

Frequencies from the questionnaire distributed in the LAG regional workshops

RESULTS

The document was prepared by the project “Resilience and adaptation to climate change in regional strategies”.

Supported by grant from Iceland, Liechtenstein and Norway.

EHP-CZ02-OV-1-017-2014

Background variables / independent variables

Distribution on gender

	Frequency	Percent
Male	102	64,6
Female	56	35,4
Total	158	100,0

Distribution on age

	Frequency	Percent
20 to 25 years	7	4,4
26 to 35 years	43	27,2
36 to 45 years	55	34,8
46 to 55 years	31	19,6
56 to 65 years	18	11,4
66 to 75 years	3	1,9
Over 75 years	1	,6
Total	158	100,0

Due to the low frequency of 20 to 25; 66 to 75 and over 75, we decided to make a different classification of the age intervals:

	Frequency	Percent
20 to 35 years old	50	31,6
36 to 45 years old	55	34,8
46 to 55 years old	31	19,6
56 years old +	22	13,9
Total	158	100,0

Distribution on education

	Frequency	Percent
Secondary school	2	1,3
Vocational secondary school	46	29,1
Diploma specialist	1	,6
University college degree	109	69,0
Total	158	100,0

Here, the low number of persons with secondary school and diploma specialist as highest completed education, made it an obvious choice to classify into secondary vs. tertiary education.

	Frequency	Percent
Secondary education	48	30,4
Tertiary education	110	69,6
Total	158	100,0

Distribution on livelihood

	Frequency	Percent
No reply	1	,6
Countryside	5	3,2
Small village	43	27,2
Mid-size village	33	20,9
Small town	36	22,8
Town	31	19,6
Regional centre	8	5,1
Capital	1	,6
Total	158	100,0

Also here, the outliers on countryside and larger towns had low frequencies and were coded into new variables:

	Frequency	Percent
Countryside or small village	48	30,4
Mid-size village	33	20,9
Small town	36	22,8
Town or regional centre	40	25,3
Total	157	99,4
No reply	1	,6

Regions

	Frequency	Percent
No data	1	,6
Jihočeský	14	8,9
Jihomoravský	13	8,2
Královehradecký	16	10,1
Moravskoslezský	16	10,1
Olomoucký	12	7,6
Pardubický	13	8,2
Polsko	1	,6
Praha - východ	1	,6
Středočeský	17	10,8
Ústecký	18	11,4
Vysočina	17	10,8
Zlínský	19	12,0
Total	158	100,0

Public / private / NGO

There was a very uneven distribution amongst the participants on their background. This variable will consequently not be used in the further analysis except as an reflection on the question who is

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seen as responsible for mitigation..

	Frequency	Percent
No reply	13	8,2
Public sector	34	21,5
Private sector	14	8,9
NGO	97	61,4
Total	158	100,0

Attitudes / norms / values – dependent variables

Agreement on statements

“Humans’ influence on the climate change will cause the global mean temperature to increase in the coming years”

	Frequency	Percent
No reply	1	,6
Strongly agree	40	25,3
Agree	60	38,0
Neither agree nor disagree	50	31,6
Disagree	5	3,2
Strongly disagree	2	1,3
Total	158	100,0

“Process of adaptation to climate change will have a high importance for my municipality”

	Frequency	Percent
No reply	2	1,3
Strongly agree	27	17,1
Agree	49	31,0
Neither agree nor disagree	60	38,0
Disagree	18	11,4
Strongly disagree	1	,6
Total	157	99,4
Format error	1	,6

“To what extent do you believe, that via adaptation we could build resilience of local communities”

	Frequency	Percent
No reply	5	3,2
Strongly agree	28	17,7
Agree	69	43,7
Neither agree nor disagree	52	32,9
Disagree	2	1,3

Strongly disagree	2	1,3
Total	158	100,0

“Mitigation of climate change will create new jobs”

	Frequency	Percent
No reply	5	3,2
Strongly agree	17	10,8
Agree	46	29,1
Neither agree nor disagree	61	38,6
Disagree	27	17,1
Strongly disagree	2	1,3
Total	158	100,0

“Life in my municipality will be more and more affected by drought periods”

	Frequency	Percent
No reply	1	,6
Strongly agree	35	22,2
Agree	65	41,1
Neither agree nor disagree	35	22,2
Disagree	19	12,0
Strongly disagree	3	1,9
Total	158	100,0

“Life in my municipality will be more and more threatened by floods”

	Frequency	Percent
No reply	2	1,3
Strongly agree	25	15,8
Agree	44	27,8
Neither agree nor disagree	42	26,6
Disagree	34	21,5
Strongly disagree	11	7,0
Total	158	100,0

“The traditional Czech winters will disappear in the next couple of years”

	Frequency	Percent
No reply	1	,6
Strongly agree	30	19,0
Agree	71	44,9
Neither agree nor disagree	39	24,7
Disagree	15	9,5
Strongly disagree	2	1,3
Total	158	100,0

“In sustainable society all types of building must use as little energy as possible”

	Frequency	Percent
No reply	3	1,9
Strongly agree	66	41,8
Agree	70	44,3
Neither agree nor disagree	16	10,1
Disagree	2	1,3
Strongly disagree	1	,6
Total	158	100,0

“It is important to reduce the consumption of beef and dairy products in order to mitigate the climate change”

	Frequency	Percent
No reply	4	2,5
Strongly agree	17	10,8
Agree	26	16,5
Neither agree nor disagree	52	32,9
Disagree	42	26,6
Strongly disagree	17	10,8
Total	158	100,0

