

Dear Prof. Alfonso Moriana-Elvira,
Spanish Journal of Agricultural Research

I would like to inform you that the manuscript SJAR 2190 entitled “**A multi-attribute preference model for optimal irrigated crop planning under water scarcity condition**” has been revised. The reviewers' questions, comments, and remarks were much considerable and improved the paper quality. I would like to express my gratitude to you and the anonymous reviewers for the many useful suggestions. The paper was modified based on the comments. All the mentioned changes have nearly been made. It was also asked some questions and spatial comments by the reviewers, which have been answered in the following. I accurately checked English of the paper again and did some needed corrections. Also, one of my English native speaker colleagues checked the paper. All his comments were considered on the revised paper. I am sure that the paper was considerably improved and can be published in *Spanish Journal of Agricultural Research*.

I have modified the manuscript accordingly, and the detailed corrections are listed below point by point:

1. READER CANNOT SEE THE DATA OF FIGURE 1. YOU SHOULD CHANGE IT IN A TABLE WHERE THE PERCENTAGE OF EACH CROP IN EACH SCENARIO IS INCLUDED.

Figure 1 was eliminated. According to the reviewer comments, the scenarios had been reduced to the only scenarios which analyzed in the results' part (E₅ and P₂).

2. WHEN YOU ARE WRITING ABOUT THE WATER SOURCE, THE FIRST TIME THAT “MCM” APPEAR YOU SHOULD WRITE FULL (MILLIONS OF CUBIC METER?).

The first sentence time that MCM appears in the text is “The programmable surface water and groundwater in the agricultural sector, with a mining allowance of groundwater factor of 0.83, are considered 39.270 and 93.823 millions of cubic meter (MCM), respectively”. This sentence was revised and millions of cubic meter (MCM) was appeared in the sentence.

3 AND 4.

YOU SHOULD DELETE FIGURE 2.

FIGURE 2. IT IS NOT REQUIRED. IT IS RECOMMENDED TO REMOVE.

According to the reviewer's comment, Figure 2 was removed.

5. CHECK THE ENGLISH; I THINK THAT “MINING” HAS NOT THE CORRECT MEANING.

The mining allowance of groundwater resource factor (=1 when no mining is allowed) can be determined as the ratio of the groundwater allocation to the command area to the annual recharge of groundwater resources. This definition has been already used by Montazar (2011), Montazar et al. (2010), and Khare et al. (2006). The explanation was increased to the text.

6. FIGURE 3 IS NOT CLEAR.

The quality of Figure 3 was improved.

7 AND 8.

YOU SHOULD INCLUDE THE FULL WORD FOR THE ABBREVIATIONS (IN THE CAPTION) AND EXPLAIN IN THE TEXT BETTER HOW THE FIGURE SHOULD BE READ.

THE EXPLANATION OF SUBMODELS IS NOT CLEAR. YOU WRITE ABOUT THREE LEVELS, IT WOULD BE BETTER IF YOU ENUMERATED THEM. INCLUDED THE ABBREVIATIONS IN THE SECOND SUBMODEL OF THE CRITERIA THAT ARE THE SAME THAT IN THE FIRST.

The levels of each sub-model were enumerated in the text and the mentioned Figure. Also, the abbreviations in the sub-model two were completely included in the text. In other word, the part of constructing the hierarchy structure of problem and form the levels of hierarchy were explained better in the text and on the Figure.

9 AND 10.

THE EXAMPLE OF TABLE 1 AND 2 IS VERY CONFUSED. YOU SHOULD INCLUDE IN THE TABLE WHICH THE MEANINGS OF THE NUMBERS ARE. IN ADDITION YOU SHOULD REWRITE THE EXAMPLE. YOU WRITE THAT “THE EVAPOTRANSPIRATION CRITERIO HAS THE SAME IMPORTANCE AS IRRIGATION METHODS AND SOIL TEXTURE CRITERIA IMPORTANCE RATIO 5:1” AND THIS IS NOT CORRECT. AS YOU EXPLAIN THE SAME IMPORTANCE WOULD BE A 1:1. THEREFORE, I THINK (I AM NOT SURE BECAUSE IS NOT CLEAR EXPLAIN) THAT WHEN I FIND A “5” IN THE COMPARISON OF ET WITH ST THAT ET ISLES IMPORTANT FROM YOUR SURVEY THAT ST. IF IT IS, YOU SHOULD WRITE SOMETHING THAT “ET HAS LESS IMPORTANCE THAT IRRIGATION METHOD AND SOIL TEXTURE CRITERIA, IN BOTH COMPARISONS OBTAINED A 5:1 IMPORTANCE RATIO (TABLE 1)”. YOU SHOULD ALSO EXPLAIN (IN THE TABLE AND IN THE TEXT) WHY SOME COMPARISONS HAVE TWO NUMBERS (I.E 1/3) INSTEAD OF ONE.

