NEXTFOOD

Educating the next generation of professionals in the agrifood system

Case name and name of contact person/leader

Case name : Improving sustainability in farming and food systems by bringing in agroecological approach through action learning. – University of Kerala, India.

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Brief description of the case

Main stakeholders involved: Students, teachers, farmers, policy makers, extension workers Multi-actor approach in case: where students from diverse disciplines come together and accrue skills from experience to co-create knowledge along with farmers and other stake holders to benefit the society as a whole to meet the challenges of sustainable agriculture

Expected outcome :There is a growing realization of the need for a relook into the educational system followed in India and this realization to get ramified into policy changes needs successful educational prototypes which can fix the systemic faults that has crept into the system and make education more reachable, learner centric, flexible and dynamic to meet society's ever changing needs. This alteration has to begin at the root of the society and ostensibly a change in system of learning from conventional, monoculture style to experiential learning has the power to kindle this transformation where the student is trained to be agent of change. Course on Agroecology through Action Learning, aiming to be a successful educational prototype is a maiden effort towards participatory education in the state of Kerala, where students from diverse disciplines come together and develop skills from participatory experience to co create knowledge along with farmers and other stake holders to benefit the society as a whole to meet the challenges of sustainable agriculture. Within the NEXTFOOD action learning cycle, the case will reveal whether the adopted pedagogy promotes the competency to address the complexity of sustainable food and farming system. This case, based on action- and practice-oriented learning, will offer a new approach to the outreach of sustainability knowledge in India. The pilot course will contribute towards creation and documentation of skills and competences needed for transition to more sustainable agriculture and will also identify the gaps and needs in the current educational system and through that process exemplify the hindering and supporting forces for such transformation. The course to be piloted under the case is a three one-month certificate course at graduate level.

How will the case contribute to achievement of the NEXTFOOD objectives by action research as the main strategy?

Sustainable farming and food systems need a departure from the current skills and capabilities possessed by stakeholders in order to overcome the disparity between knowledge and action persisting in the field. Sustainability in itself is a multidimensional concept and encompass social, economic and environmental facets and hence a pre requisite towards transition to more sustainable agriculture system is the development of human resources having holistic perception and multidimensional and multidisciplinary understanding. Skills need to be developed in students and disseminated to those people who are engaged in the sector in order to improve their capacities to innovate; to bring in more sustainable practice; to demand for sustainable policies and to become agents of change to create more sustainable world. With this as the premise, the case of Agroecology course with action oriented learning, through iterative experiments and participatory learning process will act as a platform to harness ideas regarding the skills needed for understanding complex systems and bringing about sustainable changes. An inventory of skills can be developed from the process of continuous joint action happening on field between different stakeholders and through a recapitulating process inputs can be provided towards the deliverables in WP1 of the NEXTFOOD project.

The course will have new curricula and training methods to guide human resources towards the achievement of sustainable farming and food systems. Conventional theory centric learning with lecture as the main pedagogy have inherent limitation in dealing with complex real situation and a curricula which starts with phenomenology and understanding complex reality in the social setting with theory playing a supporting role will be tested in the course. There will be a judicious blend of empirical and theoretical practices in the course and experimenting a curriculum, reflecting it and evaluating its effectiveness over each cycle, a final curriculum will be evolved. The transformation happening to students throughout the course will be evaluated and discussed, based on which effective training methods will be formalized. Research will be done on quantitative and qualitative data generated during the case development process and analysed to contribute towards deliverables in the WP2 and WP3 of NEXTFOOD specifically, research protocols, master manuals, annual case development report, review reports of educational approaches, toolbox for teaching practitioners, reports on educational strategy and accreditation framework.

Support from local governments, educational institutions and non-governmental institutions such as farmer's cooperatives and training centres will be maintained to popularize the methodology and to ensure a good social networking which will in turn help to achieve sustainability goals at the grass root. This can help in brining lifelong learning a reality and can improve social capital and empowerment of all stake holders. These supporting institutions can also help in co-creation and co-evaluation of knowledge and in dissemination of created knowledge and in innovation and finally through successive improvisation, the course can be showcased as an educational

prototype to bring sustainable changes in farming and food system and can thus be implemented into the educational policy arena.

How will the case study provide evidence to answer the NEXTFOOD research questions?

Developing countries currently face the challenge of growing demand for food and biofuels for its huge population, and the policy think-tanks / academia are unable to find a plausible solution to this pressing problem which will aggravate in the future days due to climate change. The inability to fix up the problem is particularly because of the compartmentalization happening within government and in academia in the name of bureaucratization and specialization when it comes to the departments /subjects. The need of the hour is interdisciplinary initiatives from academia and creation of common platforms where different stakeholders such as government officials, technicians, farmers, students and researchers can engage in dialogue and contribute to reach common innovative and sustainable solutions. This requires cultivation of skills that can suit the dynamic nature of sustainability concerns. The course on Agroecology will be experimented against this background through participatory and action learning strategies with a view to develop competences required to foster more sustainable agrifood system. Since the course happens in an iterative cycle, the possibility of continuous up gradation exists; assessing the current situation and visioning the future desired one.

The course based on action oriented learning strategy can act as a first step a) to familiarize action- oriented learning methods in education and training in farming and food systems b) to develop human resources with holistic understanding and experimentation of innovative programs in farming and food systems c) to experiment and identify suitable prototype for agriculture education and popularize it d) to transform the attitude of society in understanding agriculture through participatory action e) to address the gender, ethnic, religious dimensions of agriculture and its impact on inequalities so as to develop a more equitable agro-eco systems and f) to create space for democratic dialogue among the different stakeholders in the food and farming system and hence will contribute to provide answers to the research question in the NEXFOOD project

However, this transformation will not be a smooth process. The pace of the transformation will be mediated by the comparative strength of hindering and supporting forces. There exists presumptions regarding learning activity which has been imbibed in the inner self of the society as a result of following traditional educational system added to which is the existence of strict regulatory laws which creates unnecessary spatial and time boundaries in process of learning. Through the conduct of course and evaluation of student/teacher feedback and documents prepared by the students, on the one hand, the hindering forces can be identified and ways in which it can be addressed can also be experimented and on the other hand, the supporting forces can be recognised and capitalised.

When do you plan do run the first cycle (starting and ending dates) of the educational activities (courses, seminars etc.)?

Start date of the course : April 18th ,every year

End date of the course : May 17th, every year

What is the planned (expected) number of learners (students, farmers, etc.)?

Nine students –There will be nine students per one month certificate course for three years

What is the level of the course(s)? (BSc, MSc, other)

Masters course

Who will be the teachers/learning facilitators?

Teachers given training by NMBU, in action learning and research and who have participated in the initial days of MSc Agroecology course offered by NMBU

A description of the 'learning arenas':
Where will the activities take place, what will be the processes to enable co-learning between teachers, learners (students, farmers, etc.) and research persons in society (farmers and others)?

Learning arenas will involve not only university territory but also extra university territory involving stakeholder actors, comprising of other departments, universities, farmer cooperatives, local self-governments etc. Class room exercises and discussions along with concrete experience in the field will help in developing competences/skills needed for fostering sustainable agricultural development. Process involved will be based on action learning methodology, which will enable co-learning between teachers, farmers and students. Right blend of subjects, diverse approaches to participatory learning, flexibility and adaptability in curriculum, interdisciplinary background of students, participatory action, visioning of desired future state, devising and implementing action plans and reflecting and improvising in the next cycle can help immensely in co-learning and bringing holistic nature in the analysis of farming and food system.