

Interactive comment on “Farmers’ perceptions of and adaptation strategies to climate change and their determinants; the case of Punjab province, Pakistan” by M. Abid et al.

Anonymous Referee #1

Received and published: 24 November 2014

General comments

This study reveals interesting results on farmers’ perception and willingness / opportunity to adapt to climate change from a vulnerable region. The research questions are stated clearly. Though, the introduction contains repeating information and should be shortened. The conclusion section basically repeats arguments from the discussion. The concluding sentences are rather general and not closely connected to the findings. Here, the conclusion should be rewritten more concisely.

Specific comments

p. 1361, l.3: what is ment by “yield”, is it yield per area, overall production, or production
 C576

per capita?

p. 1362, 2nd paragraph: This paragraph can be integrated into the previous text.

p. 1362, l. 26-28: the information “and their adaptive behavior which is imperative to understand climate change adaptation in agriculture because farmers are the primary decision makers and stakeholders in the agriculture sector.” Should be integrated into the previous text, where reasons for the importance of farmers with respect to climate change adaptation are given.

p. 1363, 2nd paragraph: The research questions are clearly stated. But the information afterwards partly is a repetition of previous arguments. It should be shortened.

p. 1369, l. 12: Why Zone D and not C?

p. 1369, l. 18-19: “based on the agriculture share to the total national economy, weather and climatic conditions, cropping patterns and irrigation networks in the area.”: It should be explained whether a wide range of climatic conditions, cropping patterns, etc. was searched for or homogenous conditions.

p. 1369, l. 20: Which criterion?

I suggest to place section 3.2 before 3.1. so that the reader first understands the study region. Then, it is clearer, why the particular features were used to select the villages.

p. 1371, l. 14-24: This paragraph repeats information from the introductions and partly from the methods section. It should be omitted.

p. 1372, L. 22-23: “Overall decrease in responses from perception to adaptation stage was 29 %.” Does that refer to 81% of all farmers perceived some kind of climate change (l. 12), but only 52% really adapt (81%-29%)? If so, this sentence should be corrected, because this is not a decrease by 29%, but a drop from 81% to 52%.

p. 1373, l.10: Why is renting out land an adaptation to climate change?

p. 1374, l. 4-7: "The major constraints identified by the majority of the respondents (Fig. 6) were the lack of information (44%) and lack of money (22%) followed by resource constraint (17 %), shortage of irrigation water (14 %) and other constraints (2 %)." Were those constraints asked one after the other in the questionnaire, as is was a fully structured one? If so, it should be explained, why those constraints were chosen (pre-test period for the questionnaire?).

p. 1374, l. 23-27, like p. 1374, l. 4-7 Figure 1: This figure appears in the introduction. But isn't it a result of this study? If so, it should be placed into the result section.

Technical corrections

p. 1361, l.2: "food- insecure" -> "food-insecure"

p. 1361, l.7: "has indexed" -> "has been indexed"

p. 1363, l. 5-7: "i.e. how farmers perceive long term changes in surrounding climate and how they adapt their farming in response to perceived changes in climate?" -> "i.e. how do farmers perceive long term changes in surrounding climate and how do they adapt their farming in response to perceived changes in climate?"

p. 1368, l. 6: "thee" -> "the"

p. 1370, l. 5-6 "in selected union councils of three study districts of Punjab." can be omitted.

p. 1372, l. 20-22: "As can be observed from the results, from perception stage to intention stage an 8.2% reduction was observed in responses while from intention stage to adaptation stage, responses of farm households were reduced by 22.6 %." This sentence should be reformulated.

p. 1373, l. 2: "of 10–20 year" -> "of the past 10–20 years"

p. 1375, l. 25: "are having" -> "had" Figures 3, 4, 7, 8, and 9: The texts and numbers along the axes and inside the figures are too small.

C578

Interactive comment on Earth Syst. Dynam. Discuss., 5, 1359, 2014.