

Linking School Gardening and Feeding: Experience from the School-Plus-Home Gardens Project (S+HGP) in the Philippines

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DepEd Laguna partners

Mr. Lambert Perolina – EPP/TLE Supervisor (Laguna)

5 Elementary + 1 High School partners



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School-plus-home Gardens Project

Travel Grant

Director , Dr. Gil C. Saguiguit

UP Los Baños

Agricultural Systems Institute, CAFS

Edible Landscape Program, I-Crops, CAFS

Institute of Human Food and Nutrition, CHE



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Discussion Topics:

- 1. Overview of the School Plus Home Gardens Project (S+HGP) (9-min video)**
- 2. Conceptual and Operational framework linking school gardening and feeding**
- 3. Key Success Factors of the School Gardening and Feeding Linkage**



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School Plus Home Gardens Project (S+HGP)

(9-min video: <https://youtu.be/0td2Aw4chFw>)



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Success Factors in Linking School Gardening and Feeding Under the School-plus-home Gardens Project (S+HGP)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.



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1. Policies that support school gardening and feeding

1.1. Department of Education (DepEd) ordinances and memoranda

- School Gardening promoted since 1970s (ML); in 2007 implemented as “Gulayan sa Paaralan (GPP)”
- School-based Feeding Program for undernourished school children promoted since 1997; in 2016 implemented as the “School-based Feeding Program ”



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1.2. Department of Agriculture memo and law

- 2010; 2013: DA-Bureau of Plant Industry to coordinate with DepEd to support School Gardening**
- 2010: Republic Act 10068 or the Organic Agriculture Act (IRR) directed the integration of OA in primary and secondary schools**



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In short, we had the policies, memo and laws... but the question is “What about the implementation?”



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* Challenges to Implementation of GPP and SBFP

- Initial memos were separately issued by DepEd and DA thus were implemented as separate programs in the schools.
- Even if later memos mentioned that harvests from GPP were to be used for SBFP, still many schools implemented it separately (in some schools the garden only served as back-up to the SBFP)



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*** Challenges to Implementation of GPP and SBFP**

- GPP was assigned to the EPP/TLE teacher while SBFP was assigned to the canteen coordinator.**
- GPP was done mostly for compliance.**
- GPP was regarded as “additional workload” for teachers.**



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On the positive side...

the policies were important to give the legal basis to implement and allocate funds for the program.



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2. Integrative Conceptual and Operational Framework



