from fishing rights organizations in river Lögdeälven and river Råneälven. We expected the number of sold fishing licenses to grow with the number of migratory fishes as the restoration project progress and due to the information of fish and fishing which is disseminated through the project.

We have also sent out and published a questionnaire regarding the restoration work and issues related to the work done in the project. This have been done at the beginning of the project (2017) as well as in the end (2021). We expect that the project will educate and increase the knowledge and awareness of good forestry restoration practices among private landowners and the public.

## Method

We have collected data from the organizations who own the right to fish along river Lögdeälven and river Råneälven.

In project area Råneälven it is Degerselets samfällighet who owns the right to fish in the river and who also sells fishing licenses. The fishing licenses in project area Lögdeälven is sold by three Fishing Conservation Associations; Västansjö FVO, Lögdeälvens FVO and Mo-Lögdeå FVO but we have only used data from Lögdeälven FVO because the most of our project areas are within the geographical zone of Lögdeälven Fishing Conservation Association. We have collected data from project area Lögdeälven between 2013-2018 and the restoration work started in 2016. In the project area Råneälven, data have been collected from 2014-2018 and the restoration work started there in 2018.

For the rest of the project areas, the fishing rights are owned by forestry companies which sell fishing licenses for very large areas and not specifically in the projects target rivers. That is therefor difficult to see any changes in our specific areas.

In the beginning of the project, we constructed a questionnaire with questions about the restoration and environmental impact. The purpose was to see the level of knowledge before the measures

started and then comparing the results with the level of knowledge in the end of the project. We started distributing the questionnaire in June 2017 via mail to landowners. We have extended the study to not just include landowners, but also to the public. We have used a physical version (paper) of the questionnaire and the public could also answer through a digital questionnaire online (see annex 1). In 2021 we sent out the second questionnaire.

There has been links to the questionnaire on our website and on the CABs' Facebook pages.

## Results

### Fishing licenses

The number of sold fishing licenses within the area of Lögdeälven Fishing Conservation Association have remained on approximately the same level throughout 2015 to 2018. After 2018 the number of sold licenses steadily increased, reaching as high as 3073 sold licenses in 2020. A similar positive increase was seen for the number of fishing days with an increase to 6385 fishing days in 2020. In 2021, the number of fishing days decreased to the lowest number of days seen during the period between 2013-2021.

**Table 1.** Number of sold fishing licenses and number of fishing days in river Lögdeälven between 2013-2021.

River Lögdeälven		
Year	No. of sold fishing licenses	No. of fishing days
2013	1629	4412
2014	1737	4679
2015	2206	5335
2016	2174	5042
2017	2410	5601
2018	1719	4308
2019	2642	5292
2020	3073	6385
2021	2736	4152

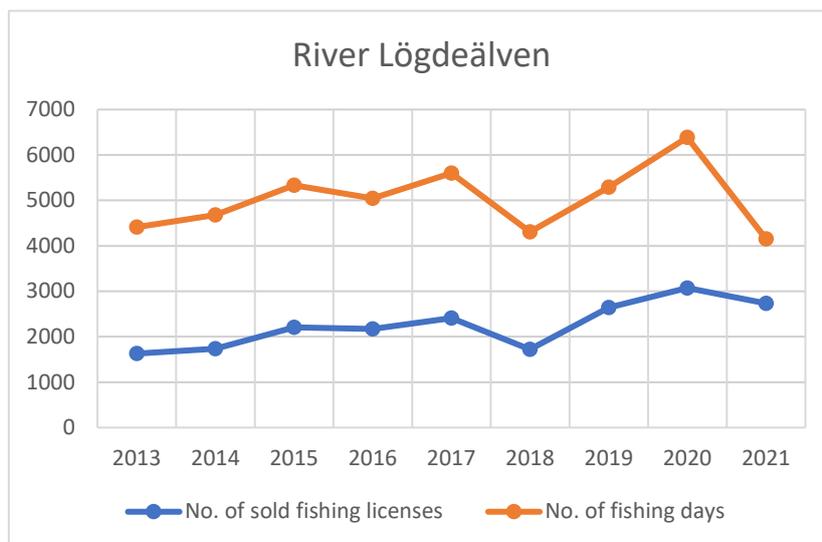


Figure 1. Number of sold fishing licenses and number of fishing days in river Lögdeälven between 2013-2021.

The number of sold gill tags in river Råneälven has varied between 151 and 229 during the years 2015-2018.

The number of sold 3 days fishing licenses and the 7 days fishing licenses within the area for Degerslet Fishing Conservation Association (Råneälven) has slightly decrease during the period 2015-2018. At the same period the whole year family license har increased.

Data is lacking from 2019, 2020 and 2021. In 2021, 341 1 day fishing licenses for salmon was sold.

**Table 2.** Number of sold gill tags in river Råneälven during the years 2015-2018.

River Råneälven	
Year	No. of gill tags
2015	151
2016	216
2017	229
2018	174

**Table 3.** Number of sold fishing licenses within the area of Degerslet Fishing Conservation Association (Råneälven) during the period 2015-2018.

