

Questionnaire for interviewing farmers regarding their acceptance of local heating plants

PART 1: General Information

1) Is agriculture you main or a sideline occupation?			
☐ main occupation		☐ sideline occupation	
2) What is your farm's legal structure?			
☐ sole proprietorship		☐ partnership (e.g., partnerships under civil law)	
☐ legal entity (e.g. plc, limited liability company, registered cooperative)		☐ another structure, namely _____	
3) Are you, as the farm's manager, also its owner?			
☐ yes		☐ no	
4) How many years of experience do you have in farming?			
_____ years			
5) Age			
☐ < 30 years	☐ 31 – 45 years	☐ 45 - 60 years	☐ > 60 years
6) Gender			
☐ male		☐ female	
7) How large is the agricultural area that you cultivate?			
_____ ha		_____ ha thereof are permanent grassland	
8) Where is your permanent grassland located?			
☐ Oberspreewald		☐ Unterspreewald	
9) How many hectares of your permanent grassland are on lease?			
_____ ha			
10) What is your farm's main focus of production?			
☐ forage and fodder crops > 2/3		☐ mixed farming (livestock farming > 1/3, but ≤ 2/3)	
☐ crop farming (> 2/3)		☐ mixed farming (crop farming > 1/3, but ≤ 2/3)	
☐ horticulture (> 2/3)		☐ another focus, namely: _____	
11) How is the permanent grassland currently used?			
☐ exclusively pasture		☐ exclusively mowing	
☐ pasture and mowing		☐ no usage on approx. _____ ha, because _____	
12) In which zone of the Biosphere Reserve is your permanent grassland located?			
☐ mainly (> 2/3) in zone 2		☐ mainly (> 2/3) in zone 3 or 4	
☐ another distribution, namely _____			
13) What is your livestock's composition?			
☐ dairy cattle (incl. progeny); number: _____		☐ mother cows (incl. calves); number: _____	
☐ beef cattle, number: _____		☐ I do not keep any animals.	
☐ others: _____, number: _____			
14) Please indicate how many ha of grassland are unproblematic, temporarily, and permanently problematic.			
_____ ha are unproblematic		_____ ha are temporarily problematic (only usable in some years)	
_____ ha are problematic (rarely or not at all usable)			
15) Why are those areas problematic?			
☐ too wet in years with average precipitation		☐ many single or fragmented areas that are geographically	

	dispersed
☐ difficult to access, e.g. only by boat	☐ for other reasons, namely _____
16) Which funding schemes and agri-environmental (AE) measures do you participate in?	
☐ nature conservation contracts (Vertragsnaturschutz)	☐ meadow protection programme of the Spreewald (Spreewaldwiesenprogramm)
☐ peatland protection by damming (EAFRD)	☐ Natura 2000 payments (EAFRD)
☐ others, namely _____ on _____ ha	

PART 2: Biomass heating plants (Energy production from landscape conservation material)

17) Will you need a new heating plant within the next 5 years?	
☐ yes	☐ no
☐ Yes, but I will not install a new plant because _____	
18) Which facilities on your farm are to be heated?	
☐ stables	☐ residential buildings
☐ farm buildings (except stables)	☐ drying plant for cereals
☐ holiday home / room rental	☐ other, namely: _____
19) How many kW should a heating plant on your farm be able to generate?	
☐ < 50 kW	☐ 51 – 100 kW)
☐ 101 – 250 kW	☐ > 250 kW

20) How did you first hear about thermal utilization?	
☐ through the local pilot plant	☐ through the scheduled local information event
☐ through acquaintances in the region, namely:	☐ through others, namely:
☐ I do not know it.	

21) How likely do you think it is that you will use thermal utilization of landscape conservation materials on your farm in (within?) the next 5 years? (read out the categories)	
☐ impossible	☐ rather unlikely
☐ rather likely	☐ very likely
☐ it is hard to tell, no answer	

Please indicate to what extent you agree with the following statements.					
22) Attitude towards landscape and the usage of landscape conservation materials:					
	I completely agree.	I mostly agree.	I mostly disagree.	I disagree.	n. s. / I do not know
I generally think it is okay to use mowed material not only as fodder or bedding, but also to produce energy.	☐	☐	☐	☐	☐
Heat production from mowed material is a convenient opportunity (among others) to keep the regional meadows cultivated and to restart cultivating abandoned land.	☐	☐	☐	☐	☐
It is reasonable to use the mowed material, which will accrue anyways, for heat production.	☐	☐	☐	☐	☐
I think it is good that mowed material is a local source of energy that can be used on-site by companies.	☐	☐	☐	☐	☐

23) Attitude towards technology and the its stage of development:

	I completely agree.	I mostly agree	I mostly disagree.	I disagree.	n. s. / I do not know
I am generally very interested in the technology for “energy production with mowed material”.	☐	☐	☐	☐	☐
To my knowledge, the technology seems to be well advanced.	☐	☐	☐	☐	☐