IN MATERIAL AND METHOD SECTION, THE MAIN PROCEDURES ARE NOT SATISFACTORY EXPLAINED. THUS, THE EFFECTIVE FACTORS ARE ENUMERATED (PAGE 7-8) BUT A DETAILED DESCRIPTION OF EACH ONE IS REQUIRED. THUS, THE CONTRIBUTION OF, FOR EXAMPLE, THE ROLE OF THE EVAPOTRANSPIRATION IN THE DETERMINATION OF THE TYPE OF CROPS MUST BE EXPLAINED. THE CURRENT LIMITED EXPLANATION OF THE PROCEDURES GENERATES SERIOUS DOUBTS IN THE PROCEDURES: TABLES 1 AND 2 REQUIRED A DETAILED EXPLANATION. FOR EXAMPLE IN PAGE 9 AUTHOR INDICATES THAT “THE EVAPOTRANSPIRATION CRITERION HAS THE SAME IMPORTANCE AS IRRIGATION METHOD AND SOIL TEXTURE CRITERIA (IMPORTANCE RATIO 5:1)”. WHAT IS THE MEANING OF THIS SENTENCE? HOW WAS DETERMINED THIS? HAS THE SAME IMPORTANCE FOR WHAT?

Firstly:

The objective of this study is to develop a comprehensive multi-criteria model for selecting adequate cropping pattern in an irrigation command area. The hierarchical analysis model of selecting adequate cropping pattern is assessed based on different criteria and parameters. The model developed in this study, is of two sub-models. In the first sub-model, three levels are considered in the hierarchical analysis for ranking the type of crops in the cropping system, which are: objective level (level one), selecting the best type of crop (level two); the criteria level (level three) which are the parameters involved in the selection of crop type (11 criteria); finally, alternative or option level, regional main crops of the study area.

In order to determine the type of crops in the cropping pattern, the effective factors are considered in three groups: socio-economical, water and soil resources, and climatic criteria. The first group, socio-economical, includes water price, cultivation-maintenance and harvesting costs of the crop, crop value, crop water productivity and regional demand to the crop. The second one, water and soil resources, includes available water, water quality, soil texture, and irrigation method. The last group, climatic criteria, which is the climatic factor including the amounts of evapotranspiration and rainfall.

After ranking the crops by sub-model one, the percentage of cultivated area for each of the ranked crops is obtained by sub-model two. In this sub-model, three levels are also considered in the structure of hierarchical analysis for determining the relative crop area, which are: objective level (level one), to determine the relative crops areas; criteria level (level tow), the factors effective in the determination of cultivation area of cropping pattern crops (nine factors); alternatives level or relative crops areas (level three) which is considered in nine classes (< 1%, 1-5%, 5-10%, 10-20%, 20-30%, 30-40%, 40-50%, 50-60% and >60% of the irrigation district).

The nine effective factors in selecting percentage of cultivated area of cropping system are: national agricultural policies by government, available water, water price, cultivation-maintenance and harvesting costs of the crop, constraint on groundwater availability, crop value, crops disease susceptibility, farmers' abilities and skills, and consumption market accessibility. It should be noted that all effective factors in determining of the type of crops (1st sub-model) and the percentage of cultivated area for each of the ranked crops (2nd sub-model) are recognized the most important effective factors in the determination process of crop planning for an irrigation command area.

The outputs of the sub-models are integrated to have the global priority scores of type of crop, 1st sub-model, and percentage of the cultivated area for each crop, 2nd sub-model. The rank of the type of crops is obtained from the first sub-model. For each of these crops, also, the rank of crop cultivated area is determined from the second sub-model, which is considered in the mentioned six classes. Other word, the results of each sub-model are considered separately, but cropping pattern includes determination of crop type and percentage of cultivated area. Hence, the results of sub-models can be integrated and used for crop planning.

In fact, the manuscript presents a decision tool for optimal irrigated crop planning and water resources sustainability. It can be used to aggregate preferences in order to obtain a group decision, improve understanding of the choice problem, accommodate multiple objectives and increase transparency and credibility in decision making by actively involving relevant criteria in the crop planning. AHP provides information on the relative importance of the different attributes and the tradeoffs involved, which could improve the decision making on crop planning.

