

## PRESS RELEASE

*Tsukuba [5 December 2022]*

### **Using the Nexus Approach to Identify Systematic Solutions for Sustainable Development**

*In a new review, a researcher examines the evolution of the nexus approach and how it can help achieve global sustainability goals*

**The nexus approach offers an integrated method for addressing sustainable development challenges in a structured, multi-faceted way. The popularization of this approach for sustainable development is relatively recent. A systematic review by a researcher from the Forestry and Forest Products Research Institute, Japan, revealed an increase in the complexity and diversity of nexuses over time, which is advantageous for achieving the Sustainable Development Goals.**

The United Nations Sustainable Development Goals, adopted in 2015, tackle a wide array of contemporary issues such as food, water, and energy insecurity, biodiversity loss, climate change, and rapid and spontaneous urbanization. Achieving these goals requires a strategy aimed towards overall progress, rather than improvement in isolated areas.

The nexus approach is a method for dealing with sustainable development challenges in an integrated manner considering multiple variables at once. The word “nexus” is conventionally understood to mean “link” or “connection”, and the aptly named approach involves the assessment of several interconnected components. Components can be based on resource sectors, issues, or a combination of both. The interactions between these components can be studied in a structured manner, where progress on one front might require a compromise on another (trade-off), or where two components mutually benefit from one another (synergy). Originally emerging in the early 1980s, the nexus approach has since evolved to become more complex (more components) and diverse (more distinct nexuses) and has recently garnered interest for its integrated approach to tackling global sustainability challenges.

In a recent review of the complexity and diversity of nexuses published in [\*Science of the Total Environment\*](#), Dr. Ronald C. Estoque, a Senior Researcher from the Forestry and Forest Products Research Institute, Japan, explains how the trends of development in the nexus approach can help achieve the Sustainable Development Goals. The article was made available online on 8 September 2022 and will be published in Volume 854 of the journal on 1 January 2023.

*“Examining how the complexity and diversity of nexuses have progressed over the years, especially in recent years, might provide some insights into the future direction of the nexus approach and whether such a direction is consistent with or geared towards helping to achieve global sustainability.”* says Dr. Estoque.

Through a systematic review of over 300 publications, Dr. Estoque found that nexuses have become more complex and diverse over time. This implies that a particular nexus now deals with many more components than included earlier. In the context of sustainability, this is advantageous, as it allows for a more fine-tuned analysis of real-world situations. Increased diversity also means that the components in different nexuses now cover a wider variety of resource sectors and issues.

While the nexus approach was introduced in the early 1980s, tracing its history revealed that it was popularized in the sustainable development context much later, in recent years. The trends in the development of this approach since then have only made it more suitable for application towards meeting the Sustainable Development Goals. It is expected that, with time, several different issues and resource sectors will be linked as components to the existing nexuses, allowing better planning and management.

Currently, the nexus approach offers a platform for systems integration, with careful consideration of the interactions between different components; a platform for collaboration between scientists, policy makers, and other stakeholders; and an explorative method for prospective evaluation of potential future impacts of an intervention.