River Råneälven			
Year	3 days fishing licenses	7 days fishing licenses	The whole year, family licenses
2015	358	48	105
2016	275	34	184
2017	206	22	228
2018	237	12	210

## Questionnaire

25 landowners answered the questionnaire sent out by mail and 78 people from the public answered the questionnaire posted on social media in 2021. Some choose to only answer a few of the questions while others answered all of them. The answering frequency therefore varied between 20-25 (answers from 25 landowners via mail) and 26-78 (from the public via social media).

The gender distribution was more even for landowners (men 52% and females 48%) compared to the public (men 83% and females 17%). Most of the landowners were >65 years old (70%) and none of the landowners were <25 years old (0%). For the public, the vast majority was in the middle of the age distribution (approximately 90% within the 25-45- and 46-55-year class).

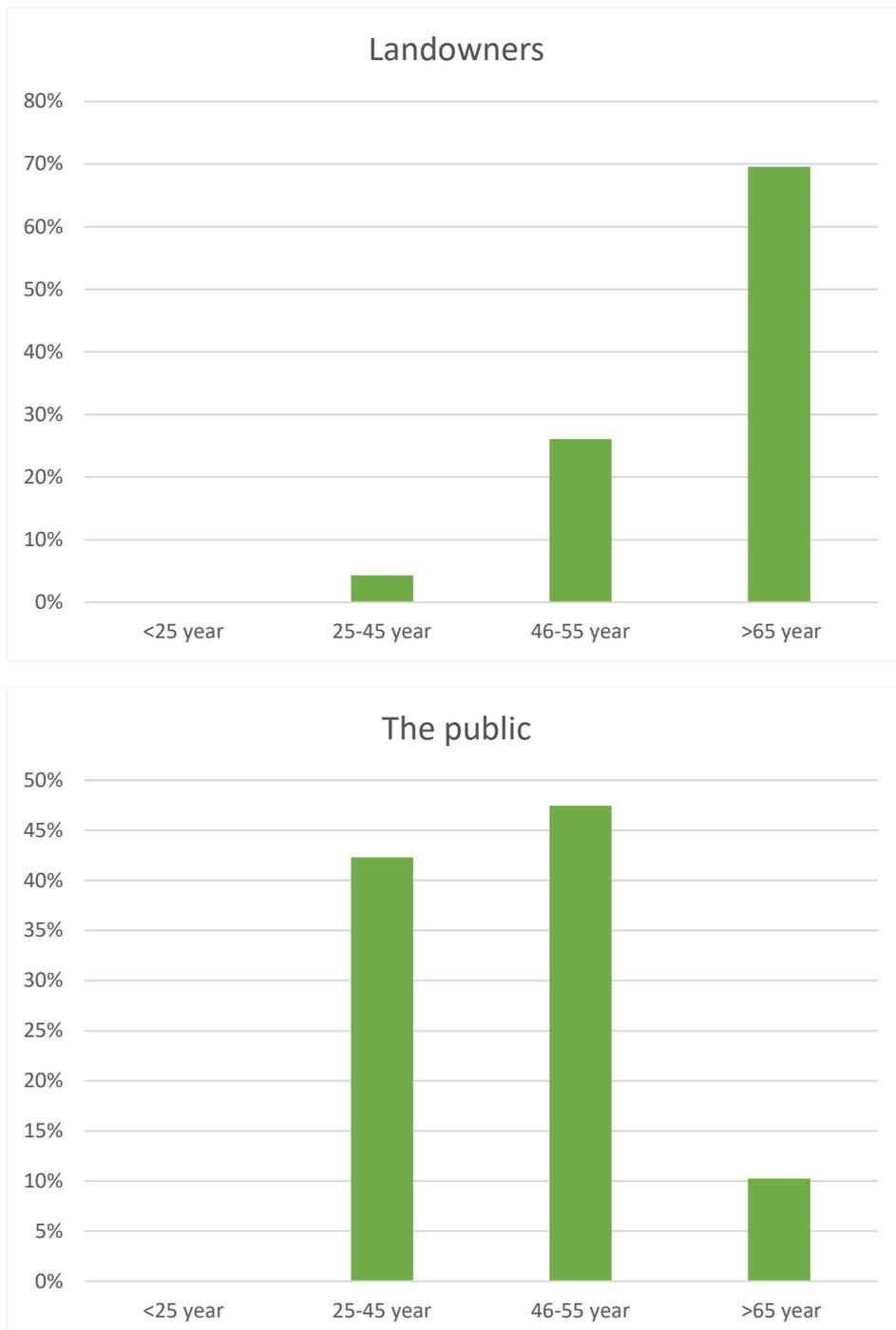


Figure 3. Question 4 in the questionnaire.

25 landowners answered the question about how much forest they own. The majority (32%) answered that they own <50 hectares. 77 people from the public answered the same question, 69 % answered that they do not own forest and 25 % that they own <50 hectares.