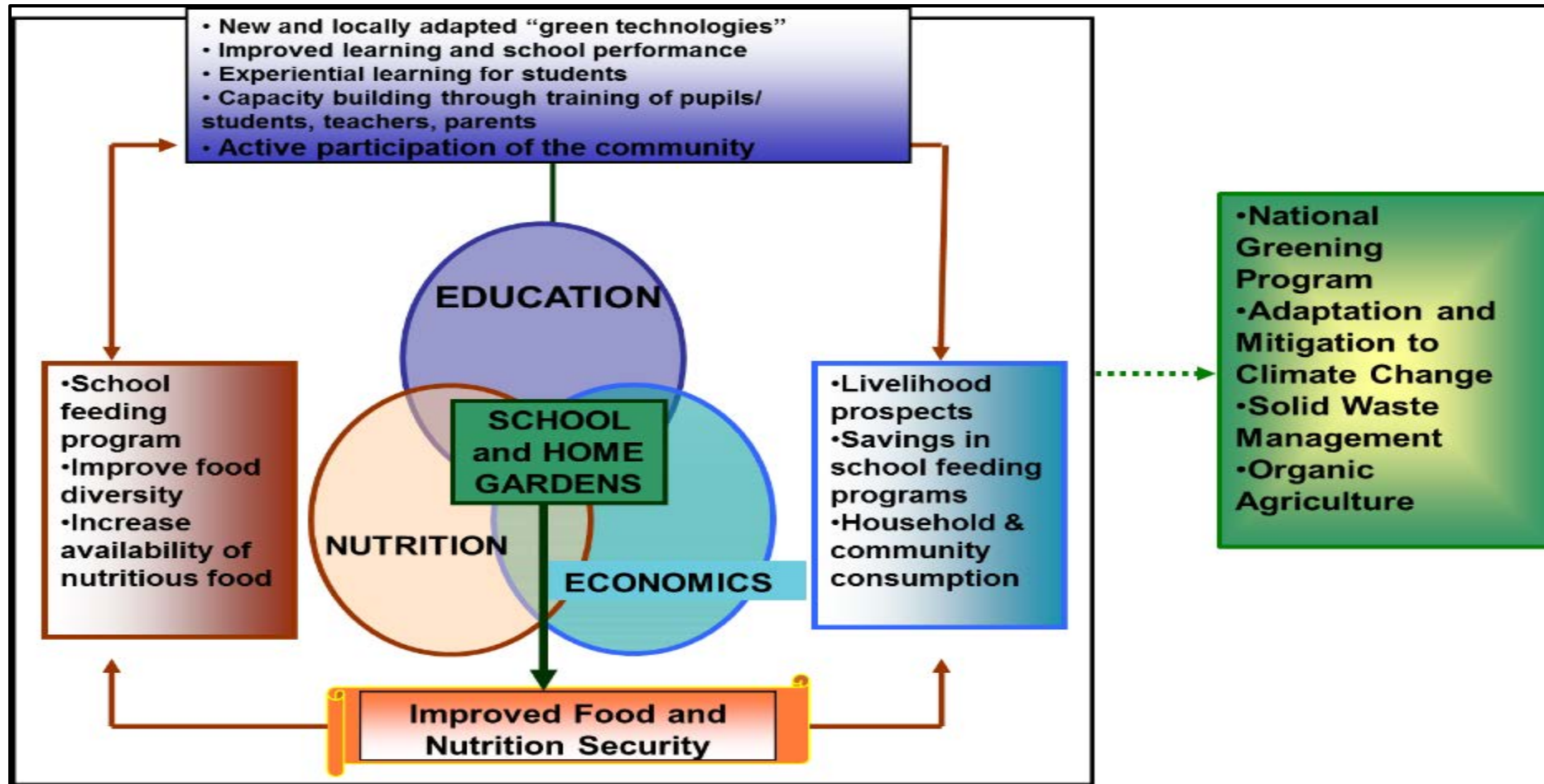
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- Conceptual Framework Linking School Gardening and Feeding:



*** DepEd's School-based Feeding Program**

- **Feeding of severely wasted and wasted pupils.**
- **Feeding period is for only 100-120 days.**
