**Supplementary material S1** *Questionnaire on Total Economic value of Alistana-Sanabresa breed*

Questionnaire n. .......... Date .............

Done by: ................................

City of interview.................................

Place of interview .....................

***Introduction***

*I am carrying out, on behalf of the National Institute of Agriculture Research (INIA), a Europe-wide research survey related to the loss of an increasing number of local cattle breeds. The survey is only for adult residents of this town/village (*Are you an adult resident of the area? If yes, continue*). The questionnaire takes approximately 15 minutes.*

*Like dogs or cats, there are many different types of cattle breeds (*interviewer to show a picture with different cattle breeds on it*) and different breeds have different uses. Local cattle breeds are not only associated with meat and milk production but also with the maintenance of traditional landscapes (such as through grazing riverside areas or mountain pastures), cultural events and special breed-related food products. They also may be useful in helping to adapt animal food production to changing conditions in the future. However, many of these breeds are facing increasing degrees of endangerment as agriculture becomes increasing industrialized and a relatively small number of standardized cattle breeds are being used.*

*In Spain 29 out of 36 local cattle breeds are threatened. Such is the case of the Alistana-Sanabresa breed, which is found mainly in Zamora Province and is particularly known for its singular meat and its ability to graze in the harsh Aliste and Sanabria regions.*

*We are interested in determining the public’s interest in recognizing the role of local breeds and supporting conservation programmes that will help ensure the continued existence of the breed and its associated services. Your answers will help to design and implement an appropriate conservation programme.*

***General questions***

Have you ever heard of the Alitana-Sanabresa breed? YES / NO

Have you ever seen a live animal of the Alistana-Sanabresa breed? *(Interviewer to show pictures of Alistana-Sanabresa breed*) YES / NO

*Before the industrialization of agriculture there were many breeds in Spain, each suited to producing under different agricultural and environmental conditions. Today most of these breeds, 29 out of 36, are endangered.*

*The Alistana-Sanabresa breed is one of these. In 1950’s it is calculated that there was 37.000 animals of the breed that were reduced to 10.000 in 198. Nowadays there is around 3000 breeding cows of the breed. If no action is taken and this trend continues, the Alistana-Sanabresa breed may become extinct.*

*Alistana-Sanabresa breed is still reared under semi-stabled traditional farming systems (animals freely graze in summer and are stabled during winter nights) in its origin regions of Aliste and Sanabria. The breed is also reared since the 1990’s in other Zamora Province regions under extensive system.*

Have you ever eaten any food products directly associated with the Alistana-Sanabresa breed? Such food products include a distinct tasting meat that is used in a variety of local dishes. YES / NO

(*For non-local area interviews only*). Have you ever been to the areas where the Alistana-Sanabresa breed is found? YES / NO

***Follow-up questions***

Please rank the attributes in order of the importance in making your choices (with 1 being most important, don’t rank those that were not important to you).

 🞏 Maintenance of the breed-related special food products

 🞏 Maintenance of local culture and traditions

 🞏 Maintenance of rural landscapes and environmental services

🞏 Possibility to re-establish the breed for future use if it becomes extinct

 🞏 Certainty of the breed existing in 50 years

🞏 How much I would pay

Thinking about the information presented earlier about the breed, please indicate your response to the following statements:

I understood the information in the questionnaire.

 🞏 Strongly agree

🞏 Agree

🞏 Neither agree nor disagree

 🞏 Disagree

 🞏 Strongly disagree

I needed more information than was provided.

🞏 Strongly agree

🞏 Agree

🞏 Neither agree nor disagree

🞏 Disagree

🞏 Strongly disagree

I found the choice questions difficult.

🞏 Strongly agree

🞏 Agree

🞏 Neither agree nor disagree

🞏 Disagree

🞏 Strongly disagree

***Socio-economic questions***

In this final section we would like to ask a few questions about yourself, to make sure the people we are surveying come from a range of backgrounds

Where do you live?

* Town/City ………………….(specify)
* Village………………………(specify)
* Countryside .......................(specify)

How long have you been living here? Years = ……………………………

In which age category are you?

1. 18-30
2. 31-45
3. 46-60
4. 61-75
5. 75+

Gender (*by observation*)

🞏 Male 🞏 Female

How many people live in your household?

* Number of Adults
* Number of children (<18)

Are you, or a member of your close family, associated with the farming sector (livestock or crop farming)?

* Yes 🞏 No

Into which professional category do you fall?

* Employed. Please specify type of job……………………….
* Unemployed
* Student

How would you rate your knowledge of the issues addressed in this survey on a scale of 1 to 10 (1 having no previous knowledge and 10 having extensive knowledge)?

Do you participate in outdoor activities in the countryside (e.g. walking, hiking, cycling, birding, camping, etc.) in the last 2 years? YES / NO

Does the existence of traditional agricultural landscapes and activities enhance your enjoyment of the country-side? YES / NO

When there has been a conflict between economic development and the environment in your region, have you tended to:

🞏 Favour preservation of the environment more frequently?

🞏 Favour economic development more frequently?

🞏 Favour economic development and environmental preservation equally?

🞏 Don’t know

What is the highest level of education you have obtained or are obtaining?

 🞏 Primary school

 🞏 Secondary school

 🞏 High school

 🞏 Diploma or trade certificate

 🞏 University

 🞏 Other (please specify)

To the best of your knowledge, please indicate the total annual income, after taxes, which your household earned last year:

 🞏 Under Euro 6,000

 🞏 Euro 6,000 – 14,999

 🞏 Euro 15,000 – 24,999

 🞏 Euro 25,000 – 49,999

 🞏 Euro 50,000 – 69,999

 🞏 Euro 70,000 – 99,999

 🞏 More than €100,000

 🞏 Don’t know

**Supplementary Table S1** *Distribution of interviews according to location, gender, job status and age*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | Age |  |
|  | Gender | Job status | 18-30 | 31-45 | 46-60 | 61-75 | >75 | Total |
| Villages (n=101) | Men | Employed | 6.9% | 15.8% | 17.8% | 2.0% | - | 42.6% |
| Unemployed | 2.0% | 5.0% | 5.9% | 6.9% | - | 19.8% |
| Student | 1.0% | - | - | - | - | 1.0% |
| Total | 9.9% | 20.8% | 23.8% | 8.9% | - | 63.4% |
| Women | Employed | 7.9% | 13.9% | 5.9% | 1.0% | - | 28.7% |
| Unemployed | 2.0% | 2.0% | 1.0% | 3.0% | - | 7.9% |
| Student | - | - | - | - | - | 0.0% |
| Total | 9.9% | 15.8% | 6.9% | 4.0% | - | 36.6% |
| Total | 19.8% | 36.6% | 30.7% | 12.9% | - | 100% |
| Zamora city (n=102) | Men | Employed | 6.9% | 10.8% | 9.8% | 1.0% | - | 28.4% |
| Unemployed | 3.9% | 3.9% | 3.9% | 4.9% | 2.0% | 18.6% |
| Student | 6.9% | - | - | - | - | 6.9% |
| Total | 17.6% | 14.7% | 13.7% | 5.9% | 2.0% | 53.9% |
| Women | Employed | 4.9% | 7.8% | 12.7% | - | - | 25.5% |
| Unemployed | 2.0% | 4.9% | 2.9% | 6.9% | - | 16.7% |
| Student | 3.9% | - | - | - | - | 3.9% |
| Total | 10.8% | 12.7% | 15.7% | 6.9% | - | 46.1% |
| Total | 28.4% | 27.5% | 29.4% | 12.7% | 2.0% | 100% |