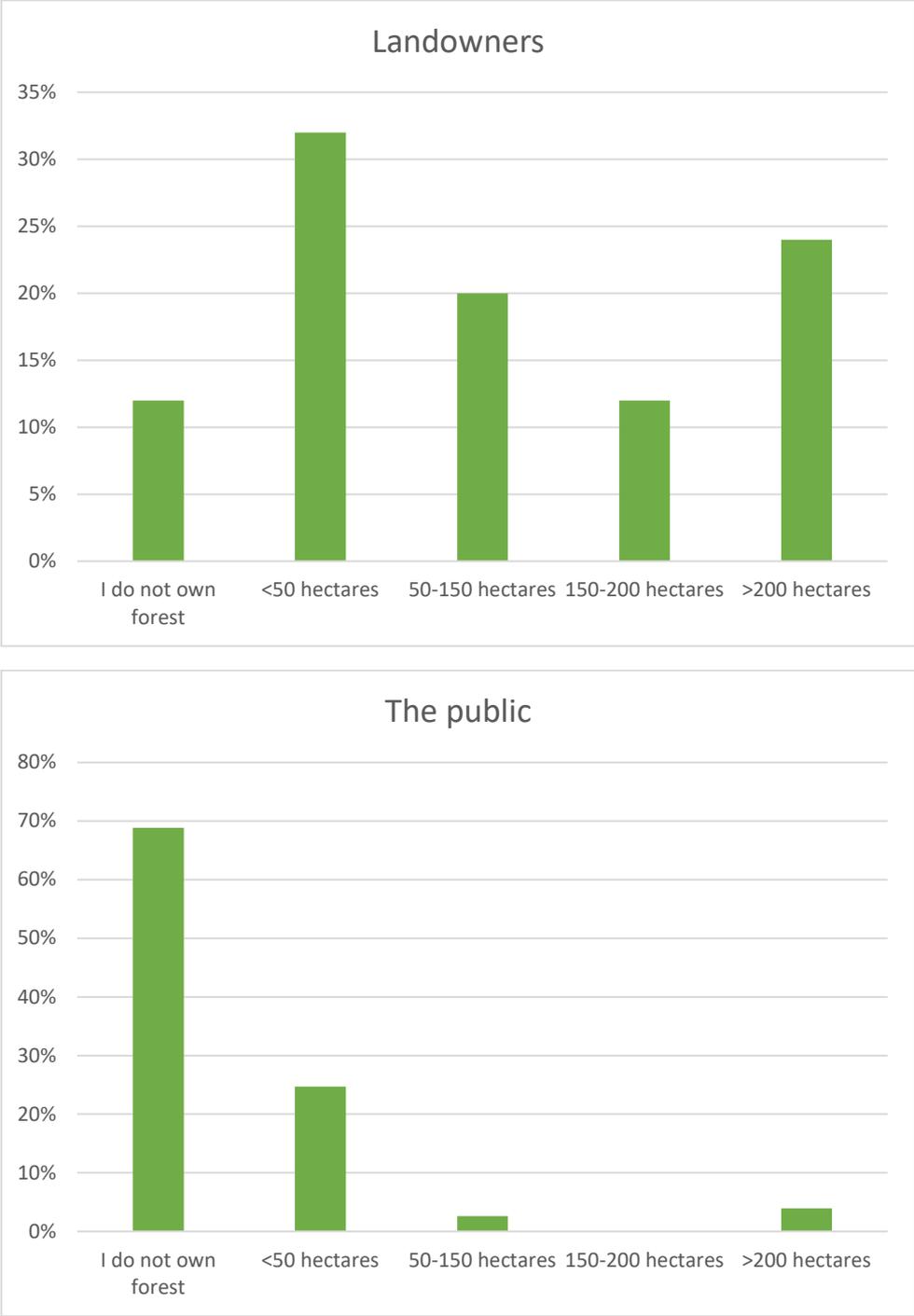


Figure 4. Question 5 in the questionnaire.

Those who own forest were asked; What is most important for you as a forest owner? The possible answers to choose from were scaled from 1 to 5 where 5 is very important and 1 not important at all.

More than 50% of the landowners answered that all three categories (Hunting, fishing and/or outdoor life, Nature preservation and Economy) is very important. The public rated the importance of the three categories lower than the landowners.