Secondly:

Once the hierarchy has been constructed, the experts analyze it through a series of *pairwise comparisons* that derive numerical scales of measurement for the nodes. The criteria are pairwise compared against the goal for importance. The alternatives are pairwise compared against each of the criteria for preference. The comparisons are processed mathematically, and priorities are derived for each node. Priorities are numbers associated with the nodes of an AHP hierarchy. They represent the relative weights of the nodes in any group. Priorities are absolute numbers between zero and one, without units or dimensions. A node with priority .20 has twice the weight in reaching the goal as one with priority .10, ten times the weight of one with priority .02, and so forth. Depending on the problem at hand, "weight" can refer to importance, or preference, or likelihood, or whatever factor is being considered by the decision makers. Priorities are distributed over a hierarchy according to its architecture, and their values depend on the information entered by users of the process. Priorities of the Goal, the Criteria, and the Alternatives are intimately related, but need to be considered separately.

With the above description and according to Table 1, Evapotranspiration with priority of 5.0 has five times the weight of Irrigation method and Soil texture with priority of 1.0. Then, we can say the Evapotranspiration criterion has the same importance compare to Irrigation method and Soil texture criteria. This part was revised in the paper. Also, $1/3$ is an absolute number, which is equal 0.33, but here it is presented as $1/3$.

In fact, Table 1 and 2 show the relative importance of each of decision attributes (criteria) regarding their contributing importance in the general objective for the sub-model 1 and 2, respectively.

In addition of revising some parts of material and methods, the above materials and some other descriptions were added to the text body to make the paper clearer.

11. YOU ARE USING IN THE RESULT SECTION ONLY THE CASES E5 AND P2. IN ORDER TO IMPROVE THE CLARITY PLEASE DELETE THE REST OF SCENARIO PRESENTED IN MATERIAL AND METHODS.

According to the reviewer's comment, only the scenarios E₅ and P₂ were considered and analyzed in the paper. The rest of scenarios presented in material and methods were deleted. Also, Figure 1 was modified and some part of material and methods, and results and discussion were accurately revised.

12. THUS, THE AREA CHARACTERIZATION IS VERY LIMITED: THE AUTHOR INDICATES THAT THE STUDY WAS UNDER WATER SCARCITY CONDITION BUT HOWEVER THE DESCRIPTION OF THIS SCARCITY IS OMITTED, AND IRRIGATION CHARACTERIZATION ABOUT IRRIGATION METHOD, RATE AND IRRIGATION APPLIED BY CROP, VARIABILITY OR A DESCRIPTION OF THE ORGANIZATION OF THE IRRIGATION IS NULL.

13 AND 14.

PAGE 5. PARAGRAPH 2. A FULL DETAILED DESCRIPTION OF THE WATER REQUIREMENTS AND WATER SUPPLIES IS REQUIRED. THUS, THE AVERAGE RAINFALL, IRRIGATION APPLIED AND WATER REQUIREMENTS FOR THE MAIN CROPS IN THE AREA MUST BE INCLUDED IN THIS SECTION.

YOU SHOULD INCLUDE IN THE DESCRIPTION OF THE IRRIGATION DISTRICT CLIMATOLOGICAL DATA, ESPECIALLY THE ONES RELATED WITH IRRIGATION (AMOUNT AND DISTRIBUTION OF RAINFALL, ETO, MAXIMUM AND MINIMUM TEMPERATURE). IF THEY ARE VERY DIFFERENT YOU SHOULD ALSO INDICATE AND SEPARATED IN DIFFERENT ZONES.

According to the reviewer's comment, the following details were added to the text:

The average annual precipitation is 413.6 mm, which corresponds to semiarid conditions. The mean annual temperature is 13.8°C. The evapotranspiration of the main crops of the area during growing season may be obtained in Table (1). The available surface water is considered 39.270MCM, which supplies at 31.744 MCM during the 6 months of March to August, i.e., at 80% of annual water delivered. During August to December, the available surface water decreases to 7.526 MCM, and during January, there is no available surface water. The water level varies from 10 to 85 m below the ground level. The recharge to the aquifer consists of the recharge due to rainfall (10% as percolation of precipitation), canal seepage and the deep percolation from the root zone of the crop grown which is estimated at 30% of the total allocated water in KID (Montazar, 2010).