“EU member states should prohibit the use of fossil fuels after 2050”

	Frequency	Percent
No reply	5	3,2
Strongly agree	39	24,7
Agree	45	28,5
Neither agree nor disagree	46	29,1
Disagree	23	14,6
Total	158	100,0

“Public funds shouldn’t be invested in projects which increase fossil fuel consumption more than necessary”

	Frequency	Percent
No reply	3	1,9
Strongly agree	64	40,5
Agree	48	30,4
Neither agree nor disagree	32	20,3
Disagree	10	6,3
Strongly disagree	1	,6
Total	158	100,0

Based on the percentage of respondents who answered strongly agree / agree, the following ranking of the statements occurs

	Agree/strongly agree
All types of building must use as little energy as possible	86,1
Public funds shouldn't be invested in projects which increase fossil fuel	70,9
The traditional Czech winters will disappear in the next couple of years	64,0
Humans' influence cause temperature increase	63,3
Life in my municipality will be more and more affected by drought periods	63,3
Via adaptation we could build resilience of local communities	61,4
EU member states should prohibit the use of fossil fuels after 2050	53,1
Adaptation to climate change will have a high importance for my municipality	48,4
Life in my municipality will be more and more threatened by floods	43,6
Mitigation of climate change will create new jobs	39,8
Reduce the consumption of beef and dairy products	27,2

Some of attitudes or beliefs expressed in the replies to these statements seems to have weak negative or positive correlations to ethical values. This seems to be the case for the statement "It is important to reduce the consumption of beef and dairy products in order to mitigate the climate change". Here, the correlation is between endorsement of the statement and a tendency to support distributive justice as an ethical concern in relation to adaptation. There is also a clear division on gender where 21,6 % of the men and 37,5 % of the women agree on the statement on the reduction of beef and dairy.

Q16 It is important to reduce the consumption of beef and dairy products in order to mitigate the climate change	Q26 A1 What kind of ethical issues are important to consider in relation to adaptation to climate change Justice between rich and poor	
	Yes	No
No reply	4,5	1,8
Strongly agree	22,7	6,1
Agree	27,3	12,3
Neither agree nor disagree	18,2	38,6
Disagree	20,5	28,9
Strongly disagree	6,8	12,3
Total	100	100

Regarding the statement "Life in my municipality will be more and more affected by drought periods", there is a small tendency for people with secondary education as the highest to agree to this statement than persons with higher education.

For the statement "Life in my municipality will be more and more threatened by floods" people who live in urban areas agree to a larger extent than people in rural areas.

Adaptation to climate change should be discussed

No reply	12	7,6
At a principled, general level	64	40,5 %
At the level of concrete applications (local actions in local communities)	82	51,9 %

The views on how and where adaptation should be discussed varies with age. Young people believe to a much larger extent that the discussion should take place on local and concrete level, while older people believe it should take place on a general and principled level. See numbers below:

<u>Adaptation to climate change should be discussed (age)</u>	20-35	36-45	46-55	56 +
<u>At a principled, general level</u>	22,0 %	43,6 %	48,4 %	63,6 %
<u>At the level of concrete applications</u>	74,0 %	50,9 %	38,7 %	22,7 %

This factor should be made a central point in discussions on how to adapt to climate change since it can be an underlying cause for disagreements and misunderstandings.

Adaptation to climate change is in essence related to implications about

	Yes %
Environmental effects	57,0
Economic effect	7,6
Citizen acceptance of policies	6,3
Industry compliance	5,7
Security	5,1
Health	3,8

The ranking here shows a large agreement, but also interesting minority positions that could be addressed in discussions.

In order to adapt to climate change responsibly the following actions are what are primarily needed

	Yes %
Increased awareness among stakeholders, the public and politicians	61,4
More research about climate change and ways how to mitigate it	46,2
A stronger moral stance among stakeholders, the public and politicians	40,5
Improvement of regulation (laws, decrees, norms)	39,9
Integration of already existing research about climate change and ways how to mitigate it	39,2
Improved dialogue between stakeholders	36,7
Involvement of the public	32,9
Economic incentives	17,7

The most striking difference in the material are the divisions based on level of education and views

on research as an important factor in adapting to climate change:

"In order to adapt to climate change responsibly the following actions are what are primarily needed" (education)	Secondary	Tertiary
A stronger moral stance among stakeholders, the public and politicians	60,4 %	40,0 %
Integration of already existing research about climate change and ways how to mitigate it	50,0 %	34,5 %

These numbers, where people with higher education tend to see science as a much less important factor in adaptation, suggest that the communication situation on adaptation can be difficult if people with higher education talk to people without higher education as if science is not very important while people with secondary education assume that those with higher education see science as important. The numbers could also indicate that people with higher education see themselves as playing a lesser role in adaptation, and this is strengthened by the next question "Who are primarily responsible for adapting to climate change?" where people with higher education tend to see scientists as being less responsible for adaptation than those with secondary education.

Further, also the view on economic incentives seems to vary with age and gender

"In order to adapt to climate change responsibly the following actions are what are primarily needed" (gender / age)	Men	Women	20-35	36-45	46-55	56 +
Economic incentives (%)	10,8	30,4	14,0	16,4	16,1	31,8

It is difficult to try to explain these differences, but the numbers seem to be in line with differences under "Ethical issues" when it comes to questions of distributive justice (see comments under "Ethical issues"). The rather negative view on economic incentives in general in the Czech Republic could be an effect of the troubles with photovoltaics.¹

Who are primarily responsible for adapting to climate change?