- **Food budget is P18.00/child**
- P16.00 for food; P2.00 for operations)



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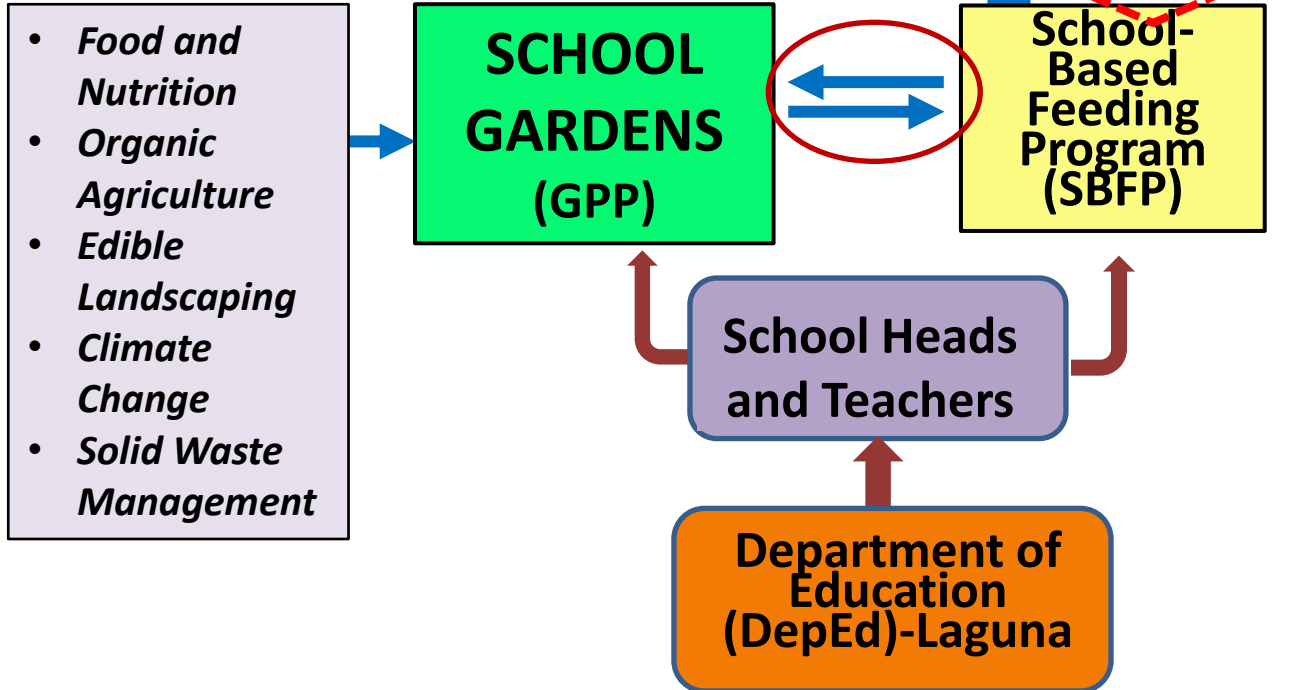
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- Operational Model Linking School Gardening and Feeding:

