**Call for lessons and good practices on investments for healthy food systems**

**Template for submissions**

**(Approximately 1000 words in total)**

**Please use this**[**submission form**](http://bit.ly/2nAitb1)**to share your examples and experiences on investments promoting healthy food systems for improved nutrition.  For the necessary background and guidance, please refer to the topic note:** [www.fao.org/fsnforum/activities/open-calls/investments\_healthy\_food\_systems](http://www.fao.org/fsnforum/activities/open-calls/investments_healthy_food_systems)

**You can upload the completed form to the** [**FSN Fourm**](http://bit.ly/2p1dvUw)[www.fao.org/fsnforum](http://www.fao.org/fsnforum) **or send it via email to** [fsn-moderator@fao.org](mailto:fsn-moderator@fao.org)**.**

**Proponent**

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| Dr. Ray-yu Yang, Nutritionist, World Vegetable Center |

**Date/Timeframe and location**

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| Years: 2014-2015  Countries: Bhutan, Burkina Faso, Indonesia, Nepal |

**Main responsible entity**

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| Vegetables Go to School (VGtS) is a multidisciplinary, school-based project developed and overseen by a team of international researchers from The World Vegetable Center, Swiss Tropical and Public Health Institute, Freiburg University, and members from each countries’ Ministries of Agriculture, Education, and Health. It is funded by Swiss Agency for Development and Cooperation |

**Nutrition context**

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| Food security and nutrition are basic human rights and fundamental to a healthy and productive life, yet critical hunger and malnutrition persists in developing countries1. Enhancing children’s education is one of the key investments that can contribute to breaking the vicious cycle of poverty and malnutrition and bring positive social in the next generation. The VGtS project used multi-intervention school garden programs that incorporates agriculture, nutrition and WASH (water, sanitation and hygiene) education, and community outreach to improve community food security and nutrition. |

**Key characteristics of the food system(s) considered**

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| A school garden program is an educational tool used to teach students on agriculture, nutrition and health to equip them with the critical and holistic thinking to face today and future challenges in environmental changes, and food security and nutrition. The school garden program serves as an entry point for children to learn about food systems, as well as an entry point for interactions between students, parents, teachers, and community members.  A school garden can be regarded as a small food system; and a healthy garden can include the production of plant and animal food and be designed to address biodiversity, healthy diets and eco-friendly environments. A healthy garden can produce fruits and vegetables that can be consumed by students and their families through school meals or the distribution to children to bring home to their families. |

**Key characteristics of the investment made**

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| **Pre-intervention:**  Training of Trainers on School Garden Program for four country project teams, and in-country training of teachers on implementation of school garden program and data collection in four countries  **Interventions at schools:**  Implementation of School Garden Program:   * **School garden curriculum** integrating agriculture, nutrition and WASH concepts and practices * **School garden setup and management** for hands-on learning * **School garden demonstration and promotion** events for inter-generational learning, community outreach and encouraging the linkage with other food, nutrition   and health initiatives at schools |

**Key actors and stakeholders involved (including through south-south/triangular exchanges, if any)**

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| The inclusion of project country team members from multiple government ministries (Ministry of Agriculture, Education, and Health) promoted coordination within government and ensures government ownership. South-South Coordination was done by exchanging knowledge and technology through regular team meeting and study tours.  VGtS involves school administrators, teachers, and agriculture extension workers in building school gardens, and cooperates with existing programs already in place. For instance, In Bhutan VGtS partnered with National School Agriculture Programme to enrich the curriculum and activities by incorporating nutrition and WASH principles, and involved local parents. The beneficiaries were primary school children and parents. Although the analysis only targeted children, improving children’s education and diet would also have influences on their parents and household. |