	Yes %
Politicians (Lawmakers)	83,5
The bureaucracy (State and local administration)	43,7
Businesses	36,7
The scientific community	32,3
Municipalities	30,4
Local communities	28,5

Here, there seems to be interesting distributions based on which sector the respondents represent, and especially when it comes to how the respondents see their own group as being responsible or not.

"Who are primarily responsible for adapting to climate change?" (Sector)	Public	Private	NGO
Politicians (Lawmakers)	94,1 %	71,4 %	84,5 %
The bureaucracy (State and local administration)	41,2 %	50,0 %	45,4 %
Businesses	38,2 %	14,3 %	37,1 %

¹ See Martin Sedlák, "Cloudy skies over Czech photovoltaics", 01 Oct 2014, on *Energy Transition* <http://energytransition.de/2014/10/cloudy-skies-over-czech-photovoltaics/>, accessed 16 Sept 2015

The scientific community	47,1 %	7,1 %	30,9 %
Municipalities	17,6 %	35,7 %	34,0 %
Local communities	26,5 %	35,7 %	26,8 %

Amongst those from the private sector, only 14,3 % see businesses as responsible for adaptation while only 17,6 % from the public sector see municipalities as responsible.

Which of the following macro trends are likely to influence on adaptation strategies to climate change?

	Yes %
Increased focus on sustainability	57,6
Integration of policies across ministries	39,9
Citizen empowerment	36,7
Rapid technological change	34,8
Internationalisation (Increasing number of institution on national and/or international level)	29,1
Liberalism (Emphasis on personal freedom as major political value)	12,0

The impacts of trends seems to be non-surprising, and maybe not very informative for the questionnaire as a whole. However, the little faith in liberalism as an important issue is surprising and fits well with a belief in politicians as responsible and the integration of policies is important. In this setting, it might be of interest to comment that the US Tea Party movement has started campaigns for solar energy to reduce state control over energy.²

In your opinion what should be the most important policy based objectives in creating local adaptation strategies?

	Yes %
Create new ways of communication and joint problem solving among actors	43,0
To include all relevant actors and to apply new procedures of negotiation	41,8
Take all aspects into account and seek new problem formulations	40,5
Making comprehensive scientific knowledge available for decision makers	38,0
The assessment of the pros and cons of technological innovation	32,3
To initialize new policies	31,0
To initiate further examinations of the problem from new perspectives	21,5
Open up the policy making process by inducing new policy options	20,9

The inclusion of these questions was a trial based on literature on technology assessment and it did not inform us much.³

² Diane Toomey 26 Mars 2015, "Why This Tea Party Leader Is Seeing Green on Solar Energy" Environment 360, http://e360.yale.edu/feature/debbie_dooley_interview_why_this_tea_party_leader_is_seeing_green_on_solar_energy/2859/, accessed 16 Sept 2015

³ Decker, Michael, and Miltos Ladikas, eds. 2004. *Bridges between Science, Society and Policy: Technology Assessment - Methods and Impacts*. Berlin: Springer.

Climate change must be assessed with the following perspective

	Yes %
In the short term (1 to 5 years)	18,4
In the medium term (6 to 25 years)	56,3
In the long term (more than 25 years)	69,6

The selection of the time horizon in assessments is a value judgment.⁴ And none of the background variables seem to have an influence on the distribution of replies on the issue of the time frame for assessments. However, there are some interesting characteristic of those who prefer short-term to long-term assessment.

In comparison with the rest of the respondents, those who favored short term assessment:

- were more inclined to see the reduction of beef and dairy products as important
- were more inclined to believe economic incentives to important for adaptation
- were more inclined to see local communities as responsible for adaptation
- were more inclined to see justice between rich and poor and intergenerational justice as important
- were more inclined to see sustainability and security as important uncertainties to adaptation
- were more inclined to see LAGs as an agent for adaptation

In comparison with the rest of the respondents, those who favored medium term assessment:

- were more inclined to assess adaptation on the level of local and concrete applications
- were more inclined to believe economic incentives to important for adaptation
- were less inclined to assess adaptation in the long term
- were more inclined to see intergenerational justice as important
- were less inclined to see the inherent value of the environment as important
- were more inclined to see the lack of human resources as a barrier in the LAG work

In comparison with the rest of the respondents, those who favored long term assessment:

- were more inclined to assess adaptation on a principled and general level
- were more inclined to see integration of already existing research as primarily needed for adaptation
- were more inclined to see local communities and municipalities as responsible for adaptation
- were less inclined to assess adaptation in the medium term
- were more inclined to see sustainability, the environment and the economy as important uncertainties to adaptation

The picture is far from coherent, but some issues appear from the numbers. The reliance on distributive justice amongst the short and medium terms; the emphasis on economic incentives amongst those who prefer the short term, the local emphasis amongst the medium term and the general, principled approach amongst those who see the long term as suitable.

What kind of ethical issues are important to consider in relation to adaptation to climate change?

	Yes %

⁴ Levasseur, Annie. 2015. "Climate Change." In Life Cycle Impact Assessment, edited by Michael Z. Hauschild and Mark A.J. Huijbregts, 39–50. LCA Compendium - the Complete World of Life Cycle Assessment. Dordrecht: Springer, p. 42

The integrity or inherent value of human beings	63,9
The integrity of inherent value of the environment	62,7
The integrity or inherent value of animals	39,2
Intergenerational justice	34,2
Justice between rich and poor	27,8
Freedom	20,9
Democracy and concentration of power	14,6

The ethical issues in relation to adaptation have already been mentioned. Women seem to consider justice between rich and poor a more relevant issue than men, and men tend to see the inherent value of human beings, the environment and animals as more important than women. Respondents with secondary education also tend to see the inherent value of human beings, the environment and animals as more important than those with tertiary education.

