This questionnaire is part of the PhD research by student Davidson Gomes Nogueira, which aims to know your opinion on the use of sustainable practices and certification tools for these practices in the Pantanal. We will ask questions related to your history in the region, your family connections with the first settlers of the Pantanal and the management tools on the properties. This research is being conducted in a partnership between UFMS (Postgraduate Program in Ecology and Conservation), Embrapa Pantanal and other institutions, such as the Smithsonian Institute and IPE, and aims to identify the reasons why rural producers would adopt or not certifications on their property in the Pantanal.

There are no right or wrong answers. We are only interested in your point of view. All responses in this questionnaire are confidential, being handled only by the group of researchers. If you want, a copy of the questionnaire provided to you. You can also contact my superiors if you wish to make complaints.

We thank you for collaborating with our research.

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0.1 Name

0.2 Profession:

0.3-Birth (year):

0.4-Property name:

0.5-Property size:

0.6-Herd size:

0.7-Area converted to non-native pasture:

0.8-Area flooded in flood (%):

0.9- Number of employees

0.10 – The era of the family already Yes ( ) No ( )

0.11 - How long have you been on this property?

0.12 – Are you part of the union? Yes No ( )

Instructions

The following questions use a 5-point scale; you should choose the number that best describes your opinion. Don't think too long about your answer; your first impression is usually the best answer. Please, if possible, do not skip any question and do not choose more than one number for the same question. Answer each question by circling the number or filling in the circles that best describe your opinion. Some questions may look similar, but they target different points of your opinion.

*Questions to measure the objectives of rural producers*

When you think about being a farmer, how important are the following items to you?

**OBJ\_1** 1. Obj2 – Being recognized and valued by society as a rural producer, for you it is:

Not important 1 2 3 4 5 Very important

**OBJ\_2** 3. Obj9 – Contributing to food production, for you it’s:

Not important 1 2 3 4 5 Very important

**OBJ\_3** 7. Obj5 – Generating as much profit as possible on your property, for you it is:

Not important 1 2 3 4 5 Very important

**OBJ\_4** 9. Obj6 – Acquiring more goods (eg more land, more herd, more machinery), for you it is:

Not important 1 2 3 4 5 Very important

**OBJ\_5** 13. Obj3 – Being recognized and valued by other rural producers, for you it is:

Not important 1 2 3 4 5 Very important

**OBJ\_6** 5. Obj4 – Keeping property in your family, for you it’s:

Not important 1 2 3 4 5 Very important

**OBJ\_7** 11. Obj7 – Conserving biodiversity in the Pantanal (wild animals and plants), for you it is:

Not important 1 2 3 4 5 Very important

**MOT\_1** 2. Mot2 – How motivated are you to increase your recognition and appreciation by society

Not motivated 1 2 3 4 5 Very motivated

**MOT\_2** 4. Mot9 – How motivated are you to contribute to food production

Not motivated 1 2 3 4 5 Very motivated

**MOT\_3** 8. Mot5 – How motivated do you feel to generate the greatest possible profit on the property

Not motivated 1 2 3 4 5 Very motivated

**MOT\_4** 10. Mot6 – How motivated are you to acquire more goods (for example, more land, larger herd, more machinery)

Not motivated 1 2 3 4 5 Very motivated

**MOT\_5** 6. Mot4 – How motivated are you to keep property in your family:

Not motivated 1 2 3 4 5 Very motivated

**MOT\_6** 12. Mot7 – How motivated are you to conserve biodiversity in the Pantanal (animals and plants)

Not motivated 1 2 3 4 5 Very motivated

**MOT\_7** 14. Mot3 – How motivated are you in trying to increase your recognition and appreciation by other rural producers:

Not motivated 1 2 3 4 5 Very motivated

15. DT26. - For you, having a more sustainable property than neighboring properties

Not important 1 2 3 4 5 Very important

16. DT36. How open do you feel to being open to new ideas for managing and managing your property:

Nothing open 1 2 3 4 5 Fully open

17. DT39. Do you believe the government supports sustainable cattle raising in the Pantanal?

Nothing 1 2 3 4 5 A lot

DT41. Do you find it difficult to contact the following institutions to participate in sustainable policies or actions regarding to livestock

18. DT41a. Government

Extremely difficult 1 2 3 4 5 Very easy

19. DT41b. NGOs

Extremely difficult 1 2 3 4 5 Very easy

20. DT41c. embrapa

Extremely difficult 1 2 3 4 5 Very easy

21. DT41d. Universities

Extremely difficult 1 2 3 4 5 Very easy

DT42. Do you normally trust the public policies or actions of the following institutions, focused on sustainable livestock?