24) Attitude towards the expenditure:

	I completely agree.	I mostly agree.	I mostly disagree.	I disagree.	n. s. / I do not know.
I consider the investment costs of a “hay gasifier” to be too high compared to wood heating systems.	☐	☐	☐	☐	☐
I would depend on subsidies for the investment costs.	☐	☐	☐	☐	☐
The operating costs of a heating plant seem to be difficult to estimate compared to wood heating systems.	☐	☐	☐	☐	☐

25) Current requirements:

	I completely agree.	I mostly agree	I mostly disagree.	I disagree.	n. s. / I do not know.
I am satisfied with my current heating plant. It fulfills my requirements for the next years.	☐	☐	☐	☐	☐
(Only for “I disagree”: I will need a new heating plant, but I already decided to use another type of heating.)	☐	☐	☐	☐	☐
I DO NOT have any meadows that are available for energy production (requirements: late cut, at least once a year).	☐	☐	☐	☐	☐
I only want to be a producer and distributor for “energy hay”, but I do not want to acquire an oven.	☐	☐	☐	☐	☐

26) Planning and implementation:

	I completely agree.	I mostly agree.	I mostly disagree.	I disagree.	n. s. / I do not know.
I already have components of my current heating plant (rooms, chimney, boiler etc.) that I could use.	☐	☐	☐	☐	☐
The planning effort of such a plant seems to be acceptable compared to a wood heating system.	☐	☐	☐	☐	☐
(Only to be asked for plants with 250 kW:) I would accept the effort of a procedure according to the Federal Immission Control Act.	☐	☐	☐	☐	☐

27) In ongoing operation:

	I completely agree.	I mostly agree.	I mostly disagree.	I disagree.	n. s. / I do not know.
It is good and important that the areas will still be supported by agricultural subsidy schemes.	☐	☐	☐	☐	☐
I think it is good that by using mowed material for heating, I can influence my own heating costs.	☐	☐	☐	☐	☐
I own the necessary technology for harvesting and transport.	☐	☐	☐	☐	☐

I do have storage options for the mowed material (a covering of fleece or roofing).	☐	☐	☐	☐	☐
I can easily integrate the additional work tasks into my operational processes.	☐	☐	☐	☐	☐

28) Development process and communication in the region:

	I completely agree.	I mostly agree.	I mostly disagree.	I disagree.	n. s. / I do not know
The existence of a pilot plant is important and useful.	☐	☐	☐	☐	☐
The exchange of information and views on heating plants with other farmers, consultants, etc. is important for me.	☐	☐	☐	☐	☐
It is important that the information and persons involved are trustworthy.	☐	☐	☐	☐	☐
It is important to me that I can gain a good insight into the status of the pilot project and that I can participate in the discussion.	☐	☐	☐	☐	☐

29) Are there further reasons that led to your decision, which have not been listed here?

☐ Yes, namely: _____ ☐ No

30) Do you favor another solution for your problematic wet meadows?

☐ Yes, namely: _____ ☐ No

31) Is there anything else you would like to add?

☐ Yes, namely: _____ ☐ No

32) You have told me that you consider it to be ... [insert the answer to question 21], that you will install a heating plant on your farm within the next 5 years. After answering the previous questions, would you still indicate the same likelihood?

☐ Yes ☐ No, I would now give the following estimation:

☐ impossible ☐ rather unlikely

☐ rather likely ☐ very likely

Outlook**33) Do you think the technology is worth discussing and recommendable?**

☐ yes ☐ no ☐ I cannot answer this yet.

34) Do you already discuss this technology with colleagues and acquaintances?

☐ yes ☐ no, not yet ☐ I do not know, not specified

35) Do you think that "thermal utilization" will spread in the region in the future?

☐ yes ☐ no ☐ I do not know, not specified

36) Is there anything you would like to tell us for the further development and implementation of local biomass heating plants?**37) Do you have any additional comments on this interview?**

PART 3: Attitude towards the conservation of the open cultural landscape of the Spreewald region

38) How important is it to you that wet meadows as an element of the typical cultural landscape of the Spreewald region are preserved?			
☐ very important	☐ important	☐ not very important	
☐ not at all important	☐ not specified	☐ I do not know	
39) Please indicate whether you agree or disagree with the following statements on regional wet meadows.			
Cultivation of wet meadows should be continued.	☐ Yes	☐ No	☐ I do not know. /n. s.
They are scenic.	☐ Yes	☐ No	☐ I do not know. /n. s.
They help me to recreate and to relax.	☐ Yes	☐ No	☐ I do not know. /n. s.
They are important for tourism and economy in the region.	☐ Yes	☐ No	☐ I do not know. /n. s.
They are an important feature of the region and of our cultural heritage.	☐ Yes	☐ No	☐ I do not know. /n. s.
They are an important habitat for plants and animals.	☐ Yes	☐ No	☐ I do not know. /n. s.
Other:			