In general, those who see inherent value of human beings as important also see the inherent value of the environment and animals as important – and vice versa.

Those who see reduction of dairy products and beef as important for mitigation tend to perceive intergenerational justice as more important.

Those who put integrity or inherent value of human beings as important tend more often to see increased awareness among public, stakeholders and politicians as the most important action for adaptation.

Those who put integrity or inherent value of the environment as important tend more often to see that the most important policy-based objective to be a further examination from new perspectives.

As mentioned above, concerns about distributive justice (intergenerational / rich/poor) tend to be more frequent amongst those who will assess climate change in short and medium term perspective. And the inherent value of animals is less of a concern among those who favour the medium term perspective.

The inherent value of animals is a very important concern for those who also see animal health, the environment and – somewhat surprising – trade as the main uncertainties connected to adaption.

Among those who see freedom as an important ethical issue, there is a tendency to see privacy as the main uncertainty connected to adaption.

Those who see justice between rich and poor as important also tend to see intergenerational justice as important. Further, they tend to hold that the LAGs are not committed to engage a wide range of stakeholders. They are also more negative to the LAGS quality in general, except for their capacity to contribute to adaptation.

The risks of adaptation to climate change is best characterized in the following way

We don't know what the uncertainties of adaptation to climate change might be	26,6 %
There are areas of considerable uncertainty connected to adaptation to climate change	25,9 %
Adaptation to climate change is ambiguous and hard to characterise	24,1 %
The risks of adaptation to climate change are well understood	10,1 %
The benefits of adaptation to climate change are well understood	0,6 %
There are no benefits	0,6 %
No reply	12,0 %

Neither of the questions of risks or uncertainties of adaptation gave much information in relation to

the respondents' backgrounds or other answers.

Current level of knowledge about the possibilities of adaptation to climate change.

We lack important knowledge about both benefits and risks	48,7 %
We have adequate knowledge of the risks, but not of the benefits	26,6%
We have adequate knowledge of the benefits, but not of the risks	10,8 %
We have the knowledge we need about benefits and risks of the adaptation to climate change	8,9 %
No reply	5,1 %

The uncertainties of adaptation to climate change are mainly related to ...

	Yes %
The environment	74,1
Human health	51,9
Economy	47,5
Sustainability	36,1
Citizen acceptance	32,9
Animal health	26,6
Ehtics	25,3
Security	21,5
Regulation	20,9
Military/dual use	13,9
Return on investment	7,6
Product benefits	4,4
Trade	4,4
Privacy	3,8

Seen in relation to the background variable, educational background is connected to uncertainties of adaptation in relation to human health. As many as 70,8 % of those with secondary schooling see the human health aspects as important compared to 43,6 % of those with tertiary education.

The background variable age seems to have some importance for the view on military and security aspects where elder people are more occupied with these uncertainties than younger ones. In contrast, the young are more inclined to see uncertainties connected to regulations as important.

Questions on the Local Action Groups

A central concern behind this questionnaire has been to measure the legitimacy in LAGs. We have divided the legitimacy notion into input legitimacy, throughput legitimacy, and output legitimacy. These notions correspond to the question in the following manner:

Input legitimacy	
	To what extent do you consider that you have been able to actually participate in the decisionmaking processes in your LAG
	To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decisionmaking processes
	In your opinion, do the right people participate in your LAG
	What do you consider to be a barriers (if any) for you to participate in LAG activities
Throughput legitimacy	

	To what extent do you consider your LAG decisionmaking process to provide fair opportunities for all participants to influence the content of your discussions
	To what extent do you consider the decisions in your LAG to be based on effective exchange of arguments amongst participants
	To what extent have you been able to access and obtain information about the topics for discussion in your LAG
	To what extent do you consider your LAG to be accountable to the citizens for their decisions and their performance
Output legitimacy	
	To what extent are LAG decisions beneficial for your organization
	To what extent do you expect the LAG work to result in improved adaptation to climate change locally

The analysis in terms of these notions will be presented at the end of this report.

Largely, the replies given on the LAGs are clustered: If one has a positive perception of one aspect, one also has positive perceptions of other aspects of the LAGs. And if one sees that one factor is a barrier, then other factors are also frequently evoked as barriers. However, there is no evidence of a connection between the positive or negative perception of LAGs and perceptions of the existence or non-existence of barriers.

We can illustrate this point by looking at the responses for those who have marked “high / very high extent” (positive) versus those who had “very low / low extent” (negative) on the question “To what extent do you consider that you have been able to actually participate in the decision-making processes in your LAG” for the replies to the question “To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decision-making processes”.

