

## PART 1: Description and all information of the outcome/impact reported

### TYPE

OICR: Outcome Impact Case Report

### TITLE

Participatory vegetable and seed system development enabled ethnic minority farmers in Northern Vietnam to form local value chain networks and increase production 5-7-fold.

### STATUS

New

### YEAR

2022

### OUTCOME IMPACT CASE REPORT

Study #4653

Stage of Maturity of change reported: stage 2

### GEOGRAPHIC SCOPE: NATIONAL



**COUNTRY:** The Socialist Republic of Viet Nam

### OUTCOME STORY/IMPACT STATEMENT

Through participatory vegetable and seed system development, ethnic minority farmers in target sites were organized in value chain groups to jointly produce and market various vegetable seeds/seedlings and vegetables. With the support of project partner and local partners, the groups' capacity to identify market opportunities and engage with value chain actors improved, whereby production increased by 5-7 times, from 70 to 400 tons after two years. Group and individual incomes also increased, and one group proceeded to register as a cooperative.



### Contributing external partners:

- Wageningen University and Research, The Netherlands
- Fruits and Vegetables Research Institute, Vietnam
- Tan Loc Phat Seed company, Vietnam

### PROMOTIONAL PRODUCTS

- Seed of change - Journey with ethnic minority communities in Northwest Vietnam [video](#).
- Improving nutrition - access to seed and school means for ethnic minorities in Vietnam and Laos, August 3, 2021. [NWO website](#).
- [NL-CGIAR Conference, 2-3 November 2022. Factsheet](#).
- Promoting consumption of diverse foods for health and nutrition and ways to improve vegetable production, seed selection and storage [Poster](#).
- H'mong mustard seed production calendar. [Poster](#).
- French bean seed production calendar. [Poster](#).

## CGIAR INNOVATION(S) OR FINDINGS THAT HAVE RESULTED IN THIS OUTCOME OR IMPACT

Results from a seed system characterization study that elaborated the strengths, opportunities, and challenges in the vegetable seed systems, and vegetable availability and utilization among ethnic minority farmers in Northern Vietnam were used to identify on-farm management and value chain innovations most suited to the target sites, in consultation with local partners [1]. Value chain arrangements through ethnic minority farmer groups producing quality seeds for selected markets, and/or improving vegetable production and sales through improved access to quality seed/planting material were tested. This included capacity building supported by learning visits and produced extension materials, and regular updates and exchanges with local authorities and local stakeholders. As well as establishment of a network of actors directly participating in the chain (farmer groups, local buyers, seed companies) and those supporting the actors (local authorities, local extension workers, etc.) towards the development of value chains for vegetables and quality seeds.

---

## GENDER, YOUTH, CAPACITY DEVELOPMENT AND CLIMATE CHANGE

- **CapDev relevance:** 2 - Principal. Building of the capacity of farmers and other actors in the vegetable seed value chain was a core element of the innovation [6, 8, 9, 10, 11, 12]
- **Gender relevance:** 2 - Principal. Improved capacity of women to participate in seed and vegetable production and marketing [6, 8, 9, 10, 11, 12]
- **Other cross-cutting dimensions description:** Among the next users and end users were ethnic minority groups in Northern Vietnam. The innovation particularly focused on the H'mong, Thai and Dao ethnic groups.



## ELABORATION OF OUTCOME/IMPACT STATEMENT

A study of the vegetable seed systems among H'mong, Thai and Dao ethnic groups in the North of Vietnam [1-6] identified hurdles faced by minority farmers. These included access to market information and capacity to evaluate and determine market needs and how the farmers/groups can tap into the market; and agency (knowledge, confidence, capacity) to engage other actors (extension, input suppliers, buyers, etc.). Over two years, extensive training was provided to ethnic minority groups in Mai Son district, Son La province and Sa Pa township, and Lao Cai province [7], supported by dissemination of knowledge materials on seed and vegetable production, handling and storage, nutrition, group formation, and business/marketing skills, and learning visits. This strengthened the knowledge, attitudes, and skills of 27 Dao and Thai ethnic minority farmers (14 women) and multiple local partners [7]. In Mai Son, seed/seedling production rose from 70 to 400 tons and group income increased 8-fold after two years [7]. Farmers in Sa Pa previously not in the seedling production business achieved USD51-60 per household after a 4-6month season [7]. There was also improved selection and use of quality seeds from both formal and informal seed systems [7,10]. The practical and tailored training of the farmer groups increased their agency and ability to engage with other value chains actors [7,10]. This was further supported by direct engagement by government and community organizations. A network of 25 different types of local organizations was established for the development of value chains for vegetables and quality seeds. This included 14 actors directly participating in and working with the farmer groups (seed/seedling buyers, vegetable buyers, seed distribution companies, and networks of local stores) and 11 actors providing indirect support, such as agricultural extension, women's unions, farmers' unions; and people's committees). The farmer groups built connections with vegetable buyers (cooperatives, companies), and seed/seedling buyers (cooperatives, seed distribution companies, local seed stores)[10-12].