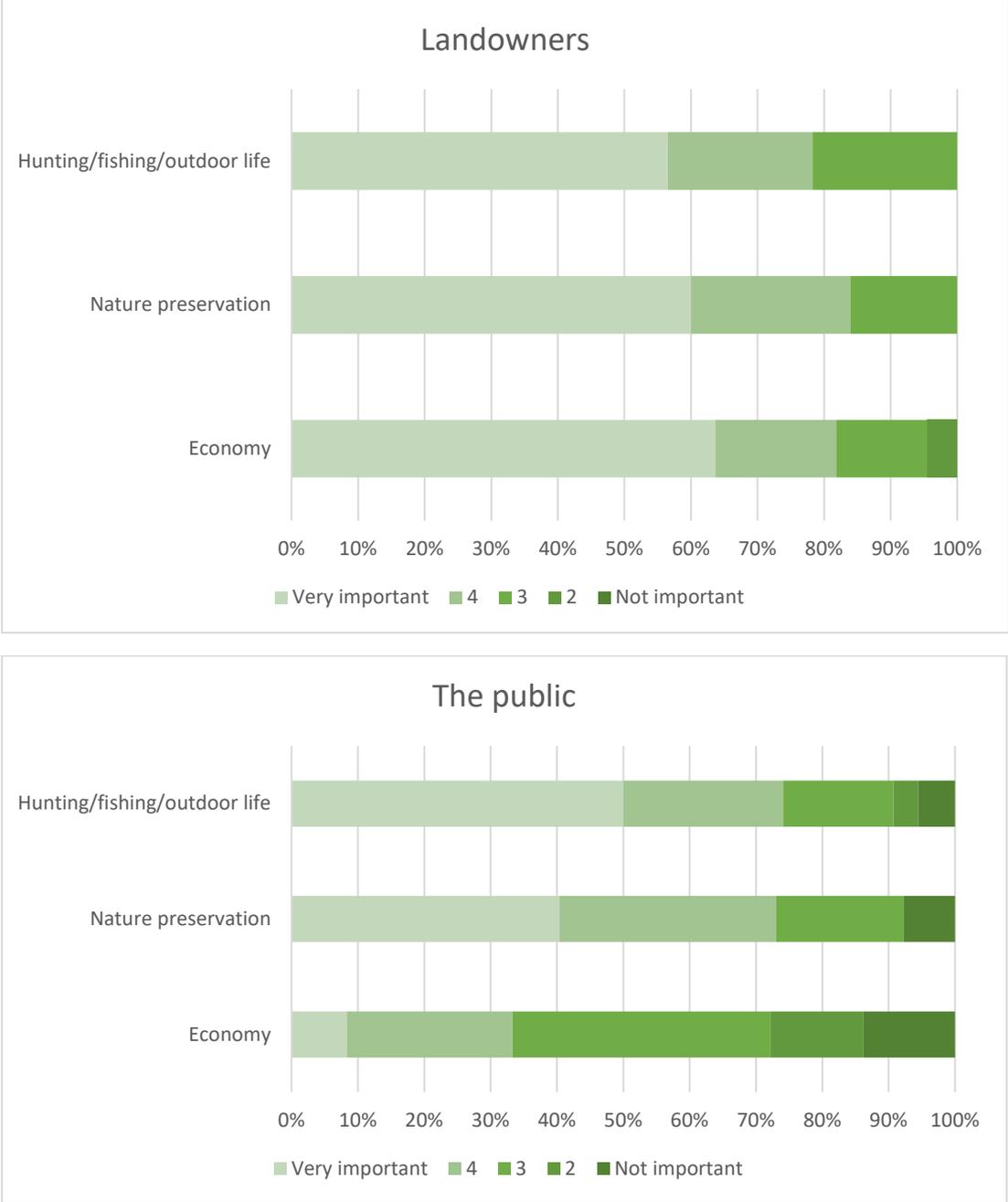


Figure 5. Question 6 in the questionnaire.

The knowledge about nature was still very high. 100% of the landowners and almost all of the public participants gave the right answer to the questions: that freshwater pearl mussel is an endangered species and that the forest closest to the streams is important for fish. 100 % of the public got the answer about the salmon life cycle correct.