Q: “To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decision-making processes”

	Percentage (all)	Percentage (positive) (N = 58)	Percentage (negative) (N = 44)
No reply	3,8	0	11,4
Very low extent	5,7	0	22,7
Low extent	18,4	6,9	36,4
Medium extent	35,4	22,4	22,7
High extent	27,8	41,4	6,8
Very high extent	8,9	29,3	0

A minority has a general negative understanding of the LAGs. One important issue to address is then if there are differences between the regions. As mentioned by Pechrová and Boukalová, there seems to be a difference between older and newer LAGs in terms of how they see themselves and how effective they are perceived to be.⁵ When summarizing the different degrees and aspects of democracy, legitimacy and participation in the LAGs, there are differences. The LAGs in the Central Bohemian Region (Středočeský kraj) score low in terms of input legitimacy (stakeholders, participators, right participants and barriers) while the LAGs in the Hradec Králové Region (Královéhradecký kraj) and in the Ústí nad Labem Region (Ústecký kraj) score high on these points. When it comes to the different types of barriers, the South Moravian Region (Jihomoravský kraj) seems to perceive there to be

5 Pechrová, M., and K. Boukalová. 2015. “Differences Among Czech Local Action Groups In Using Selected Principles Of Leader*.” *Scientia Agriculturae Bohemica* 46 (1): 41–48.

barriers of all types – except lack of awareness and availability of information about adaptation. Nevertheless, there is not one or several regions that constitute the negative replies.

All regions score well on the procedural – or throughput aspects as discussion, possibility to influence, access to information, and accountability – sides of legitimacy. Actually much better than on input legitimacy.

On the output legitimacy parameter if the LAG decisions are beneficial, all regions are positive, but there are quite some differences from the moderate positive replies in the Pardubice Region (Pardubický kraj) to the very positive in the Hradec Králové Region (Královéhradecký kraj).

When it comes to the question of whether or not the LAGs might contribute to adaptation, the regions varied from slightly positive to slightly negative, but they all centered around “medium extent” in large.

To what extent to you consider that you have been able to actually participate in the decision-making processes in your LAG

	Frequency	Percentage
No reply	5	3,2
Very low extent	19	12,0
Low extent	27	17,1
Medium extent	47	29,7
High extent	38	24,1
Very high extent	22	13,9
Total	158	100,0

The responses to this question seems to be weakly connected to where people live. People living in towns tend to see themselves as participating to a lesser degree than those living in rural areas.

To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decision-making processes

	Frequency	Percentage
No reply	6	3,8
Very low extent	9	5,7
Low extent	29	18,4
Medium extent	56	35,4
High extent	44	27,8
Very high extent	14	8,9
Total	158	100,0

The responses to this question are not connected to any background variables, but they are weakly connected to one of the questions in the survey. People who think that justice between rich and poor is important, tend to see the inclusion of stakeholders as happening to a lesser extent

“your LAG is committed to ensure a wide range of stakeholders”	Yes on justice between rich and poor (N = 44)	No on justice between rich and poor (N = 114)
No reply	6,8	2,6
Very low extent	13,6	2,6
Low extent	22,7	16,7
Medium extent	29,5	37,7
High extent	22,7	29,8

Very high extent	4,5	10,5

In your opinion, do the right people participate in your LAG

	Frequency	Percent
No reply	5	3,2
Yes	85	53,8
No	43	27,2
Don't know	25	15,8
Total	158	100,0

Neither for this question, it is possible to find any relation to background variables, but the responses seems to be connected to the responses to the question on beef and dairy as a mitigation strategy:

	Strongly agree to beef reduction as a mitigation strategy	Agree to beef reduction as a mitigation strategy	Neither agree nor disagree to beef reduction as a mitigation strategy	Disagree to beef reduction as a mitigation strategy	Strongly disagree to beef reduction as a mitigation strategy
Yes to the question "In your opinion, do the right people participate in your LAG"	23,5 %	42,3 %	59,6 %	59,5 %	88,2 %

People who perceive the reduction of beef and dairy products as a mitigation strategy are more skeptical to the composition of the LAGs. There is a tendency for this group of people to rate the LAGs more negatively. However, here the actual numbers of people who have replied is rather small, so this should just be seen as a small indication.

What do you consider to be a barrier (if any) for you to participate in LAG activities

	No reply	No barrier	Minor barrier	Moderate barrier	Major barrier
Lack of financial resources	13,3	8,9	17,7	31,0	29,1
Lack of awareness and availability of information about adaptation	12,0	6,3	17,7	42,4	21,5
Lack of understanding of the effects of climate change	13,9	7,0	20,9	41,1	17,1
Lack of human resources	17,1	9,5	20,3	33,5	19,6
Lack of time	15,2	7,6	25,9	28,5	22,8

As explained above, those who see one issue as a barrier tend to see several issues as barriers.

To what extent do you consider your LAG decision-making process to provide fair opportunities for all participants to influence the content of your discussions

	Frequency	Percentage
No reply	10	6,3
Very low extent	1	,6
Low extent	10	6,3
Medium extent	30	19,0
High extent	69	43,7
Very high extent	38	24,1
Total	158	100,0

To what extent do you consider the decisions in your LAG to be based on effective exchange of arguments amongst participants

	Frequency	Percentage
No reply	10	6,3
Very low extent	2	1,3
Low extent	12	7,6
Medium extent	31	19,6
High extent	82	51,9
Very high extent	21	13,3
Total	10	6,3

As for the question “To what extent do you consider that you have been able to actually participate in the decision-making processes in your LAG”, also the responses to this question seem to vary with where people live. People in central areas tend to rate LAGs more negatively than those in rural areas. This finding is applicable to all the following questions as well.