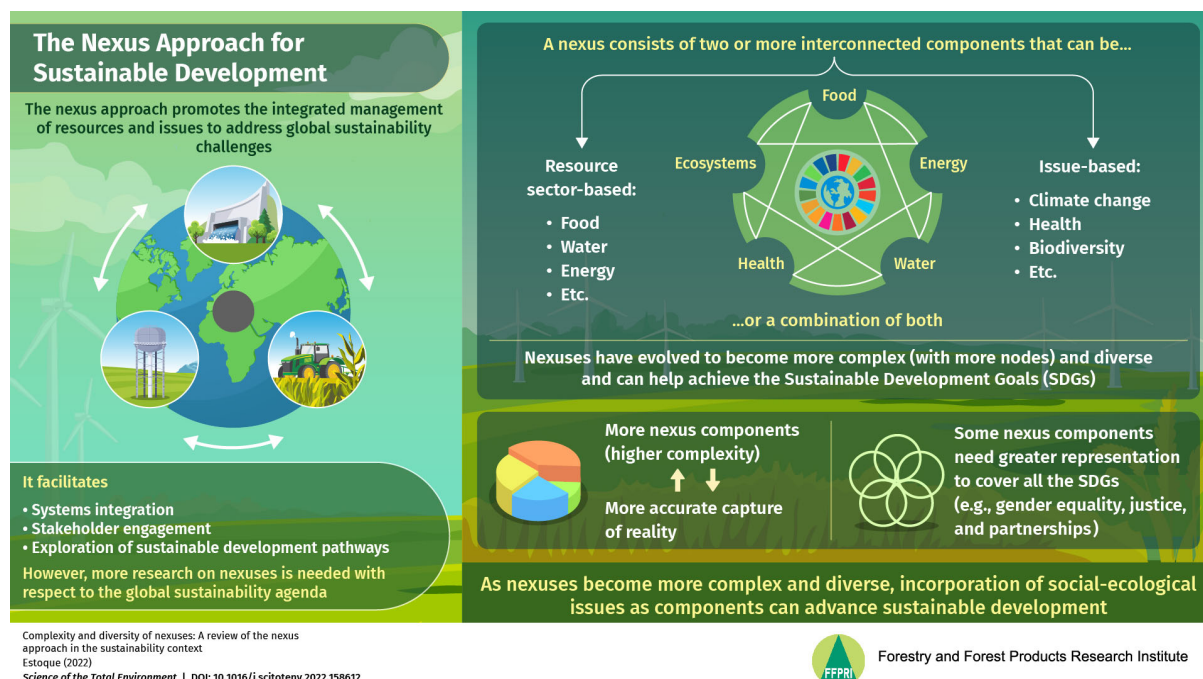
Although the nexus approach is promising, exactly which components should be included while planning for sustainable development policies remains a big question. In Dr. Estoque's own words: *"Determination of the key nexus components for, and in the context of, the global sustainability agenda is an important task, although it is certainly not an easy nor a straightforward one."*

## Reference

Title of original paper:	Complexity and diversity of nexuses: A review of the nexus approach in the sustainability context
Journal:	<i>Science of the Total Environment</i>
DOI:	10.1016/j.scitotenv.2022.158612

## Additional information for EurekaAlert

Latest Article Publication Date:	1 January 2023
Method of Research:	Systematic Review
Subject of Research:	Not Applicable
Conflicts of Interest Statement:	The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.



**Title:** The nexus approach addresses sustainable development challenges in an integrated manner

**Caption:** The nexus approach is an integrated method that can help address sustainable development issues by considering multiple variables at once. In a new review, a researcher examines the evolution of the nexus approach and how it can help achieve global sustainability goals.

**Credit:** Ronald C. Estoque from the Forestry and Forest Products Research Institute, Japan

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### About Forestry and Forest Products Research Institute, Japan

Inaugurated as a unit for forest experiments in Tokyo in 1905, the Forestry and Forest Products Research Institute (FFPRI) was largely reorganized in 1988, when it received its current name. During its history of over 110 years, the FFPRI has been conducting interdisciplinary research on forests, forestry, the timber industry, and tree breeding with an agenda based around sustainable development goals. The FFPRI is currently looking to collaborate with more diverse stakeholders, such as international organizations, government agencies, and industry and academic leaders, to conduct much needed forest-related research and make sure we preserve these renewable resources.

Website: <https://www.ffpri.affrc.go.jp/ffpri/en/index.html>

### About Dr. Ronald C. Estoque from Forestry and Forest Products Research Institute, Japan

Dr. Ronald C. Estoque is a Senior Researcher at the Center for Biodiversity and Climate Change, Forestry and Forest Products Research Institute (FFPRI), Japan. His research interests include forest cover monitoring, social-ecological interactions and sustainable development, climate change vulnerability, risk and adaptation, and various techniques employed in these fields of study, including remote sensing and GIS. He has more than 50 peer-reviewed article publications to his credit in several journals of repute.

**Funding information**

This study was supported by the Japan Society for the Promotion of Science (JSPS) through its Grants-in-Aid for Scientific Research (KAKENHI) Program (20K13262 and 22K01038, Principal Investigator: Ronald C. Estoque)

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