22. DT42a. Government

Never 1 2 3 4 5 Always

23. DT42b. NGOs

Never 1 2 3 4 5 Always

24. DT42c. embrapa

Never 1 2 3 4 5 Always

25. Universities

Never 1 2 3 4 5 Always

26. DT43. Are there local organizations that support your property in initiatives focused on sustainable livestock (which includes native pasture management, biodiversity protection, aid for organic production, etc.)?

( )Yes; ( )No; ( )I do not know

27. DT44. Are there individuals who support properties in the implementation of sustainable livestock initiatives (which includes native pasture management, biodiversity protection, aid for organic production, etc.)

( )Yes; ( )No

###

**Consider the following idea of ​​conservation/management actions**

A program that would seek to help rural producers in the Pantanal. Its objectives would be to better understand how the farms are managed and celebrate the traditional livestock raising in the region. It would be based on the management of native pastures. This would allow us to understand how each farm would change over time and would point out ways to make the property more sustainable.

The idea of ​​sustainability within the program would be based on two main pillars: economic and environmental. According to these pillars, each property would have a score for each of these variables and that score would be compared over time. With that, then, mechanisms could be created so that farms with higher scores could have economic benefits. Either by reductions on taxes, lower interest rates in banks, or even rewards to farmers.

In the economic aspects, the index would regard variables such as calf price, cost-revenue, and profit-revenue. Detailed analysis of these variables or indicators would allow evaluating in economic terms of each property. With this, the producer could understand, for example, where his biggest flaws and his biggest successes in managing his farm are.

As for the environmental side of the index, the objective would be to understand the changes in vegetation types that have taken place or are taking place on each property and especially the use of native pasture being maintained or converted, into brachiaria, for example. Thus, the index would assess how the property's landscape has changed over the years, looking at issues such as area formation, native pastures, increase in cecropia trees, areas that have dried up or become permanently flooded. This photograph would show the diversity of each property and how it has changed over the years.

The combination of these economic and environmental variables would create a score for the farms in the program, without the objective of generating competition. And with each new assessment, the owner could understand what has changed in the management of his property and how he could improve or celebrate those actions that worked. It is worth emphasizing that the main objective of the program would be to celebrate sustainable livestock practices in the region.

*Questions to measure the identity of rural producers*

**IPE\_1** 28. IP1 – Do you see yourself as a traditional Pantaneiro?:

Strongly Disagree 1 2 3 4 5 Completely Agree

**IPE\_2** 29. IP2 – Do you feel proud to be a traditional Pantaneiro?:

Strongly Disagree 1 2 3 4 5 Completely Agree

( ) Not applicable

**IPE\_3** 30. IP3 – Do you feel that being a traditional Pantaneiro is an important part of your own identity:

Strongly Disagree 1 2 3 4 5 Completely Agree

( ) Not applicable

**About the program we just created**

31. DT5a. Do you believe such a program would improve the health of the people living on your property?

Strongly Disagree 1 2 3 4 5 Strongly Agree

32. DT7. Would the program improve natural resources (such as clean water, better air quality)?

Strongly Disagree 1 2 3 4 5 Strongly Agree

33. DT10. Do you believe that a program like this is in line with your beliefs and values?:

Strongly Disagree 1 2 3 4 5 Strongly Agree

34. DT11. Do you believe that a program like this seeks to celebrate practices that you have already adopted at some point?

Strongly Disagree 1 2 3 4 5 Strongly Agree

35. DT12. Do you believe that a program like this would solve some of the difficulties you face every day?

Strongly Disagree 1 2 3 4 5 Strongly Agree

36. DT13. Does a program like this coincide with your current practices?

Strongly Disagree 1 2 3 4 5 Strongly Agree

37. DT14. Do you believe the pillars of a program like this are easy to understand?

Strongly Disagree 1 2 3 4 5 Strongly Agree

38. DT15. Do you believe a program like this would be easy to use?

Strongly Disagree 1 2 3 4 5 Strongly Agree

39. DT8. Do you believe that a program like this would bring some risk to your farm?

Strongly Disagree 1 2 3 4 5 Strongly Agree

40. DT9. Do you believe that a program like this would bring quick results to your farm?

Strongly Disagree 1 2 3 4 5 Strongly Agree

41. DT28a. Would you know the possible changes you should make to your farm as part of implementing a program like this?

Strongly Disagree 1 2 3 4 5 Strongly Agree

42. DT27. Are you familiar with FPS certification

Strongly Disagree 1 2 3 4 5 Strongly Agree

43. DT28b. Are you familiar with the possible changes you should make to your farm as part of implementing FPS certification?