To what extent have you been able to access and obtain information about the topics for discussion in your LAG

	Frequency	Percentage
No reply	9	5,7
Very low extent	2	1,3
Low extent	11	7,0
Medium extent	27	17,1
High extent	79	50,0
Very high extent	30	19,0
Total	158	100,0

To what extent do you consider your LAG to be accountable to the citizens for their decisions and their performance

	Frequency	Percentage
No reply	10	6,3
Very low extent	3	1,9
Low extent	9	5,7

Medium extent	31	19,6
High extent	55	34,8
Very high extent	50	31,6
Total	158	100,0

To what extent are LAG decisions beneficial for your organization

	Frequency	Percentage
No reply	16	10,1
Very low extent	4	2,5
Low extent	5	3,2
Medium extent	52	32,9
High extent	50	31,6
Very high extent	31	19,6
Total	158	100,0

To what extent do you expect the LAG work to result in improved adaptation to climate change locally

	Frequency	Percentage
No reply	10	6,3
Very low extent	5	3,2
Low extent	28	17,7
Medium extent	63	39,9
High extent	42	26,6
Very high extent	10	6,3
Total	158	100,0

Those who see LAGs as having a potential for adaptation work, are those who already perceive the LAGs in a positive manner, while urban areas are more negative than rural areas.

There are some interesting distributions that should be highlighted in the current setting. And these will be addressed below:

	Process of adaptation to climate change will have a high importance for my municipality
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	29,4 %
Medium extent	34,5 %
High extent	59,7 %

Without being significant, this distribution is nevertheless interesting since it shows that those who perceive a problem tend to see the LAGs as an agent in solving the problem. The tendency is not clear for all beliefs, but should be taken into consideration.

	To what extent do you believe, that via adaptation we could build resilience of local communities
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To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	66,7 %
Medium extent	47,6 %
High extent	75,0 %

	Mitigation of climate change will create new jobs
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	36,4 %
Medium extent	33,3 %
High extent	51,2 %

	Life in my municipality will be more and more affected by drought periods
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	51,5 %
Medium extent	65,1 %
High extent	65,4 %

	Life in my municipality will be more and more threatened by floods
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	42,5 %
Medium extent	34,9 %
High extent	47,3 %

	The traditional Czech winters will disappear in the next couple of years
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	48,5 %
Medium extent	61,9 %
High extent	73,1 %

	In sustainable society all types of building must use
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	as little energy as possible
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	84,9 %
Medium extent	82,5 %
High extent	90,4 %

	It is important to reduce the consumption of beef and dairy products in order to mitigate the climate change
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	33,4 %
Medium extent	23,8 %
High extent	25,0 %

Here we see an exception to the finding, and this is consistent with earlier findings on the question of cattle and mitigation in relation to LAGs.

	Public funds shouldn't be invested in projects which increase fossil fuel consumption more than necessary
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Strongly agree / agree
Low extent	63,6 %
Medium extent	66,7 %
High extent	78,8 %

When it comes to actions needed for adaptations, there are no clear connections either, but interesting distributions. In general, those who see LAGs as important in adaptation also see every issue as more important than the other groups, except for "A stronger moral stance among politicians, stakeholders and the public".

	To what extent do you expect the LAG work to result in improved adaptation to climate change locally		
In order to adapt to climate change responsibly the following actions are what are primarily needed	Low extent	Medium extent	High extent
More research	36,4 %	42,9 %	55,8 %
Integration of research	36,4 %	36,5 %	44,2 %
Improved dialogue between	21,2 %	36,5 %	40,4 %

stakeholders			
Improved regulation	33,3 %	42,9 %	34,6 %
Involvement of the public	27,3 %	27,0 %	36,5 %
Increased awareness	54,5 %	60,3 %	37,3 %
A stronger moral stance	45,5 %	46,0 %	28,8 %
Economic incentives	15,2 %	7,9 %	30,8 %

There is further a weak tendency to see local communities and municipalities as responsible for adaptation amongst those who see LAGs as important in adaptation:

	To what extent do you expect the LAG work to result in improved adaptation to climate change locally		
Who are primarily responsible for adapting to climate change	Low extent	Medium extent	High extent
Politicians	84,8 %	81,0 %	86,5 %
Bureaucracy	42,4 %	49,2 %	34,6 %
Businesses	42,4 %	39,7 %	34,6 %
The scientific community	33,3 %	33,3 %	32,7 %
Municipalities	24,2 %	25,4 %	42,3 %
Local communities	27,3 %	25,4 %	36,5 %

To illustrate the recurring point about a general tendency to rate LAGs high on all accounts, I will present the replies on the different ratings of other LAG aspects based on the replies on LAGs as adaptation agent.

	To what extent do you expect the LAG work to result in improved adaptation to climate change locally		
	Low extent	Medium extent	High extent
To what extent do you consider that you have been able to actually participate in the decisionmaking processes in your LAG (High / very high)	21,3 %	34,9 %	53,9 %
To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decisionmaking processes (High / very high)	27,2 %	34,9 %	50,0 %
In your opinion, do the right people participate in your LAG (yes)	33,3 %	58,7 %	65,4 %
To what extent do you consider your LAG decision-making process to provide fair opportunities for all participants to influence the content of your discussions (High / very high)	60,6 %	69,8 %	80,8 %
To what extent do you consider the decisions in your LAG to be based on effective exchange of arguments amongst participants (High / very high)	54,6 %	71,4 %	77,0 %
To what extent have you been able to access and obtain information about the topics for discussion in your LAG (High / very high)	54,5 %	73,0 %	84,6 %

To what extent do you consider your LAG to be accountable to the citizens for their decisions and their performance (High / very high)	51,6 %	76,2 %	76,9 %
To what extent are LAG decisions beneficial for your organization (High / very high)	42,5 %	47,6 %	69,3 %

Whereas there is no clear findings as to the perceived barriers, but a tendency for those, who see few barriers, also to see LAGs as a positive candidate for implementing adaptation.