Table (1) The growing season evapotranspiration of the main crops of the area

Crop	Wheat	Bean	Colza	Maize	Summer crops	Rice	Tomato	Cucumber	Barley	Sugar beet
ET (mm)	409.5	671.9	366.7	713.6	510.0	872.2	761.5	607.6	419.9	814.8

Large parts of the region have only limited freshwater resources. In other parts, potential resources are insufficiently known to permit reliable planning. The gravity irrigation and flooding accounts around 95% of the total irrigated agricultural area, and the rest use pressurized irrigation systems. This will aggravate erosion especially in sloping plots. Irrigation systems consist of an open canal network, generally unlined, with rudimentary water intakes and distribution systems supplying small plots devoted mostly to subsistence agriculture. Less than 10% of irrigated land is equipped with improved on-farm irrigation systems. However, traditional irrigation schemes need to be modernized so as to achieve higher yields as well as better resource utilization. The majority of the rainfall occurs between November and May; the rest of the year irrigation depends on low-tech systems. Several institutional frameworks have been created by the local farmers, which are organized under Lorestan Water Company (LWC).

15 AND 16. THE MANUSCRIPT REQUIRES VERY SIGNIFICANT IMPROVEMENTS. THE REVISION TASK WAS EXTREMELY HARD DUE TO THE MANUSCRIPT OMITTED VERY SIGNIFICANT AND ESSENTIAL INFORMATION TO UNDERSTAND THE METHODOLOGY AND RESULTS DESCRIBED. SIMILAR TO MATERIAL AND METHOD SECTION, RESULTS SECTION REQUIRES A SIGNIFICANT IMPROVEMENT. FOR EXAMPLE THE PROCEDURE TO DETERMINE THE DATA INCLUDED IN TABLES 3 AND 4 IS NOT CLEAR. IF IT WAS USED A SURVEY, INFORMATION ABOUT THE SIZE, PROCEDURE OF SELECTION OF USERS, QUESTIONNAIRE, ETC. MUST BE INDICATED.

In order to weigh the criteria and options as well as the aforementioned effective items, some questionnaires are provided for experts and ideologists of water industry. The ideologists of water industry are professor of universities and government agency officer/researcher, which teach and do research on the operational irrigation network management. They are of ample knowledge on the agricultural water management and agronomy science and are very familiar with the conditions of Iranian irrigation districts. Therefore, they can give a proper judgment or assessment on each item. Actually, they are some professional people on the agricultural water and agronomy science topics.

The questionnaires were designed in such a way that the respondents could select their priorities in the criteria and options. Thirty five qualified experts are invited to attend the survey. The experts are of ample knowledge on the agricultural water management and agronomy science and are very familiar with the irrigated crop planning in the agricultural areas. Therefore, they can give a proper judgment or assessment on each item. Their work provides reliable information for the research. It should be noted that the work is not a survey oriented research. I just got the opinion of some expert on the weight of the criteria. The size is not important in this activity but should be more than 10 people for such work.

More information was presented about the experts and ideologists. A major revision was done on the paper. I believe that the paper is considerably improved and the methodology and the results are completely understandable in the revision version.

17. ANALYZING THE SPECIFIC RESULTS, IT IS STRANGE THAT IN WATER SCARCITY CONDITION THE CRITERIA WEIGHT FOR "AVAILABLE WATER, AW" WAS UNIQUELY 0.2 (TABLE 3). AUTHOR MUST EXPLAIN WHY THIS LOW VALUE (FOR EXAMPLE IN DRY AREAS IN EUROPE, THE AVAILABILITY WATER IS ALMOST THE UNIQUE FACTOR CONSIDERED FOR THE FARMERS IN ORDER TO DECIDE THE CROPPING PATTERN, AND OTHER FACTORS SUCH AS WATER PRODUCTIVITY, WATER PRICE OR SOIL TEXTURE ARE NEGLIGIBLE). THE SAME CONSIDERATIONS ARE VALID FOR SUB-MODEL 2. SIMILAR CONFUSING RESULTS ARE PROVIDED IN TABLE 5. A MUCH BETTER EXPLANATION OF THESE RESULTS IS REQUIRED. IN ADDITION, SOME STRANGE VALUES ARE SHOWN: AVAILABLE WATER AND RAINFALL MUST HAVE SIMILAR RESULTS DUE TO FINALLY IN BOTH CASES IS WATER AVAILABLE FOR THE CROPS, BUT HOWEVER, THE ORDER OF THE CROPS IN TABLE 5 IS ABSOLUTELY DIFFERENT. EQUALLY THE ROLE OF "EVAPOTRANSPIRATION" IS NOT CLEAR: AT IRRIGATION DISTRICT SCALE IT IS DIFFICULT TO UNDERSTAND A CLEAR EFFECT OF THE EVAPOTRANSPIRATION ON THE CROPPING PATTERN. POSSIBLY, WITH A BETTER EXPLANATION OF THE RESULTS THESE DOUBTS WOULD BE SOLVED.

