

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_112169
Title of the Manuscript:	CLIMATIC SHIFTS AND AGRICULTURAL STRATEGIES: A THOROUGH REVIEW ON THE DYNAMICS OF CLIMATE CHANGE IMPACT ON FOOD SECURITY AND CROP PRODUCTIVITY
Type of the Article	

Review Form 1.7

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>It is a good source of information on linkages between climate change and food security</p> <p>May be the word DYNAMICS can be deleted</p> <p>It is comprehensive within given topics</p> <p>Appropriate to some degree</p> <p>It is scientifically correct.</p> <p>References could be extended for more coverage areas at least geographically</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>I think the language is good except some expression using the word like TERRIBLE in relation with impact</p>	
<p>Optional/General comments</p>	<p>The author has conducted a comprehensive review on studies related to linkages between modern climate change and agriculture focusing on global food security and crop productivity. But coverage area was limited by sub-Saharan Africa and South Asia, with partially mention about Nordic countries like Norway. Since those countries involved in the analysis were mostly from warm or tropical areas, where survival and growth thresholds of external stresses on particular food and non-food plants probably are not workable or applicable for middle latitude countries of Eurasia and North America, where deep continental and cold climate is dominating and cold and combined stresses are less important than hot ones. Despite that limitations the author could accurately highlight some key issues, relevant to each survey topics, as following:</p> <ul style="list-style-type: none"> Increasing crop intensification due to population growth and dietary changes while native vegetation is affecting by degradation . CO₂ fertilization might be outweighed by nutrient restrictions, pollutants, and other 	

Review Form 1.7

	<p>interactions with climatic conditions.</p> <ul style="list-style-type: none">• necessities for irrigation water supplies through improved system management, reduced surface drainage, drip irrigation, water storage facilities, wastewater utilization, and prudent groundwater management, since challenges for rainfed agriculture are increasing due to unpredictable rainfall patterns and other emerging issues, like maybe land tenure etc.• Importance of process-based crop growth models along with general circulation models (GCMs) to assess the impact of climate change on the process of food production.• crop simulation models can be a good instrument for evaluation of the possible effects <p>of climate change on crop productivity. and risk management in agriculture.</p> <ul style="list-style-type: none">• a possible key role of the land surface changes on local and regional climate even greater than rising greenhouse gas emissions. <p>In respect of widely recognised impact of drought, extreme temperature and precipitation, leading to excessive floods were described in more details with some references on concrete disaster events occurred in some areas, with adequate comments.</p> <p>The coverage of survey was extended including in it an issue of biodiversity , noting that some biological species have a better survival capacity for adjusting to new ecosystems , but a lack of access to microclimates and insufficient connection between habitats might lead , for instance, to increase of vulnerability to extreme heatwave episodes.</p> <p>Essential part of this review was Adaptive strategies, in which have been emphasised that the agriculture sector is highly susceptible to climate change, because of significant influences, and at the time having high adverse impacts. In this regard, it is important to have knowledge relevant the primary and secondary effects of adaptation to global environmental change.</p> <p>The review is concluded by the conclusion, but this part could be more narrowed down highlighting more key points in the survey.</p> <p>General observation is: it was done very informative review, with certain analysis within outlined topics and can be published as a good source of information of</p>	
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Review Form 1.7

	relevant category.	
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PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Batjargal Zamba
Department, University & Country	Information and Research Institute on Meteorology, Mongolia