	To what extent do you expect the LAG work to result in improved adaptation to climate change locally		
What do you consider to be a barrier (if any) for you to participate in LAG activities	Low extent	Medium extent	High extent
Lack of financial resources (No barrier / minor barrier)	34,4 %	23,8 %	27,0 %
Lack of awareness and availability of information about adaptation (No barrier / minor barrier)	18,2 %	26,9 %	28,8 %
Lack of understanding of the effects of climate change (No barrier / minor barrier)	15,2 %	31,7 %	36,5 %
Lack of human resources (No barrier / minor barrier)	27,3 %	31,7 %	34,6 %
Lack of time (No barrier / minor barrier)	21,2 %	34,9 %	44,3 %

There are several ways of reading the findings on LAGs as contributors to improved adaptation in local communities. The main intention of this report is to inform the LAGs and the public about the range of possible connections and challenges.

There should be little surprise connected to the finding that those who view the LAGs in a positive manner, also believe that the potential for LAGs to contribute to adaptation is greater than for those who think negatively about the LAGs. Nevertheless, such findings should be articulated and discussed. Further, it is positive for the LAGs that they enjoy a better standing in rural areas than in urban districts, and at the same time, the LAGs are part of a larger political landscape where the political decisions more often than not are taken in central areas.

Legitimacy

Based on the notions of legitimacy, we get the following picture from the analysis

Input legitimacy				
	To what extent do you consider that you have been able to actually participate in the decisionmaking processes in your LAG	Low / very low	Medium	High / very high
		29,1 %	29,7 %	38,0 %
	To what extent do you think your LAG is committed to ensure a wide range of stakeholders in their decision-making processes	24,1 %	35,4 %	36,7 %
	In your opinion, do the right people participate in your LAG	No	Yes	
		27,2 %	53,8 %	

	What do you consider to be a barriers (if any) for you to participate in LAG activities	Major barrier	Moderate barrier	Minor barrier	No barrier
	Lack of financial resources	29,1 %	31,0 %	17,7 %	8,9 %
	Lack of awareness and availability of information about adaptation	21,5 %	42,4 %	17,7 %	6,3 %
	Lack of the understanding of climate change	17,1 %	41,1 %	20,9 %	7,0 %
	Lack of human resources	19,6 %	33,5 %	20,3 %	9,5 %
	Lack of time	22,8 %	28,5 %	25,9 %	7,6 %
Throughput legitimacy					
		Low / very low	Medium	High / very high	
	To what extent do you consider your LAG decision-making process to provide fair opportunities for all participants to influence the content of your discussions	6,9 %	19,0 %	77,8 %	
	To what extent do you consider the decisions in your LAG to be based on effective exchange of arguments amongst participants	8,9 %	19,6 %	65,2 %	
	To what extent have you been able to access and obtain information about the topics for discussion in your LAG	8,3 %	17,1 %	69,0 %	
	To what extent do you consider your LAG to be accountable to the citizens for their decisions and their performance	7,6 %	19,6 %	66,4 %	
Output legitimacy		Low / very low	Medium	High / very high	
	To what extent are LAG decisions beneficial for your organization	5,7 %	32,9 %	51,2 %	
	To what extent do you expect the LAG work to result in improved adaptation to climate change locally	20,9 %	39,9 %	32,9 %	

According to Ellen-Marie Forsberg *input legitimacy* refers to the legitimacy of the participation in the development process, *throughput legitimacy* refers to the legitimacy of the design of the development process and *output legitimacy* refers to the quality of the outcome of the development process.⁶

⁶ Forsberg, Ellen-Marie. 2012. "Applying Instruments for Regional Innovation – Generating Projects or Legitimacy?" *International Journal of Innovation and Regional Development* 4 (5): 430–45.

For input legitimacy, the numbers from the survey on the LAGs are somewhat disturbing. Both participation of the individuals asked, and their views on the inclusion of stakeholders or affected parties show a rather low tendency to include people into the LAGs. Just over 50 % of those who answered the question tell us that the right people participate in the LAGs, and a majority sees all five possible barriers as existing to a moderate or major degree in the work.

Inside the LAGs the image is quite different. Here, more than two thirds are positive to how they discuss, the information flow, and the quality of the arguments – as well as their accountability versus the citizens. Less than 10 percent are negative. If we remove the respondents from larger towns and cities, an even more positive image appears in terms of throughput legitimacy for all questions except for “To what extent do you consider your LAG decisionmaking process to provide fair opportunities for all participants to influence the content of your discussions”. However, this does not change the image on input legitimacy.

Excluding larger towns does not affect the output legitimacy much. As we can see, the numbers are a little better – and especially the view on the LAGs as agents for adaptation.

Output legitimacy (larger towns excluded) N = 117	Low / very low	Medium	High / very high
To what extent are LAG decisions beneficial for your organization	5,1 %	33,3 %	54,7 %
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	14,5 %	42,7 %	39,3 %

In general, the LAGs do better in terms of output legitimacy than regarding input legitimacy. However, there is a large group answering “medium” on these two questions. It is difficult to analyze and to speculate on what these respondents have in mind, but seen in relation to a weak input legitimacy and a medium to medium strong output legitimacy, it might be relevant to suggest that the connections between a sense of weak inclusion and medium strong results should be addressed.

If we look closer on distribution of the respondents to the question “To what extent to you consider that you have been able to actually participate in the decisionmaking processes in your LAG” we see the following distribution on output legitimacy.