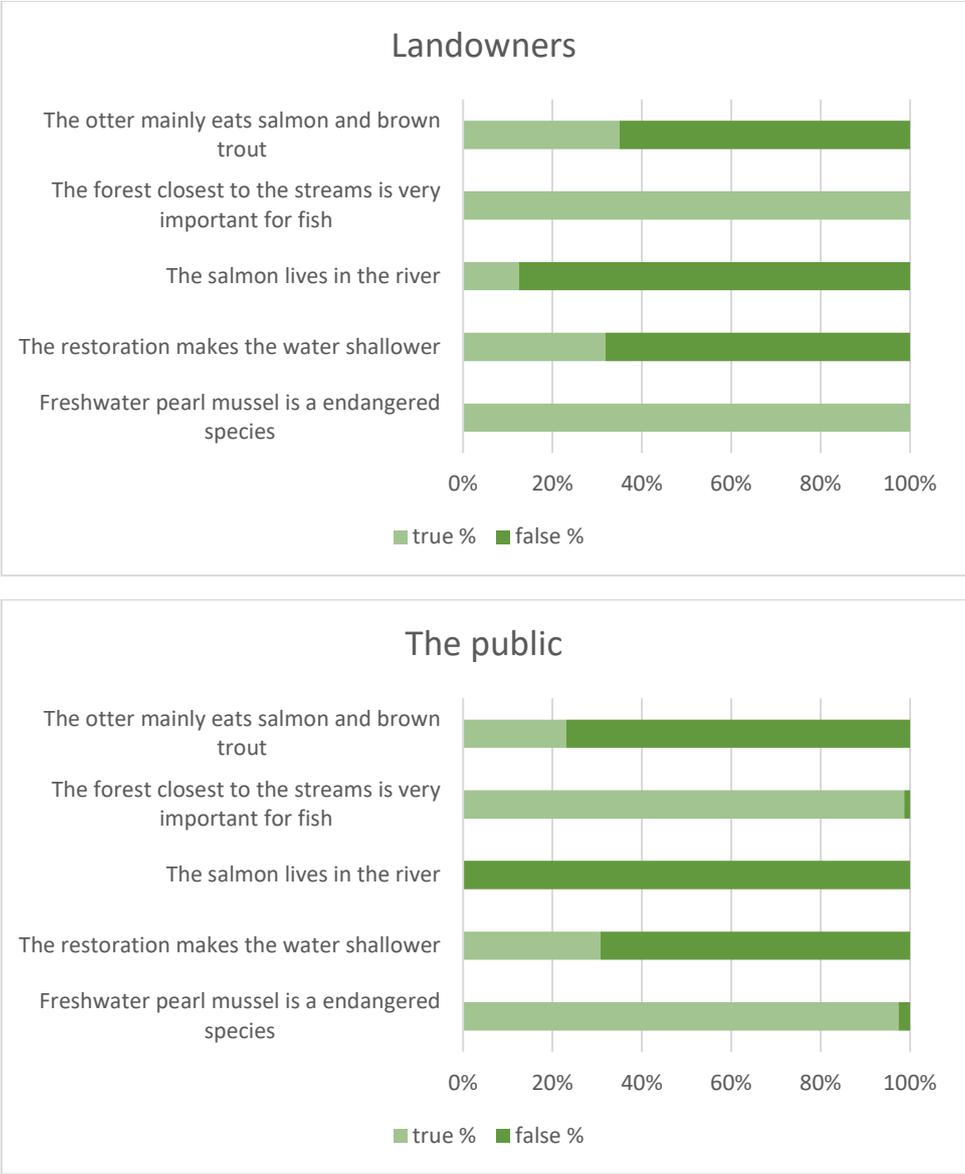


Figure 6. Question 7 in the questionnaire.

25% of the landowners and 29% of the public participants had heard about the restoration from other sources than the County Administrative board. The sources mentioned besides the County Administrative board were forestry companies, local fishermen/women, newspapers, Facebook, the water authorities, the Swedish Board of Agriculture, Fishery conservation areas, the Swedish Anglers Association, acquaintances, the ReBorn project, internet and other organizations.

26% of the landowners and 2/3 of the public participants had visited our website at least one time.