Strongly Disagree 1 2 3 4 5 Strongly Agree

Not applicable ( )

*Questions to measure the effectiveness of conservation programs in contributing to achieving rural producers' objectives*

How much do you think adopting a conservation program like this would contribute to:

**EFE\_1** 44. Efe5 /DT3 – Generate the highest possible profit on your property

little 1 2 3 4 5 a lot

**EFE\_2** 45. Efe2 / DT6 – Increase your recognition and appreciation by society

little 1 2 3 4 5 a lot

**EFE\_3** 46. Efe4 – Keep property in your family

little 1 2 3 4 5 a lot

**EFE\_4** 47. Efe3 – Increase your recognition and appreciation by other rural producers

little 1 2 3 4 5 a lot

**EFE\_5** 48. Efe6 – Acquire more goods (eg more land, bigger herd, more machinery)

little 1 2 3 4 5 a lot

**EFE\_6** 49. Efe7 – Conserving biodiversity in the Pantanal (animals and plants)

little 1 2 3 4 5 a lot

**EFE\_7** 50. Efe9 – Contribute to sustainable food production

little 1 2 3 4 5 a lot

*Questions to measure the perceived behavioral control of rural producers in relation to conservation programs*

**PBCCO\_1** 52. PBC4co – The adoption of a program like this on your farm in the Pantanal in the next 3 years is under your control:

Strongly Disagree 1 2 3 4 5 Completely Agree

**PBCCO\_2** 53. PBC3co – Do you feel confident that you could adopt a program like this on your farm in Pantanal in the next 3 years:

Strongly Disagree 1 2 3 4 5 Completely Agree

**PBCCO\_3** 51. PBC5co – Adopting a program like this on your farm in Pantanal in the next 3 years depends more on you than on others:

Strongly Disagree 1 2 3 4 5 Completely Agree

**PBCCO\_4 -** PBC1c – Se você quisesse, você pode facilmente adotar o programa FPS na sua fazenda no Pantanal nos próximos 3 anos:

*Discordo completamente* 1 2 3 4 5 *Concordo completamente*

**PBCCO\_5 -** PBC2c – Se você quisesse, teria capacidade de adotar a certificação FPS na sua fazenda no Pantanal nos próximos 3 anos:

*Discordo completamente* 1 2 3 4 5 *Concordo completamente*

*Questions to measure the attitudes of rural producers in relation to the program*

**ATT\_1** 54. ATT1i – Adopting a program like this on your farm in the Pantanal in the next three years would be:

Disadvantageous 1 2 3 4 5 Very Advantageous

**ATT\_2** 55. ATT2i – Adopting a program like this on your farm in the Pantanal in the next three years would be:

Not important 1 2 3 4 5 Very Important

**ATT\_3** 56. ATT3i – Adopting a program like this on your farm in the Pantanal in the next three years would be:

Useless 1 2 3 4 5 Useful

**ATT\_4** 57. ATT6a – Adopting a program like this on your farm in the Pantanal in the next three years would be:

Unsatisfactory 1 2 3 4 5 Satisfactory

*Questions to measure the subjective norm of rural producers in relation to the program*

**SUB\_NOR\_1** 58. NS1i - Most of the people who matter to you would support you if you decided to adopt a program like this on your farm in Pantanal in the next 3 years:

Strongly Disagree 1 2 3 4 5 Completely Agree

**SUB\_NOR \_2** 59. NS4d – Most farmers you know would be interested in adopting a program like this on their farms in the Pantanal in the next 3 years:

Strongly Disagree 1 2 3 4 5 Completely Agree

**SUB\_NOR \_3** 60. NS3d - So how many farmers do you know do you think would adopt a program like this on their farms in Pantanal in the next 3 years?

Almost none 1 2 3 4 5 Almost all

*Questions to measure the intention of rural producers in relation to the program*

**INT\_1** 61. INT1 – How strong is your intention to adopt a program like this on your farm in Pantanal in the next three years?

Very weak 1 2 3 4 5 Very strong

**INT\_2** 63. INT2 – You plan to adopt a program like this on your farm in the Pantanal in the next three years:

Strongly Disagree 1 2 3 4 5 Completely Agree

**INT\_3** 62. INT3 – How likely is it that you will adopt a program like this on your farm in Pantanal in the next three years?