Output legitimacy			
	To what extent to you consider that you have been able to actually participate in the decisionmaking processes in your LAG		
To what extent do you expect the LAG work to result in improved adaptation to climate change locally	Low / very low	Medium	High / very high
Very Low / low	10,8 %	43,5 %	39,1 %
Medium	2,1 %	31,9 %	55,4 %
High / very high	5,0 %	28,3 %	60,0 %

This is not a strong correlation, but it serves as an illustration on the connections between input and output legitimacy.

The relation to throughput legitimacy can also be illustrated by looking at the percentage of the same division of the respondents ranked the different aspects of throughput legitimacy with “Low / very low”:

Throughput legitimacy			
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	To what extent do you consider that you have been able to actually participate in the decision-making processes in your LAG ("Low / very low")		
	Low / very low	Medium	High / very high
To what extent do you consider your LAG decisionmaking process to provide fair opportunities for all participants to influence the content of your discussions (Low / very low)	21,8 %	23,9 %	47,9 %
To what extent do you consider the decisions in your LAG to be based on effective exchange of arguments amongst participants (Low / very low)	19,6 %	19,6 %	54,7 %
To what extent have you been able to access and obtain information about the topics for discussion in your LAG (Low / very low)	23,9 %	17,4 %	56,5 %
To what extent do you consider your LAG to be accountable to the citizens for their decisions and their performance (Low / very low)	21,7 %	26,1 %	50,0 %

This should then read as even amongst those who believe that the LAGs are poor in input legitimacy, there is still a majority that believes them to be well-functioning in terms of their throughput legitimacy, but that the perception of input legitimacy to a certain (small) effect influences the view on throughput legitimacy.

LAGs and adaptation

There is a weak connection between livelihood and views on LAGs as effective and creative agents for adaptation.

"To what extent do you expect the LAG work to result in improved adaptation to climate change locally?"			
	Low / very low	Medium	High / very high
All	20,5 %	39,9 %	32,9 %
Livelihood			
Countryside or small village	12,5 %	41,7 %	39,6 %
Mid-size village	18,2 %	48,5 %	33,3 %
Small town	13,9 %	38,9 %	44,4 %
Town or regional centre	40,0 %	30,0 %	15,0 %

Further, the respondents who selected a timeframe for assessments – and regardless of it being short, medium or long-term – all have a small tendency to estimate the LAGs better as an institution for adaptation:

"To what extent do you expect the LAG work to result in improved adaptation to climate change locally?"			
	Low / very low	Medium	High / very high
All	20,5 %	39,9 %	32,9 %

Timeframe for adaptation			
Short-term (yes)	6,9 %	41,4 %	41,3 %
Medium term (yes)	19,1 %	42,7 %	29,2 %
Long-term (yes)	19,1 %	38,2 %	38,2 %

When it comes to the relation between the statement “Process of adaptation to climate change will have a high importance for my municipality” and the issue of LAGs and adaptation, the numbers become small, but the distribution is as follows:

“To what extent do you expect the LAG work to result in improved adaptation to climate change locally?”			
	Low / very low	Medium	High / very high
All	20,5 %	39,9 %	32,9 %
Process of adaptation to climate change will have a high importance for my municipality			
Agree / Strongly agree	17,1 %	36,8 %	40,8 %
Neither disagree or agree	21,7 %	48,3 %	23,3 %
Disagree / Strongly disagree	31,6 %	31,6 %	26,3 %

It is not possible to conclude on the basis of these numbers, but the tendency exists were respondents who see LAGs as important for adaptation also seem to be more concerned with adaptation. We can also see such numbers for the statement “To what extent do you believe, that via adaptation we could build resilience of local communities”

“To what extent do you expect the LAG work to result in improved adaptation to climate change locally?”			
	Low / very low	Medium	High / very high
All	20,5 %	39,9 %	32,9 %
To what extent do you believe, that via adaptation we could build resilience of local communities			
Agree / Strongly agree	22,7 %	30,9 %	40,2 %
Neither disagree or agree	15,3 %	57,7 %	21,1 %
Disagree / Strongly disagree	N/A	N/A	N/A

It is impossible to explain the large percentage of respondents who marked “neutral” / “medium” and other synonyms for uncertainty. However, there seems to be considerable uncertainty as to both LAGs as agents for adaptation and the belief in the possibility of local adaptation building through resilience. It would be thinkable that LAGs promote positive ideals of successful adaptation as a means of promoting both the belief in local resilience building and themselves as important actors for adaptation.

It is not possible to find any explicit normative foundation for differences with regards to LAGs and adaptation.

“To what extent do you expect the LAG work to result in improved adaptation to climate change locally?”

	Low / very low	Medium	High / very high
All	20,5 %	39,9 %	32,9 %
Ethical issue			
Justice between rich and poor (yes)	15,9 %	38,6 %	31,8 %
Intergenerational justice (yes)	27,8 %	33,3 %	27,6 %
Inherent value of humans (yes)	20,8 %	42,6 %	28,8 %
Inherent value of the environment (yes)	19,2 %	40,4 %	36,4 %
Inherent value of animals (yes)	16,1 %	45,2 %	29,1 %
Democracy and concentration of power (yes)	26,0 %	26,1 %	39,3 %
Freedom (yes)	21,2 %	36,4 %	39,4 %

As previously remarked, whether a respondent is positive or negative to LAGs and their throughput / output dimension to a large degree influences her or his views on LAGs and their capability to act for adaptation.