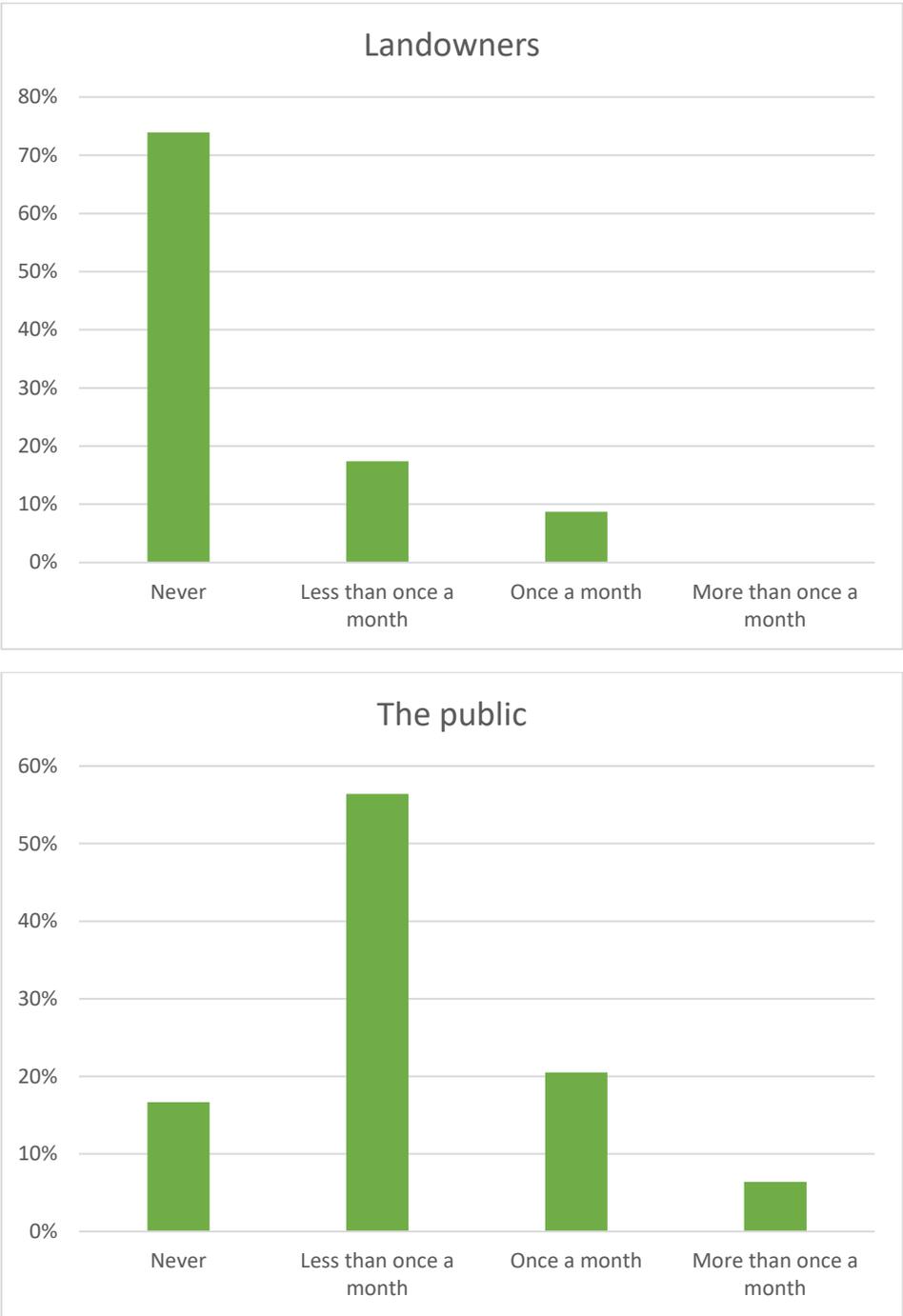
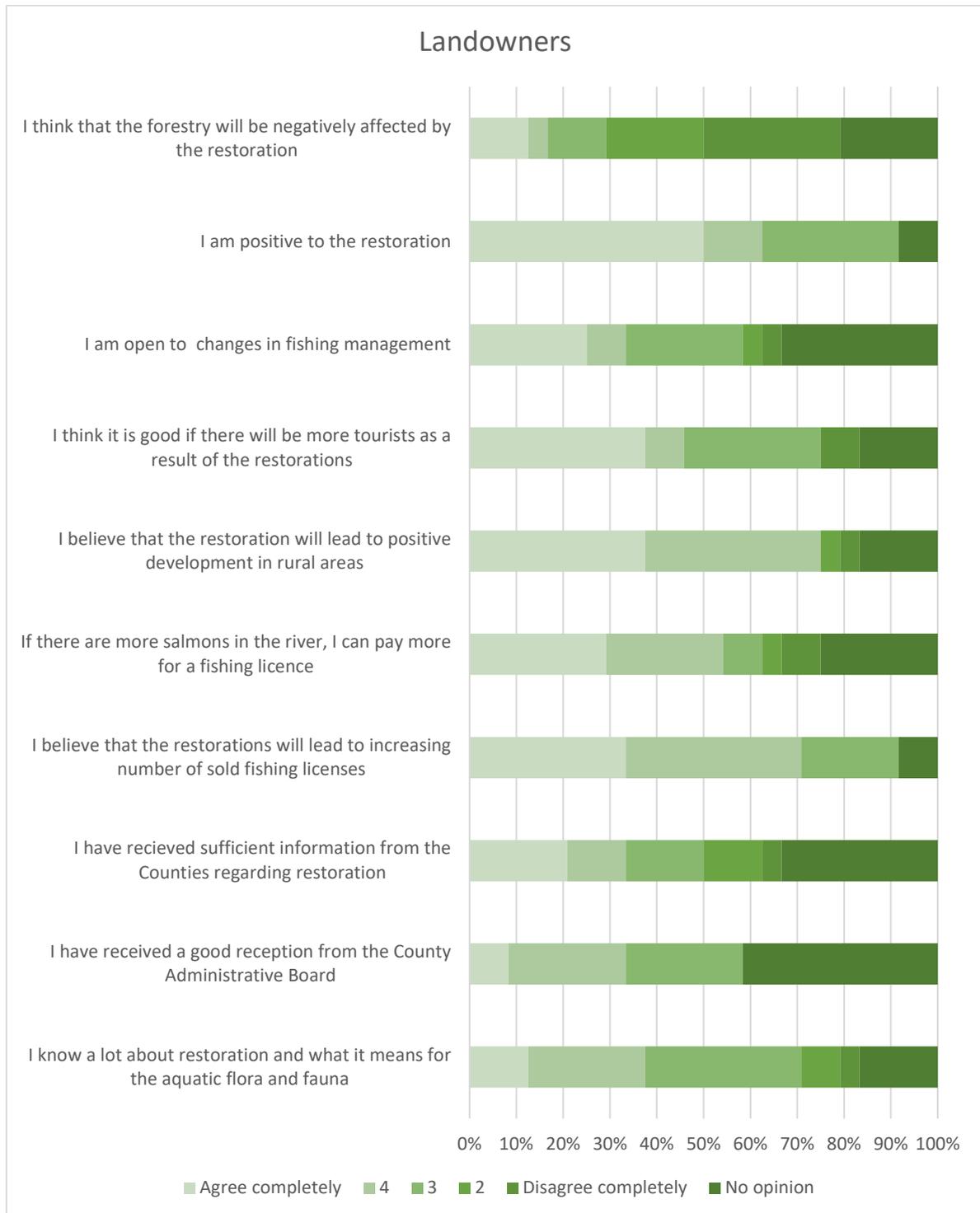


Figure 7. Question 10 in the questionnaire.