Nursery houses established with in-kind support from farmers for seed/seedling production and were managed by the groups to enable consistent production of seedlings for sale, and participatory learning and sharing of recommended practices in seed and vegetable production with members and the community [10]. One farmer group upgraded to a cooperative with legal status [7]. The local government actively supported the establishment of the nursery houses and skilling and registration of the groups and is interested in further supporting these groups [12].

## KEY CONTRIBUTORS



Lever 4 - Agrobiodiversity

## PART 2: Mapping to Alliance strategy and structure

### SDG TARGETS



- **2.2** - By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
- **2.4** - By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
- **1.1** - By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

### REFERENCES

1. Nabuuma, D.; Swaans, K.; Pham, T.M.H.; Hoang, T.K.; Nguyen, T.T.L.; Ngo, T.H.; Stomph, T.-J. 2021. Vegetable seed systems among ethnic minority communities in northern Vietnam. [Policy Brief No.1]. Alliance of Bioversity International and CIAT. [here](#)
2. Nguyen T. P., Stomph, T.-J., Swaans K., Pham T.M.H. 2020. Seed system characterization (step 1): Focus group discussions and key informant interviews (Mai Son and Sa Pa districts). [Not publicly shared- PhD thesis related manuscript underway].
3. Swaans K., T.M.H. 2020. Seed system characterization (step 2a): Household survey- vegetable production & seed systems (Mai Son and Sa Pa districts). [Not publicly shared- PhD thesis related manuscript underway].
4. Raneri E. J. and Hoang T.K. 2020. Seed system characterization (step 2b): Descriptive results from the nutrition component of the household survey (Mai Son & Sa Pa districts). [Not publicly shared- PhD thesis related manuscript underway].
5. Nguyen T.L., Nabuuma D., Hoang T.K. 2020. Seed system characterization (step 3a): Seasonal characteristics, barrier analysis and seed quality of prioritized crops (Mai Son district)[Not publicly shared- PhD thesis related manuscript underway].
6. Nguyen T.L., Nabuuma D., Pham Thi M.H. 2020. Seed system characterization (step 3b): seasonal characteristics, barriers analysis and seed quality of prioritized crops (Sa Pa district). [Not publicly shared- PhD thesis related manuscript underway].
7. Pham T.M.H., Nguyen T.T.L., Le N.T., Nguyen T.S., Mai T.N.N., Ngo T.H., Nguyen T.P., Hoang M.C., Tran X.D., Nguyen T.L.H., Nabuuma D. 2022. Value chain development for vegetable seeds and seedlings for income generation. [Not publicly shared- publication underway].
8. Nabuuma, D.; Hoang The, K.; Reimers, C.; Raneri, J.; Nguyen Thi Thuy, L.; Gauchan, D.; Stomph, T.; Swaans, K. 2020 Impact pathways from seeds to nutrition. Hanoi (Vietnam): The Alliance of Bioversity International and CIAT. [here](#)
9. Bringing better seeds to indigenous farmers in Vietnam's Northern highlands: Vietnam Economy newspaper, Feb, 2021. [here](#)
10. Le Nhu Thinh. 2022. Enhancing the participation of Dao women in Ngu Chi Son commune, Sa Pa town, Lao Cai province in vegetable seed production and trading through visiting and learning activities. Fruit and Vegetable Research Institute. [here](#)
11. Son La TV channel. 04 August 2022. Van Phuc Safe Vegetable Cooperation. [here](#)
12. VTC1 - NEWS. November 2022. Seed of change - Journey with ethnic minority communities in Northwest Vietnam. Alliance of Bioversity International and CIAT. [here](#)
13. Nguyen Thi Van Anh. 12 Oct 2022. End of Project Workshop on Seed System toward to nutrition and income in Sa Pa town. Economic Department of Sa Pa town. Gate of Lao Cai DARD website. [here](#)

### CONTACT PERSON

#### Kees Swaans

Senior Scientist,  
Alliance of Bioversity & CIAT | CGIAR  
✉ [c.swaans@cgiar.org](mailto:c.swaans@cgiar.org)

#### Deborah Nabuuma

Associate Scientist,  
Alliance of Bioversity & CIAT | CGIAR  
✉ [d.nabuuma@cgiar.org](mailto:d.nabuuma@cgiar.org)



© 2023. This work is openly licensed via [CC BY NC](#)

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) delivers research-based solutions that harness agricultural biodiversity and sustainably transform food systems to improve people's lives. Alliance solutions address the global crises of malnutrition, climate change, biodiversity loss, and environmental degradation.



The Alliance is part of CGIAR, a global research partnership for a food-secure future.

<http://alliancebioversityciat.org>

[www.cgiar.org](http://www.cgiar.org)