

## Selection Evaluation Comments

\*This evaluation takes place in the transition from Feasibility Study to Full Research, i.e. Selection of Full Research project.

FS Title	Towards Sustainable Nitrogen Use Connecting Human Society and Nature
Proposed FR Title	Towards Sustainable Nitrogen Use Connecting Human Society and Nature
Leader of the Proposed FR (Principal Investigator of FS)	HAYASHI Kentaro
Proposed Project Period	5 years Full Research
Affiliated Program	Research Program 3 : Designing Lifeworlds of Sustainability and Wellbeing

### **General advice and comments of the EREC:**

The nitrogen cycle (anthropogenic nitrogen dispersal) was well-received as a global challenge of possibly equal importance to the carbon issue -- a theme that is not yet widely understood nor accorded the public and policy attention it deserves. There are still many scientific questions to be answered, while there is ample potential for engaging with real-world practice and policy. It was noticed that the project is very ambitious in its scope, but the focus on food and agriculture within the wider nitrogen theme helps to delimit the scope of the project, links the nitrogen cycle as a global macro issue with daily life, and provides the potential to build on accumulated RIHN research findings on this topic. The additional sub-topic of ammonia fuel was also viewed as an important emerging challenge for the short and mid-term that potentially might aggravate the existing problems relating to the nitrogen cycle.

The multidisciplinary team, organized around four work packages, is well-connected to national and international research and policy platforms, which makes it well-placed to address the nitrogen issue on a number of dimensions.

The transdisciplinary ambitions of the project still need to be worked out in order to clarify the levels and mechanisms for impact of the research. The Committee noted with approval the proposed fieldwork in a number of sites in Japan and the adoption of Future Design as one way to structure some of the engagement with society. At the same time, several members suggested that, compared with the solid base in natural science, the transdisciplinary aspect is not yet mature. Further development would be valuable not only in regard to the transdisciplinary framing of research with stakeholders, but also using a more interactive approach to engagement of citizens and policy makers. The EREC discussion suggested that this project has the potential to develop a new type of transdisciplinary research at RIHN: an approach that focuses on engaging with national policy processes and with international research-policy platforms. This would provide a wider framework in which the local visioning

and planning processes and case studies such as Tokyo Bay become inputs in a process of engagement with policy stakeholders. As part of this, the rationale for the choice of the selected field sites and the modes of engagement there should be further developed towards this larger policy goal.