Well-nourished, Healthy and Well-educated Children



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* Challenges to the SBFP

- **PIDS study showed 9 out of 14 schools surveyed had repeat beneficiary pupils from the previous year's SBFP** (Tabunda, et al 2016)
 - Lack of food during the rest of the year
 - Illnesses
 - Parents' attitudes and values



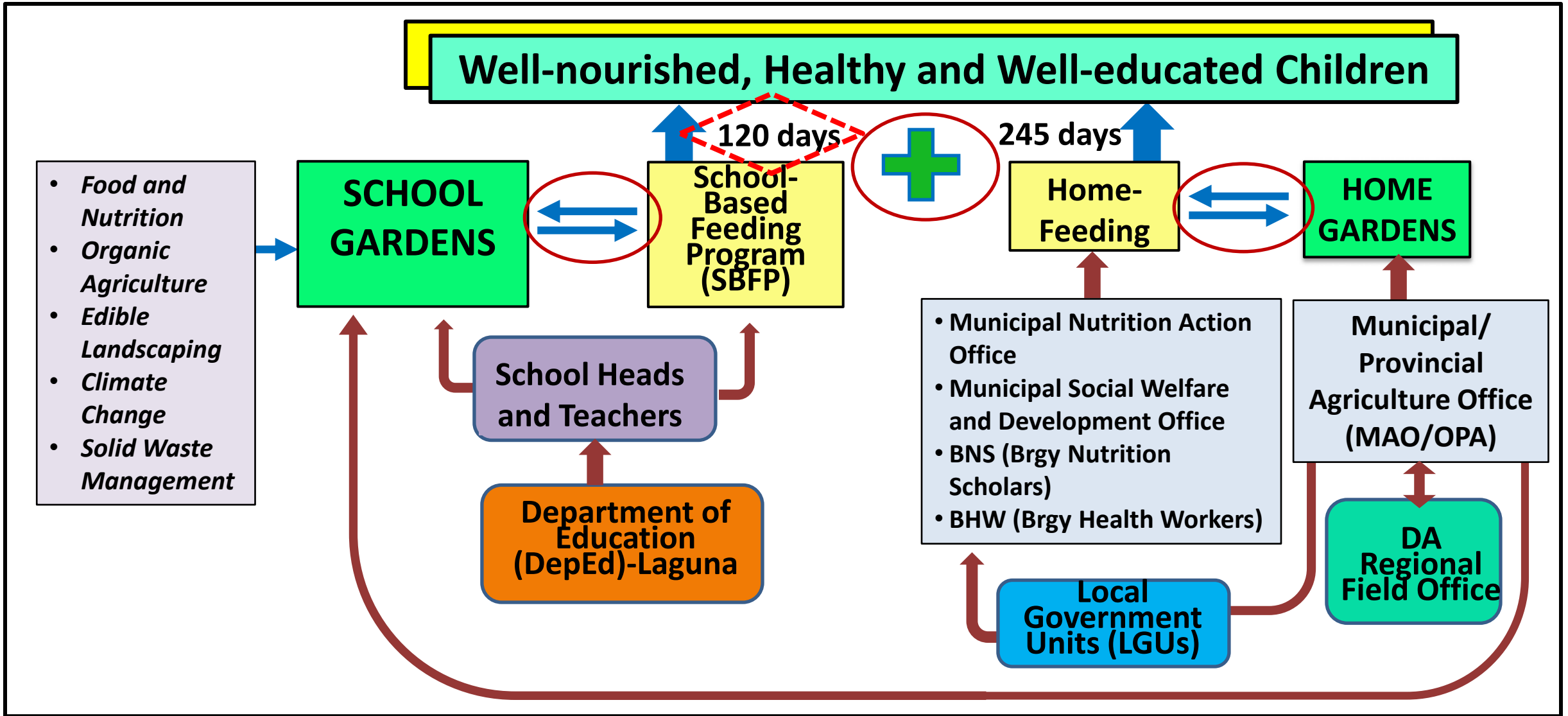
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- Operational Model Linking School Gardening and Feeding:



