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CALL: RURAL RENAISSANCE –
FOSTERING INNOVATION AND
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TOPIC: RUR-13-2017 BUILDING A
FUTURE SCIENCE AND EDUCATION
SYSTEM FIT TO DELIVER TO
PRACTICE

GRANT AGREEMENT: NO 771738

DURATION: MAY 2018 TO APRIL
2022

COORDINATOR:

Dr Martin Melin, Swedish University
of Agricultural Sciences, Alnarp,
Sweden

WEBSITE:

<https://www.nextfood-project.eu/>



Nextfood - Educating the next generation of professionals in the agrifood system

Practice Abstract #32: Integrating systems thinking into farmer courses

Authors: Ritam Bhattacharya, Anshuman Das, Parthiba Basu,
University of Calcutta/Welthungerhilfe

The target students, in the 3-month certificate course in Agroecology at the University of Calcutta, are farmer trainers and extension workers. The backbone of the course is to understand the social, economical and ecological challenges faced by small holder farmers and looking for options to address those challenges.

Facing the difficultly of a reductionist approach to resolve the various systemic challenges of food and farm systems, in the design of the course, we have tried to create a systems model for the concept of agroecology among farmers thereby integrating systems thinking into the course. We are exploring various key conceptual successions to explain the root of agroecology, clarifying the few conceptual areas of various spectrum of the agrifood system and highlighting the limitations of conventional agricultural farming and food system. The students are exposed to various accumulated and then synthesized aspects of agroecology. Finally, systems thinking is applied to develop a more comprehensive model of farm systems to promote the understanding and application of agroecology.

Main practical recommendations for integrating systems thinking into farmer courses:

- The agri food system has a nested hierarchy. Each part of the system has on its own but when it meets with others it becomes part of the system.
- Each system is interconnected to form a bigger suprasystem.
- The environmental, social, and economic systems are closely linked, interacting and sometimes overlapping.
- Integration of environmental, social and economic systems are important to improve the quality of life.



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Practice Abstract #32: Integrar el pensamiento sistémico en los cursos para agricultores/as

Autores: Ritam Bhattacharya, Anshuman Das, Parthiba Basu, University of Calcutta/Welthungerhilfe

El público objetivo (estudiantes), en el curso certificado de 3 meses en Agroecología en la Universidad de Calcuta, son capacitadores agrícolas y trabajadores de extensión. La columna vertebral del curso es comprender los desafíos sociales, económicos y ecológicos que enfrentan los pequeños agricultores y buscar opciones para abordar esos desafíos.

Enfrentando la dificultad de un enfoque reduccionista para resolver los diversos desafíos sistémicos de los sistemas alimentarios y agrícolas, en el diseño del curso, hemos intentado crear un modelo de sistemas para el concepto de agroecología entre los agricultores, integrando así el pensamiento sistémico en el curso. Estamos explorando varias sucesiones conceptuales clave para explicar la raíz de la agroecología, aclarando las pocas áreas conceptuales de varios espectros del sistema agroalimentario y destacando las limitaciones del sistema agrícola y alimentario convencional. Los estudiantes están expuestos a varios aspectos acumulados y luego sintetizados de la agroecología. Finalmente, el pensamiento sistémico se aplica para desarrollar un modelo más integral de sistemas agrícolas para promover la comprensión y aplicación de la agroecología.

Principales recomendaciones prácticas para integrar el pensamiento sistémico en los cursos para agricultores:

- El sistema agroalimentario tiene una jerarquía anidada. Cada parte del sistema tiene lo suyo, pero cuando se encuentra con otras se convierte en parte del sistema.
- Cada sistema está interconectado para formar un suprasistema más grande.
- Los sistemas ambientales, sociales y económicos están estrechamente vinculados, interactuando y, en ocasiones, superpuestos.

La integración de los sistemas ambientales, sociales y económicos es importante para mejorar la calidad de vida.