Unlikely 1 2 3 4 5 Very likely

64. DT4. Given the program's requirements to certify a farm as sustainable, you believe you would need to make an initial financial investment

Strongly Disagree 1 2 3 4 5 Strongly Agree

65. DT23. Would you be able to make this financial contribution?

Impossible 1 2 3 4 5 Definitely

*Questions to measure behavioral beliefs related to the program*

**CC\_1**

66. CC1b – Having as much areas converted to pasture as possible on your farm, for you it’s something:

Not important 1 2 3 4 5 Very Important

67. CC1a- Do you need to have everything that the law allows for a converted area to make a profit? (legislation allows about 40%)

Strongly Disagree 1 2 3 4 5 Completely Agree

**CC\_2**

69. CC2a – A farm certified as sustainable would guarantee a greater number of animals on the farm, you:

Strongly Disagree 1 2 3 4 5 Completely Agree

70. CC2b - The largest number of wild animals on a farm certified as sustainable is:

Not important 1 2 3 4 5 Very Important

**CC\_3**

71. CC3a – Do you believe that a program like this recognizes the value of the traditional Pantaneiro:

Strongly Disagree 1 2 3 4 5 Completely Agree

72. CC3b – Recognition of the traditional Pantaneiro through a certification, for you is:

Not important 1 2 3 4 5 Very Important

**CC\_4**

68. CC4a – It is essential that the program brings some financial gain to the owners:

Strongly Disagree 1 2 3 4 5 Completely Agree

73. CC4b – The possible financial gain that a certification can bring, for you is:

Not important 1 2 3 4 5 Very Important

74. DT18. Do you believe that a farm certified as sustainable would have visible results

Strongly Disagree 1 2 3 4 5 Strongly Agree

75. DT19. Do you believe that the program and its results would be visible to society

Strongly Disagree 1 2 3 4 5 Strongly Agree

76. DT5b. A certification like this would guarantee greater tenure security for you (eg it would prevent invasions and expropriations).

Strongly Disagree 1 2 3 4 5 Strongly Agree

*Questions to measure normative beliefs*

**CN\_1**

77. CN1a/DT30 - Matters related to livestock management, pasture formation, do you talk, discuss and incorporate suggestions from your neighbors or friendly farmers?

Never 1 2 3 4 5 Always

78. CN1b/DT30 - Do you believe that neighboring farmers or friends would support you in joining your farm in a program like this?

Unlikely 1 2 3 4 5 Very likely

**CN\_2**

79. CN2a/DT30 - Matters related to livestock management, pasture formation, do you talk, discuss and incorporate suggestions from your family members?

Never 1 2 3 4 5 Always

80. CN2b/DT30 - Do you believe that your family would support you if you decided to join your farm in a program like this?

Unlikely 1 2 3 4 5 Very likely

**CN\_3**

81. CN3a/DT30 - Matters related to livestock management, pasture formation, do you talk, discuss and incorporate suggestions from the foreman and/or manager of your farm?

Never 1 2 3 4 5 Always

82. CN3b/DT30 - Do you believe that the foreman and/or manager of your farm would support you if you decided to join your farm in a program like this?

Unlikely 1 2 3 4 5 Very likely

**CN\_4**

83. CN4a - Matters related to livestock management, pasture formation, do you talk, discuss and incorporate suggestions from the rural union?

Never 1 2 3 4 5 Always

84. CN4b - Do you believe that the rural union would support you if you decided to join your farm in a program like this?

Unlikely 1 2 3 4 5 Very likely

85. DT38. How often do you have informal or formal interactions with neighboring properties?

( )Once a week; ( ) once a month; ( ) once every 6 months; ( ) once a year; ( ) Never

*Questions for measuring control beliefs*

**CCO\_1**

86. CCo1a – Does this possible aid from the program in relation to production, preservation and the fair labor standards help in the management of your farm?

Strongly Disagree 1 2 3 4 5 Strongly Agree

87. CCo1b – How important would aid from a program like this be in relation to production, environmental preservation and the fair labor standards?

Not important 1 2 3 4 5 Very Important

**CCO\_2**

88. CCo3a - Could the possible sale or division of your farm be an impediment for you to incorporate your farm into a program like this in the next 3 years?

Strongly Disagree 1 2 3 4 5 Strongly Agree

89. CCo3b - The possibility of selling or dividing the farm in relation to the implementation of a program like this:

Not important 1 2 3 4 5 Very Important

90. DT25. I would wait to see how such a program would be doing before we start using it.

Strongly Disagree 1 2 3 4 5 Strongly Agree

91. DT29. Do you believe your properties have the necessary requirements to implement a program like this?

Strongly Disagree 1 2 3 4 5 Strongly Agree