The available water criterion has the highest weight in detecting crop type (with weight of 0.20). The great importance of this criterion is because of water availability restriction. Surface water supplies are inadequate to meet irrigation needs of crops. Consequently, groundwater is being heavily exploited through the integrated wells. Hence, the uncontrolled heavy pumping of groundwater has caused over-exploitation in the area. Please don't forget that we considered 11 criteria, which available water is one of them and of course the most

important factor in crop planning. The results are absolutely correct. The weight of available water is 20% and the weight of ten other criteria is 80%, which 16% of it is related to crop water productivity and the rest (64%) for others. It means just available water and crop water productivity have over 30% importance in crop planning. Of course we can consider the importance of available water 100%, but for most areas there are several factors (here 11 factors), which they affect in crop planning.

Water availability and evapotranspiration (ET) are two evaluation factors for selecting the type of crop, which their effects have to separately consider in the process. Evapotranspiration determines the water demand by the crop, and hence, it may be considered as an important factor in crop planning process. According the results presented in Table 3, the weight of ET criterion is determined equal 0.11 (11%), which it shows the importance of ET. This explanation was added into the text.

Table 5 shows how the importance of each decision attribute in the first sub-model is varied over the alternatives, respectively. It indicates how the options are prioritized over others with respect to each objective as well as the overall objective. For example, variability in importance of the crop water productivity across crop type of cropping system is as follows: Maize>Wheat>summer crops>Cucumber>Tomato>Bean>Barley>Colza>Sugar beet>Rice. The results demonstrate that this variability for the criterion of available water may be changed as Colza>Wheat=Barley>Maize>summer crops>Cucumber>Tomato>Bean>Sugar beet>Rice. However, it shows how a crop was prioritized relative to other crops with respect to each criterion as well as overall objective. The above materials were added to the paper to make it clearer.

18 AND 19. A SIGNIFICANT PART OF THIS MANUSCRIPT IS BASED ON A PREVIOUS PUBLICATION ("MONTAZAR A 2011; "A DECISION TOOL FOR OPTIMAL IRRIGATED CROP PLANNING AND WATER RESOURCES SUSTAINABILITY" IN JOURNAL OF GLOBAL OPTIMIZATION).

THUS, FIGURE 1 INCLUDES A HUGE NUMBER OF SCENARIOS THAT NEVER ARE USED IN THE MANUSCRIPT, OR A SIGNIFICANT NUMBER OF RESULTS DESCRIBED IN THIS MANUSCRIPT ARE COMPARED AND ANALYZED WITH THE PREVIOUS PUBLICATION. THE AUTHOR MUST CLARIFY THE IMPROVEMENT OBTAINED IN THIS MANUSCRIPT RESPECT TO THE PUBLICATION OF 2011.

My previous paper entitle: "A decision tool for optimal irrigated crop planning and water resources sustainability" is under press at Journal of Global Optimization (DOI 10.1007/s10898-011-9803-1). I used the results of this publicaton. In that study, the conjunctive use policies of surface and groundwater resources was developed for minimizing water shortage in an irrigation district subject to constraints on groundwater withdrawals and crop planning capacities. An integrated soil water balance algorithm was coupled to a non-linear optimization model in order to carry out water allocation planning in complex deficit agricultural water resources systems based on an economic efficiency criterion. Various options (18 scenarios) of conjunctive use water resources along with current and proposed cropping patterns have been explored by Koohdasht Irrigation District (KID). Findings indicate the importance of the conjunctive water management modeling, which can be easily implemented and would enhance the overall benefits from cropping activities in the study area.

So, the aim of the present paper and the previuos paper are completely different. The methodologies are also very different. The objective of the present study is to develop a comprehensive multi-criteria model for selecting adequate cropping pattern in an irrigation district under water scarcity condition. Here, the main objective can be considered assessing a new approach for cropping pattern in an irrigation command area. I am not in following up the improvement of the previous work. I am really looking for assessing the multi-criteria model developed here. However, I have some results from my previous published paper that obtains the

optimized cropping pattern in the area but its methodology and the effective factors is different with the present work. So, I just want to verify my new results, but I can't say anything on comparing which one is better. I accepted the previous one as the basic one and correct results. In other word, I can't say which of non-linear optimization model and multi-criteria model are better, or improving is how? I just developed a new approach, which its results has a perfect agreement with the basic (correct) one.

