## Address by H. I. H. Prince Akishino The IGU Kyoto Regional Conference August 5, 2013 (Monday)

Professor Vladimir Kolossov, The President of the International Geographical Union, Distinguished guests and participants, Ladies and gentlemen,

It is my great pleasure to be here with you at the opening of the International Geographical Union Kyoto Regional Conference, with participants from around 70 countries and regions assembled here in Kyoto today.

I consider it especially meaningful that various presentations and discussions concerning geography at this conference will address the main theme of "Traditional Wisdom and Modern Knowledge for the Earth's Future". Geography is a comprehensive discipline, covering the entire earth, and ranging from the natural sciences to the human and social sciences. And it covers a large number of subjects related to the



His Imperial Highness Prince Akishino

earth, from our daily activities, to global environmental issues such as population, energy and disasters. All of these subjects are crucial long-term issues for sustaining our livelihoods. Therefore, initiatives based on broad viewpoints are needed, and expectations of, and demands on, geographers are predicted to increase steadily in the future.

From here, I would like to talk about my own involvement with geography, and about my research interests relevant to geography. My first encounter with geography came when I happened to join the Geographic Society at my high school. At this Society, I found opportunities to come into touch with diverse cultures, such as traditional local industries and performing arts, by travelling to various parts of Japan.

After entering university, I established a similar society with my friends and travelled to many parts of Japan and also to Thailand, Malaysia, and Singapore. Among my travel destinations, the experience of visiting Thailand inspired my research interests into freshwater fishes of Southeast Asia, and led to visits to the Maekhong and Chaophrya rivers in the following years, during which I came to realize the importance of field research. Furthermore, these visits enabled a deeper understanding not only of the fish, but also the diversity of fishing gear and fishing methods in the northern, northeastern, and central parts of Thailand. My present research interests have shifted from freshwater fish to domestic animals such as livestock. In particular, I am working to try to elucidate the origin and domestication process of chickens by understanding the multiple relationships between chickens and humans. These researches cover several countries, including a bilateral joint research project between Japan and Thailand, and I feel that comparisons from a broader regional perspective are required.

Now, I will briefly touch upon the importance of interdisciplinary research from my own experience.

As I mentioned earlier, I understand geography to be an interdisciplinary subject covering both the natural sciences and the human and social sciences. Interdisciplinarity is also crucial to my research interests into livestock, especially domestication studies. As you all know, livestock were created from their wild ancestors by humans for some purpose. In this regard, livestock are not simply living organisms but are also cultural creatures that can be regarded as living cultural assets.

Basically my interests cover livestock in general, including poultry, and in particular the domestication and breeding of varieties of chickens, because I am interested in why humans created a wide range of varieties of chickens with different forms and coloration.

It is considered that there are 4 ancestral species of junglefowls in existence around the world, and I have been interested in which junglefowl species was the progenitor of chickens. To elucidate this question, I once compared 4 junglefowls and various chicken breeds by extracting mitochondrial DNA to determine their base sequences. The findings of this analysis implied that the maternal ancestor of present chickens was one of the 4 junglefowl species, the Red Junglefowl, *Gallus gallus*, and moreover that, among the subspecies of Red Junglefowl, the domestic chicken was derived from subspecies inhabiting continental Southeast Asian areas such as Thailand and its adjacent areas. These findings are summarized in my doctoral dissertation. However, the results of my research are from almost 20 years ago, and various other findings have subsequently been published.

Besides research in molecular biology, I have conducted field research in China's Yunnan province, Laos, Vietnam, Thailand and Indonesia. In my experience of traveling these areas, I came to recognize that livestock, including chickens, are creatures created by humans to suit the traditional customs and preferences of their respective local communities. In these communities regional types observed may derive from prototype chickens used to breed different varieties. And it is essential to consider human preferences to understand why the resultant variations in form and coloration were created.

So which research fields need to collaborate to gain more insight into the living organisms created by humans? From what I have mentioned so far, at least ethnology, folklore, and biology are essential fields. Other fields worthy of consideration would include archaeology, history, linguistics, etc. Also in areas inhabited by different ethnic groups, if noticeable variations are found in the same area, they may arise from such factors as varying preferences and customs for rituals. In researching these regional characteristics of cultures and the factors influencing them, geographic barriers should be considered first. Therefore, we would have to consider that the base for conducting this kind of research is in fact the subject of geography.

From this example of my research interests, which happen to be in domestication studies, a more comprehensive understanding cannot be reached unless several research fields and experts are engaged. Each field independently will undoubtedly advance beyond their present achievements into the future. However, by looking back on my own experience, I expect

collaboration in interdisciplinary research, that cuts across disciplinary boundaries by sharing different perspectives, to become increasingly important.

If you are interested in how my research interests of exploring domestication and the breeding of varieties were approached from interdisciplinary viewpoints including biology, the humanities, and regional and spatial aspects of geography, please kindly refer to the publication from The Siam Society entitled "Chickens and Humans in Thailand: Their Multiple Relationships and Domestication", which Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand and I supervised as Honorary Editors.

I suppose that what I have mentioned is relevant to the main theme of this Regional Conference, "Traditional Wisdom and Modern Knowledge for the Earth's Future".

In order to understand various issues regarding our global environment, the first point is that we need to respect field research, for example the insights, traditional knowledge and wisdom from informants in the field, and in doing so, we need to note cultural differences among cultural areas, which may not necessarily follow national boundaries.

Another point that I wish to reiterate is that various global environmental issues cannot be solved from narrow viewpoints. Though it is important to study a single discipline in depth, this alone quite often does not give the wide perspective needed to identify issues. I believe this consideration is encouraging mutual exchange among related areas of expertise to deepen their respective fields through interdisciplinary collaboration. This sort of collaborative research can be regarded as a pointer to the future of geography as an integrated discipline. And I also hope that it will greatly contribute to the further development of geographic studies in the future.

In closing my address, I wish that this conference here in Kyoto will be fruitful, meaningful and enjoyable for all participants.

Thank you for your kind attention.

The above is the full text of the congratulatory address given at the opening ceremony of the IGU Kyoto Regional Conference held in the morning of August 5, 2013, at the Kyoto International Conference Center, Kyoto, Japan.

Yoshitaka Ishikawa

Chair, Organizing Committee, IGU Kyoto Regional Conference