94 % of the public participants and 63 % of the landowners who answered the questions are positive to the restoration work.

71% of the public and 38 % of the landowners think they have knowledge about the work.



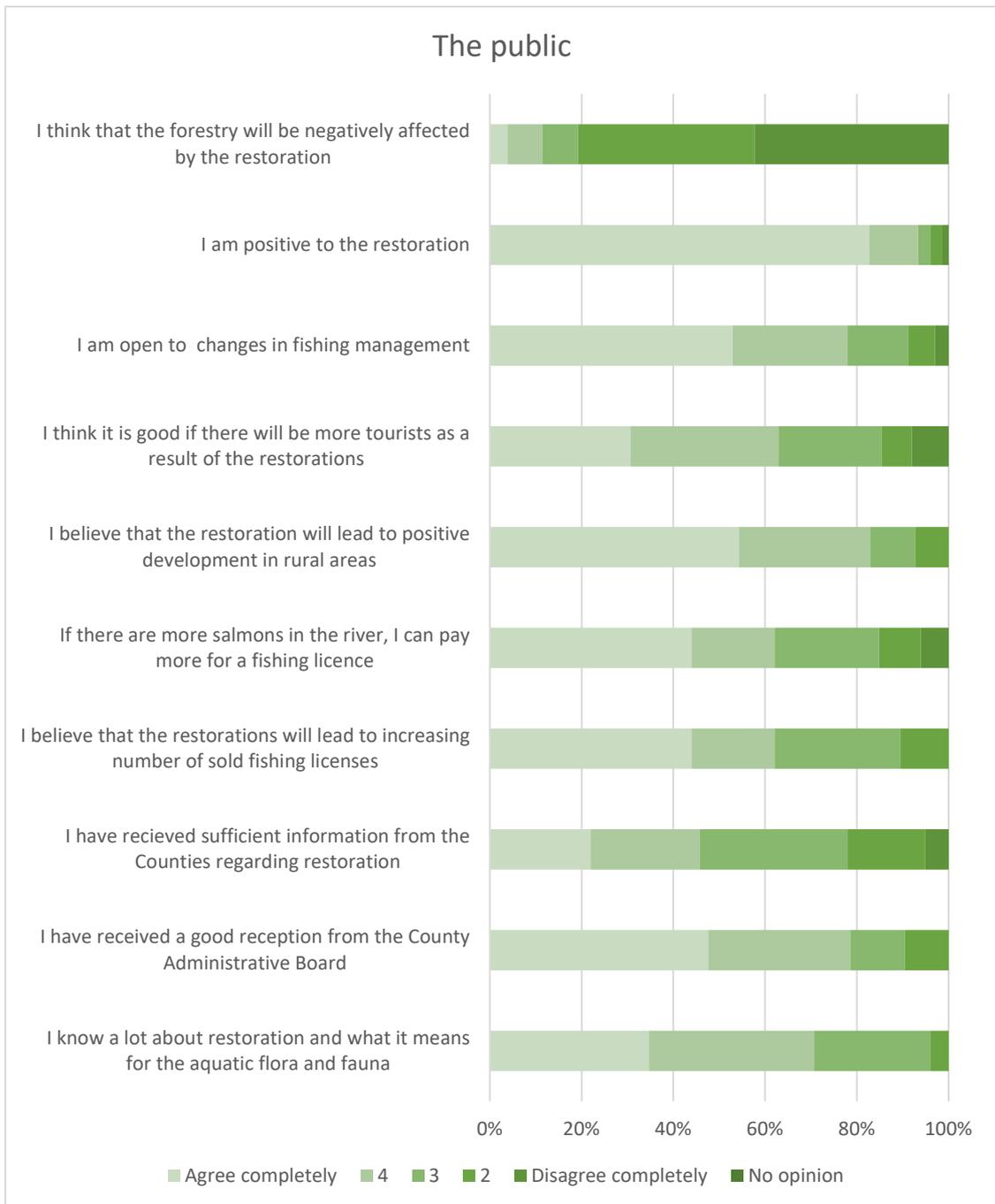


Figure 8. Question 11-20 in the questionnaire. Note that it is the opposite order, starting with question 20 in the questionnaire.

## Discussion

The number of sold fishing licenses was considered a proxy of action success and we expected the number of sold fishing licenses to increase as the restoration project progressed.