20. FINALLY, ENGLISH GRAMMAR MUST BE IMPROVED SIGNIFICANTLY. SOME PARTS OF THE MANUSCRIPT ARE UNINTELLIGIBLE AND WILL REQUIRE A FULL MODIFICATION AND IMPROVEMENT.

I accurately checked English of the paper again and did some needed corrections. Also, one of my English native speaker colleagues checked the paper. All his comments were considered on the revised paper. I am sure that the paper was considerably improved and can be published in *Spanish Journal of Agricultural Research*.

21. PAGE 6. PARAGRAPH 2. WHAT IS THE REASON TO DESCRIBE 18 SCENARIOS WHEN UNIQUELY 2 ARE ANALYZED? IT IS RECOMMENDED REMOVING THOSE SCENARIOS THAT ARE NOT USED IN THE MANUSCRIPT, AND FIGURE 1 COULD BE ELIMINATED.

According to the reviewer's comment, only the scenarios E_5 and P_2 were considered and analyzed in the paper. The rest of scenarios presented in material and methods were deleted. Also, Figure 1 was modified and some part of material and methods, and results and discussion were accurately revised.

22. PAGE 6. PARAGRAPH 3. WHAT IS THE MEANING OF "A MINING ALLOWANCE OF GROUNDWATER FACTOR OF 0.83, ARE CONSIDERED 39.270 AND 93.823 MCM"? PLEASE EXPLAIN BETTER AND DEFINE THE CONCEPTS.

The mining allowance of groundwater resource factor ($=1$ when no mining is allowed) can be determined as the ratio of the groundwater allocation to the command area to the annual recharge of groundwater resources. This definition has been already used by Montazar (2011), Montazar et al. (2010), and Khare et al. (2006). The explanation was increased to the text.

The sentence means that the programmable surface water and groundwater value in the agricultural sector are considered 39.270 and 93.823 millions of cubic meter (MCM), respectively (with a mining allowance of groundwater resource factor of 0.83). The sentence was revised and the mentioned paragraph was completed as clearer.

23. PAGE 10. PARAGRAPH 2. WHAT IS THE MEANING OF "THE OVERALL MEAN CONSISTENCY RATIO OF THE COMPARISONS WAS 0.08%"? PLEASE EXPLAIN BETTER AND DEFINE THE CONCEPTS.

In the AHP, once all the relative weights have been calculated, a composite weight for each decision choice is determined by aggregating the weights over the hierarchy for each decision choice. One advantage of AHP is its capacity for controlling decision consistency that is always amenable to computation and evaluation. For each comparison matrix, the quotient of consistency index to inconsistency index of a stochastic matrix of the same vector would be taken as the criterion to judge the decision inconsistency; this value is defined as the consistency ratio. In cases where this value is less than 0.1, the system has an acceptable consistency; if otherwise, then judgments must be repeated. In the present study, evaluation of decision consistency was performed for each of the matrices developed. This explanation was presented in the last paragraph of part of *weighting process of the criteria and alternatives*.

In this study, the overall mean consistency ratio of the comparisons was 0.08%, which is acceptable for surveys administered to the general public. In any AHP study, this index must be determined and controlled.

24. PAGE 10. PARAGRAPH 2. A DETAILED DESCRIPTION OF THE SURVEYS IS REQUIRED.

Please see the answer to comments 15 and 16. It was done.

25. INCLUDE NUMBER OF LINES IN ALL THE DOCUMENT.

The number of lines in the all document was included.

26. THE WORD "ORCHARD" IS NOT CORRECT WHEN YOU DEFINE THE SIZE OF THE PARCEL CONSIDERE IN EACH SCENARIO BECAUSE IN ENGLISH "ORCHARD" IS USED TO FRUIT TREES PARCEL. THEREFORE YOU SHOULD CHANGE WITH PARCEL (FOR INSTANCE).

In the revised paper, only the scenarios E_5 and P_2 were considered and analyzed. The rest of scenarios presented in material and methods were deleted. Therefore, the word of Orchard or changing it to another word was not necessary, because the word was basically deleted.

I look forward to your positive response soon. Thanking you in advance for your kind attention. Please let me know if any additional correction is needed.

Sincerely yours,

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