3. Multi-stakeholder Capacity Building and Linkages

- a. School Teachers and Heads**
- b. Parents**
- c. Local, Provincial and Regional government units**



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3.1. Capacity Building for School Teachers and other stakeholders

- Consultation and Planning Workshops**
- Training of Teacher Trainers**
- Joint lesson plan write-shops**
- Field tours and cross school garden visits**



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- Teachers' capacity and confidence to engage in the S+HGP was strengthened through participatory planning, action and M&E.



3. 2. Mobilizing and Capacity Building of Parents

- ✓ Values strengthening for parents to be more responsible for the nutrition of their children
- ✓ Encouraged greater parent involvement in school garden activities



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3.2. Mobilization and Capacity Building of Parents

- ✓ **Training and seminars on food production, gardening, food and nutrition**
- ✓ **Improved linkage with LGU (MAO, MNAO, BHW, BNS) and Local School Board for inputs and services**
- ✓ **Parent-child cooking contest using vegetables from the school garden**



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3.2. Mobilizing and Capacity Building of Parents

- ✓ **Parent-child cooking contest and recipe book compilation and standardization (c/o IHFN-CHE)**



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- Families actively engaged in their children's nutrition through school and home gardening.



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3.3. Improved coordination among Local, Provincial and Regional government units



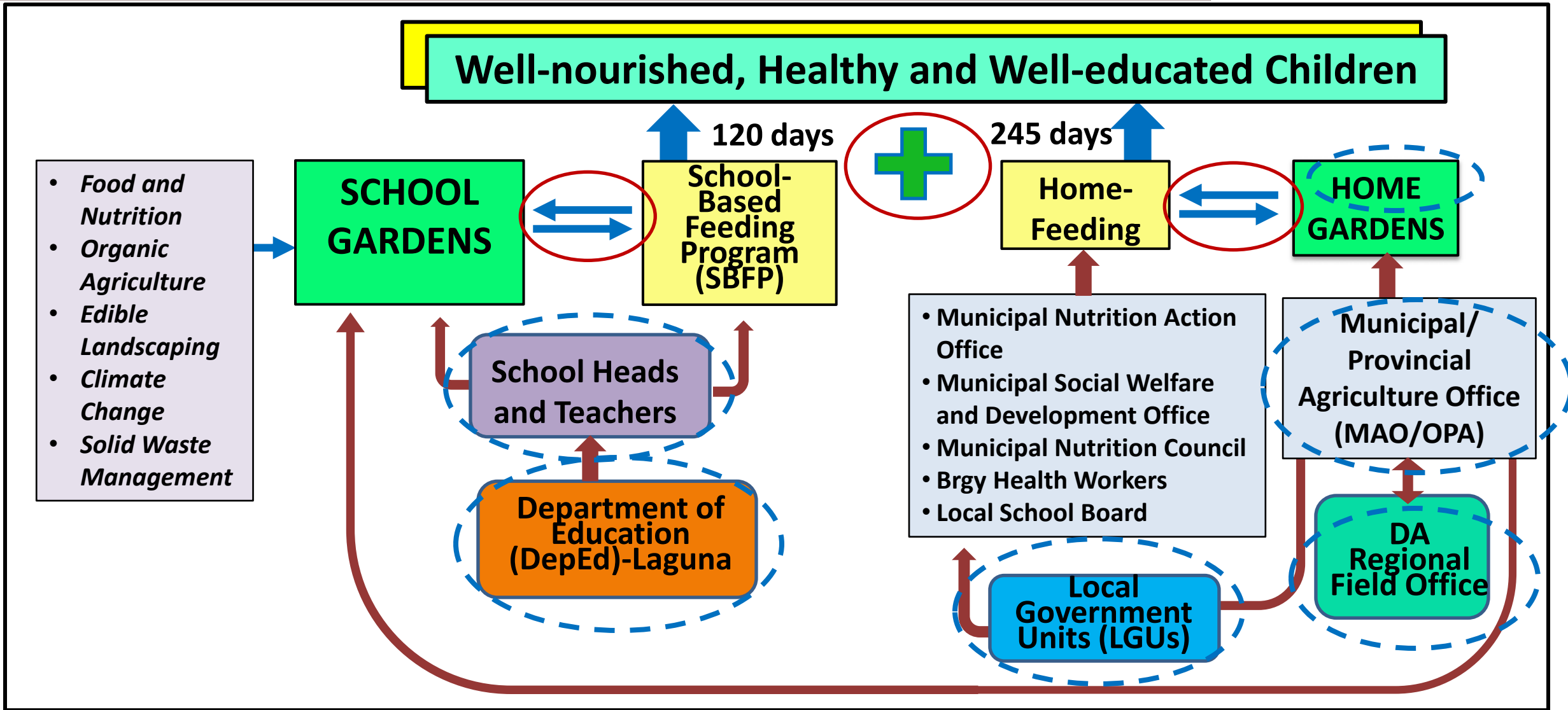
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- Operational Model Linking School Gardening and Feeding:



4. Integrating Gardening with the School Curricula



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- School Gardens being used as outdoor learning laboratories (Science, Math, English IV and VII)



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5. Improved Garden Structures and Planting Techniques for year-round production of vegetables



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Students enjoy planting.



Students enjoy eating what they planted.



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- Appropriate technologies for climate-smart organic vegetable production



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Year-round production of vegetables:

- plant different kinds
- plant at different months

| Crop | | 2016 | | | | | | | 2017 | | |
|---------------------|----------------------|------|-----|----|-----|-----|----|-----|------|-----|----|
| Common English Name | Common Filipino Name | Jun | Jul | Au | Sep | Oct | No | Dec | Jan | Feb | Ma |
| Arrow Root | Uraro | | | | | | | | * | * | * |
| Bottle Gourd | Upo | | | | | * | | * | * | | |
| Chili Pepper | Sili | | | | | | | * | * | * | * |
| Corn | Mais | | | | * | * | | | | | |
| Cowpea | Paayap | | | | | * | * | | | | |
| Eggplant | Talong | | | | | * | * | | | | |
| Lettuce | Letsugas | | | | * | * | | | | * | * |
| Lima Beans | Patani | | | | | | | * | | * | * |
| Mustard | Mustasa | | * | * | * | | | | | * | * |
| Nalta Jute | Saluyot | | | | | | * | | | | * |
| Okra | Okra | | | | * | * | | | | | * |
| Papaya | Papaya | | | * | * | * | | | | * | * |
| Pechay | Pechay | | | * | * | * | * | | | * | * |
| Pigeon Pea | Kadyos | | | | | | | | | | * |
| Spiny Amaranth | Kulitis | | | | | * | * | | | * | * |
| Sponge Gourd | Patola | | | | * | * | | | | | |
| String Beans | Sitaw | | | * | * | | | | | * | * |
| Sweet Potato Shoots | Talbos ng Kamote | * | * | * | * | * | * | * | * | * | * |
| Tomatoes | Kamatis | | | | | * | | | | | * |
| Water Spinach | Kangkong | * | * | * | * | * | * | | | * | * |
| Winged beans | Sigarilyas | | | | | | | | | * | * |