Sold fishing licenses in project area Lögdeälven has been approximately 2000 yearly during the period 2013-2018, with a slight decrease in 2018. During the last three years of the project (2019-2021), the number of sold fishing licenses have increased to >2500 sold licenses per year.

It is hard to say if the increase in number of sold fishing licenses in river Lögdeälven is a result of the project actions or not. It could be that the project has increased the awareness regarding fish and fishing opportunities throughout information dissemination. The pandemic may also have contributed to the increase seen during the last years. As the opportunity to travel have has been limited due to Covid-19, people have instead started to explore local outdoor activities such as fishing.

We also expect that the project would improve the knowledge and awareness of good forestry restoration practices among private landowners as well as the public.

In 2021, 25 landowners answered the questionnaire sent out by mail and 78 people answered the questionnaire posted on social media (103 in total).

The answers from the questionnaire showed that the knowledge about the project was high in both 2017 and 2021. The majority were positive towards the restoration actions and their contribution to the rural development within the project areas. Most believed that the project would lead to more fishing licenses being sold and they were also prepared to pay more for the fishing licenses if the salmon stocks became larger. Most of the people answering the questionnaire did not think that forestry is negatively affected by the restoration, although some did.

## Annex 1

### The Questionnaire

# Enkätfrågor ReBorN LIFE

**1. Vattendrag som berör dig:** Lögdeälven  Åbyälven  Råneälven  Annat

**2. Kön**

- Man  Definierar mig varken som kvinna eller man
- Kvinna

**3. Ålder**

- <25 år  46-65 år
- 25-45 år  >65 år

**4. Hur ser ditt skogsinnehav ut?**

Jag äger ingen skog  Mindre än 50 ha  50-150 ha  150-200 ha  Mer än 200 ha

**5. Kryssa i sant eller falskt efter vad ni tror stämmer i följande påståenden.**

	Sant	Falskt
a. Flodpärlmusslan är starkt hotad enligt rödlistan.	<input type="checkbox"/>	<input type="checkbox"/>
b. Miljöåterställning gör att vattendraget blir grundare.	<input type="checkbox"/>	<input type="checkbox"/>
c. Laxen lever hela sitt liv i älven.	<input type="checkbox"/>	<input type="checkbox"/>
d. Skogen närmast vattendraget är viktig för fisken i vattendraget.	<input type="checkbox"/>	<input type="checkbox"/>
e. Utterns huvudsakliga föda är lax och öring.	<input type="checkbox"/>	<input type="checkbox"/>

**Ringa in på skalan (där 5 är viktigast) vad som är viktigast för dig i ditt skogsbruk i fråga 6-8.**

<b>6. Ekonomi</b>	5	4	3	2	1
<b>7. Naturvård</b>	5	4	3	2	1
<b>8. Jakt/Fiske/Friluftsliv</b>	5	4	3	2	1

9. Har du tagit del av information om miljöåterställningar ifrån annat håll än Länsstyrelsen?

JA  NEJ

Om JA från vilken källa fick du informationen:

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10. Har du besökt ReBorn-projektets hemsida ([www.rebornlife.org](http://www.rebornlife.org)) eller någon av projektets Facebooksidor, och i så fall hur ofta?

Aldrig  En gång i månaden

Mindre än en gång i månaden  Mer än en gång i månaden

Svara på följande påståenden genom att ringa in den siffra som överensstämmer bäst.

		Instämmer definitivt			Instämmer definitivt inte		Ingen åsikt /Vet ej
		5	4	3	2	1	0
11	Jag anser mig ha god kunskap om vad miljöåterställning av flottledspåverkade vattendrag innebär för de växter och djur som lever i vattendraget.	5	4	3	2	1	0
12	Jag har fått ett bra bemötande från Länsstyrelsen.	5	4	3	2	1	0
13	Jag har fått tillräcklig information från Länsstyrelsen angående miljöåterställningarna.	5	4	3	2	1	0
14	Jag tror att restaureringarna kommer att medföra att fler fiskekort säljs.	5	4	3	2	1	0
15	Om det blir mer lax i älven kan jag tänka mig att betala mer för ett fiskekort.	5	4	3	2	1	0
16	Jag tror att projektet medför en positiv landsbygdsutveckling.	5	4	3	2	1	0
17	Jag skulle uppskatta en ökad turism som följd av miljöåterställningarna.	5	4	3	2	1	0
18	Jag är öppen för förändrade förvaltningsåtgärder för fiskbeståndet.	5	4	3	2	1	0
19	Jag tycker det är bra att det görs en miljöåterställning av flottledspåverkade vattendrag.	5	4	3	2	1	0
20	Jag anser att skogsbruket kommer påverkas negativt av miljöåterställningarna.	5	4	3	2	1	0

21. Vid intresse för att ta del av information från Länsstyrelsen via e-post ange e-postadress nedan:

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22. Övriga kommentarer:

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23. Namn och adress (frivilligt)

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**Tack för hjälpen! Detta hjälper oss i vårt fortsatta arbete!**



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