

Comments Sheet 【FR1】

February 26, 2015

Title of the Project	Societal Adaptation to Climate Change : Integrating Palaeoclimatological Data with Historical and Archaeological Evidences		
Research Term	FR1	Project Leader	NAKATSUKA Takeshi
<p>General advice and comments of the PEC:</p> <p>The members of the PEC were generally quite satisfied with the progress over the past year, especially in accumulating large amounts of data, including from isotope analysis, tree rings, archeological finds and now also from historical documents. The welcome inclusion of English-speaking scholars was also noted with approval. Further internationalization is still needed, including the incorporation of insights from the international literature about the interface of climate and recorded history. Widening the scope of the research to include the history of East Asia might also be considered.</p> <p>The project is broadly organized into a strand of reconstructing past climate and a strand of relating historical events to the documented climate variability. How will the divide between these two strands be bridged? A methodological strategy for integration needs to be further articulated. What shared outcomes can the paleoclimatologists and historians expect to result from the project? The presentation often mentions “apparent correlations,” but it was suggested that it should be possible to move from correlation to a probabilistic relationship. In order to establish a causal relationship, a conceptual model needs to be developed that can derive hypotheses to be tested in statistical modeling.</p> <p>The project has made a good start in documenting and analyzing technological change as a means of adaptation to climate variability, but, as the analysis deepens, it should also be considered that technological change is to some degree independent from climate variation. Accounting for other factors, including volcanic activity, is also recommended.</p> <p>Finally, the ultimate challenge of the project is how to frame the relevance of the research of the past for the present and future. Can lessons be learned from the research that can help the world prepare for the future? If so, who would need to be targeted in disseminating results?</p>			

Reply

We appreciate all valuable comments from the PEC. We will respond to all PEC comments positively during FR Year 2 as follows.

1) Enhancement of international interactions.

Members of the RIHN project office, including humanities experts, are now reading IHOPE relevant papers routinely and preparing papers for submission to international conferences and/or high-rank international journals. The project research area will be partly enlarged to East Asia so that macro-level historical societal reactions to climate change in Asia can be compared between Japan and China, two main Asian countries with completely different geopolitical situations.

2) Linkage between paleoclimatology and study on climate-society relationship

We will launch a new research group, consisting of members in the RIHN project office and some early modern economists, to promote statistical analyses on societal responses against climate variations using conceptual models on climate-society cause-and-effect relationships. Apparent coincidence between famine, warfare and climate variation are now being confirmed statistically using huge numbers of medieval and early modern documentary records on climate disasters in Japan.

3) Other factors than climate change to explain societal innovations.

Because most of historians and archaeologists in our project have had their own ideas on causes of the innovations, we believe that we cannot miss the important other factors than climate to explain the societal innovation.

4) How to utilize project results for the present and future world.

Most of past societies suffered from large multi-decadal climate variations and often failed to adapt to them, but they sometimes overcome the difficulties. Because the “multi-decadal curse” is distributed universally among many environmental problems, we think that historical wisdoms to overcome the multi-decadal variability can be shared by present and future people who must adapt to world with changing environments. So, the target people of the project results are all people with political will in the world.