**Key changes (intended and unintended) as a result of the investment/s**

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| The project used randomized control trials (RCT) and measured the program’s nutritional impact on school children in developing countries. The data from school children for two years showed that the program significantly increased students2-5:   * Agriculture, nutrition and WASH knowledge * Fruits and vegetable awareness * Healthy food and snack, and fruits and vegetables preferences * Likelihood to consume vegetables |

**Challenges faced**

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| The challenges VGtS school garden program faced include:   * Lack of resources in developing countries. Ex) WASH practices in Burkina Faso were constrained by lack of WASH facilities and latrines. * Sustainability and success is reliant on financial motivation for agriculture extension workers, school administration, and teachers for continuous monitoring. * Proper fencing is required for preventing wild animals from destroying gardens in Bhutan * Environmental factors such as low water availability in Nepal, Indonesia, and Burkina Faso affected gardens |

**Lessons/Key messages**

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| The success of the VGtS school garden program in improving students’ nutritional behavior and influencing household food security is largely due to multi-ministry participation, government support, international partnerships, comprehensive teaching curriculum and garden demonstrations, and motivated communities.  **Recommendations**  Form the evidence and experiences learnt from the VGtS project, we recommend   1. Investment in a multi-intervention school garden program with (a) school garden, (b) agriculture, nutrition and WASH education and practices, and (c) community outreach in schools with access to water and latrines. 2. Incorporate the school garden program in the national curriculum to ensure program quality and sustainability.   National Government Recommendations:   * **Increase financial and technical support** to implement school garden programs in schools with access to water and latrines, for monitoring and evaluation, training of teachers, teacher incentives, program materials, and promotional activities. * **Collaborate with ministries of agriculture, education and health** in implementing and supervising the program to ensure government ownership and pulling resources from different ministries for the school garden program.   School Garden Program Implementation:   * **Incorporate agriculture, nutrition and WASH education, inter-generational learning and community outreach in school garden programs** to effectively achieve food and nutrition goals. * **Link school garden programs with home and community garden or food production programs** to improve household food security and nutrition. Government support for agricultural extension and training for home gardeners is needed. * **Combine school garden program with a school-feeding program** to more effectively increase students’ intake of nutritious fruits and vegetables and balanced meals. * **Give incentives to school staff** to motivate their participation in the school garden program. Teachers in the school garden program are important resource persons for training other teachers and parents on agriculture, nutrition and WASH. * **Provide quality seeds, stable water sources or water-saving technologies** to ensure school garden operation |

**References**

1. WHES. 2016 World Hunger and Poverty Facts and Statistics. *Hunger Notes* World Hunger Education Service (2016). Available at: http://www.worldhunger.org/2015-world-hunger-and-poverty-facts-and-statistics/. (Accessed: 3rd March 2017)

2. Bhattarai, D. R., Subedi, G. D., Acharya, T. P., Schreinemachers, P., Yang, R., Luther, G., Dhungana, U., Poudyal, K. P. & Kashichwa, N. K. Effect of School Vegetable Garden¬ing on Knowledge, Willingness and Consumption of Vegetables in Mid-hills of Nepal. International Journal of Horticulture 5, 1–7 (2015).

3. Schreinemachers, P., Bhattarai, D. R., Subedi, G. D., Acharaya, T. P., Chen, H., Yang, R., Kashichhawa, N. K., Dhungana, Upendra Luther, G. & Maureen, M. Impact of school gardens in Nepal: A cluster randomized controlled trial. Journal of Development Effectiveness 1–15 (2017).

4. Schreinemachers, P., Rai, B. B., Dorji, D., Chen, H., Dukpa, T., Thinley, N. & Lhamo Sherpa, Passang Yang, R.-Y. School gardening in Bhutan: evaluating outcomes and impact. Food Security

5. Schreinemachers, P., Ouedraogo, M. S., Thiombiano, A., Kouamé, S. R., Diagbouga, S., Sobgui, C. M., Chen, H. & Yang, R. Impact of school vegetable gardens and comple¬mentary education in Burkina Faso. Food and Nutrition Bulletin