THE EDUCATION UNIVERSITY OF HONG KONG
FACULTY OF LIBERAL ARTS AND SOCIAL SCIENCES

Research Output/Impact Prize for the Dean’s Research Fund 2016-17

Brief Introduction of Awardee’s
Research Publication/Study and Future Research Development

Awardee (Dept): Dr. Pei Qing, Assistant Professor (SSC)
Publication Title: Temperature and precipitation effects on agrarian economy in late imperial China

A. Briefly introduce your research publication/study for which you have received the prize.

The article has quantitatively investigated the agrarian economy in historical China under climate change which has become a major concern nowadays because of its capacity to trigger socioeconomic disasters. The findings have been reported in media so far. The article at least has shown its implications in both academic and practical value.

In terms of theoretical implication, the long-term relationship between climate change and the agrarian economy of pre-industrial Europe was first investigated by the author with a statistical perspective. However, only a few studies have assessed the vulnerabilities of the agrarian economy under climate change in late imperial China, particularly in a quantitative manner. By filling the mentioned gaps, the article has academic significance in the aspects of knowledge, theory and methodology.

For the practical use, evaluating economic vulnerability is a key step in addressing climate change, the level of which has never been seen during the past millennium. This situation highlights the need to investigate relevant past experience in human societies as a reference to the current era. Although historical climate change mainly refers to cooling or drought, both the current climate warming and past climatic impacts could distort the agrarian economy by lessening the agricultural harvest. Thus, the article has implied the practical significance at both national and global scales.

Based on its contribution to the academia and lay public, the article has been reported and covered by the media interview, which has shown its impacts and significance. The article has set a firm basis for the further research on climate change and its socio-economic impacts in the future.

B. How you used/will use your prize and perhaps its usefulness to your research development?

First, I deeply appreciate the support of the prize to me to further polish my research in the future. To polish my current research, I plan to use this esteemed grant in three aspects: equipment, field trip and international communication.
In terms of equipment, my research is conducted with a quantitative basis. Therefore, I will plan to buy one high-performance computer and other related equipment in order to perform some more complicated calculation like wavelet analysis and Fourier transformation. By using more advanced methods in statistics and mathematics, it will be able to have some new findings. I am the one who has applied quantitative approaches into the field of historical geography and environmental humanities.

The data is fundamentally important to the quantitative analysis. So far, the records in the field of historical geography and environmental humanities in China have scattered across the nation. Meanwhile, the digitized work of these historical records just begins in China at present. It will be necessary to collect the records in person by myself through the field trip. Then, I will quantify those collected historical records into data format by using the high-performance computer. Thus, field trip will be necessary for my future research.

Last but not least, my research aims to have international impacts in academia and lay public. So far, I have been appointed as the Fellow in Cambridge University, University of Zurich and Ludwig Maximilian University of Munich. Furthermore, I have already built the cooperation with Tsinghua University, Remin University of China, Fudan University and so on. There may be some potential opportunities to invite those worldwide influential scholars to give lectures in our university. Therefore, I reserve part of grant to invite them.

C. Expected research outcomes/outputs/impacts arising from this prize.

First, the project will collect up-to-date and precise records at specific historical periods. These datasets could be used and referred by scholars and lay public to explore more on the socio-economic impacts of climate change.

Second, I will also submit the socio-economic data series to International Institute of Social History and Allen-Unger Global Commodity Prices Database to improve the current collection on past Chinese data. These two databases are online platforms that allow researchers to access and download the archived data for their own studies, which will enlarge the impacts of my research in academia.

Third, I aim to publish at least one paper in peer-reviewed journals as the project output. If possible, I also hope to have a book contract under the support of this project.