6. Participatory Development Approach

Facilitation of Participatory Processes

- Participatory Visioning and Situation Analysis
- Joint Action Planning
- Collaborative Implementation
- **Participatory Monitoring and Evaluation**



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7. Inclusive and Stepwise Scaling up

- No school shall be left behind (include smallest and farthest schools)
- Continuing coordination with respective local, provincial and regional partners
- Stepwise and documented scaling up from pilot-to-sister-to-brother schools



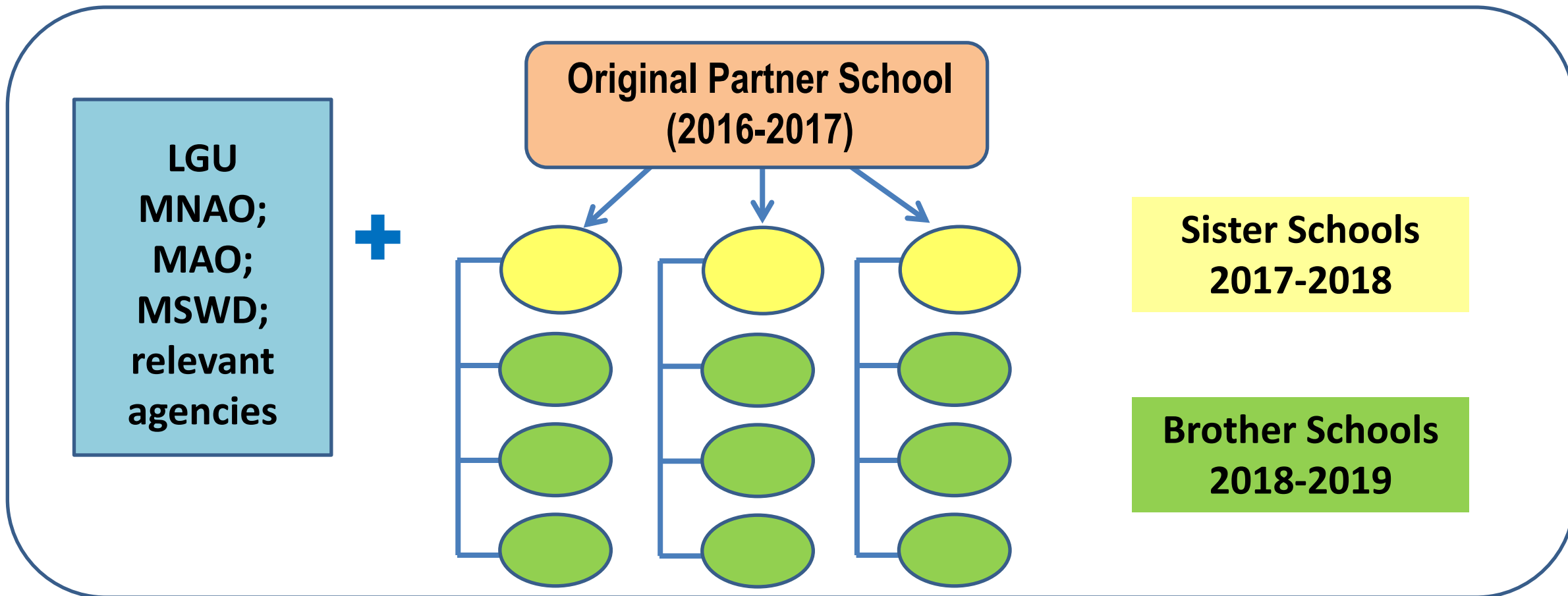
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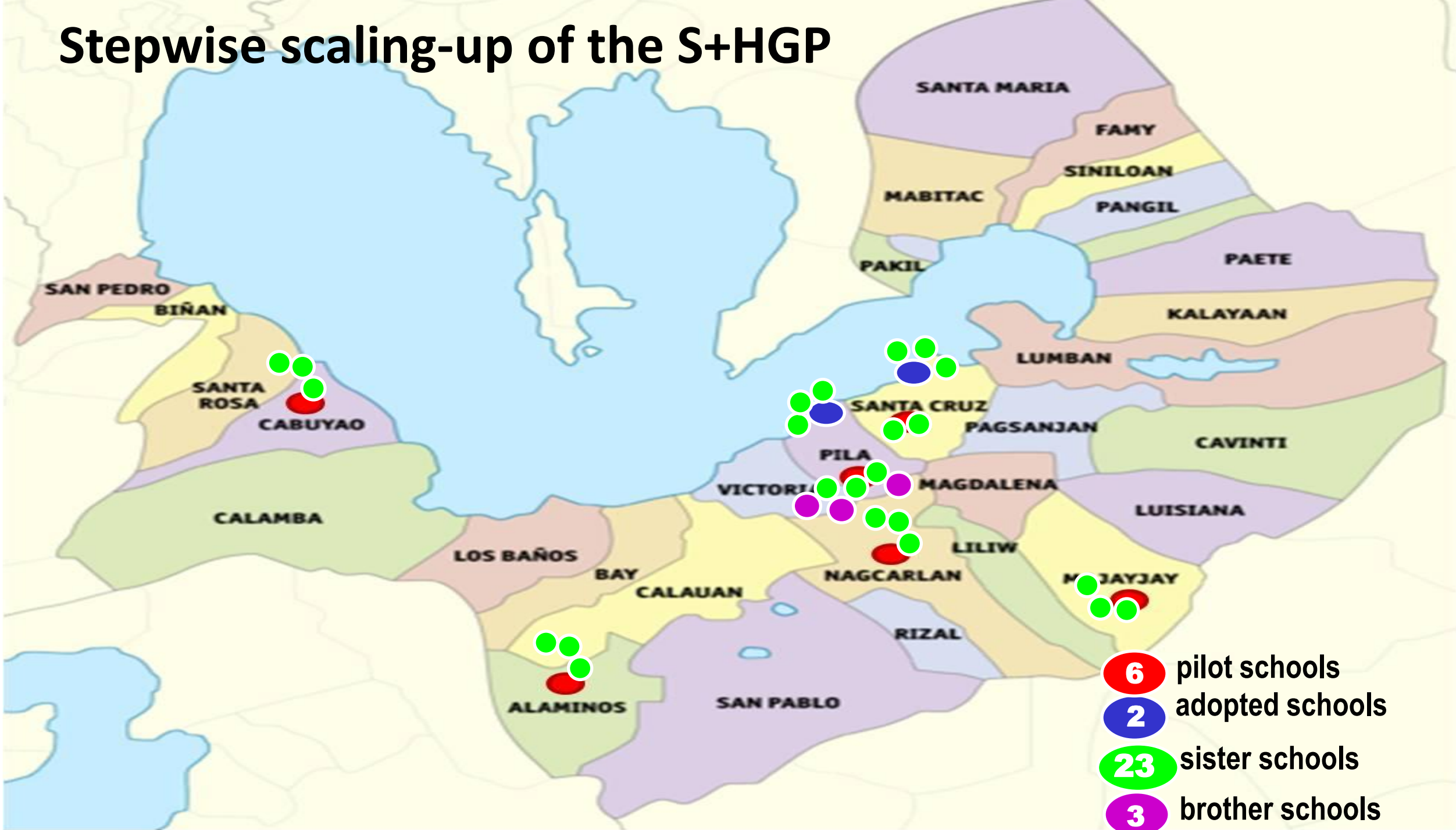
8. Inclusive and Stepwise Scaling up



Stepwise scaling-up of the S+HGP



Stepwise scaling-up of the S+HGP



8. Information Dissemination

- Facebook
- Video (YouTube)
- Tarpaulin flip charts
- Guidebook
- Brochures, flyers, posters
- Newspaper/Magazine features
- International conference
- Training of Trainers for Southeast Asia
- TV Patrol Interview



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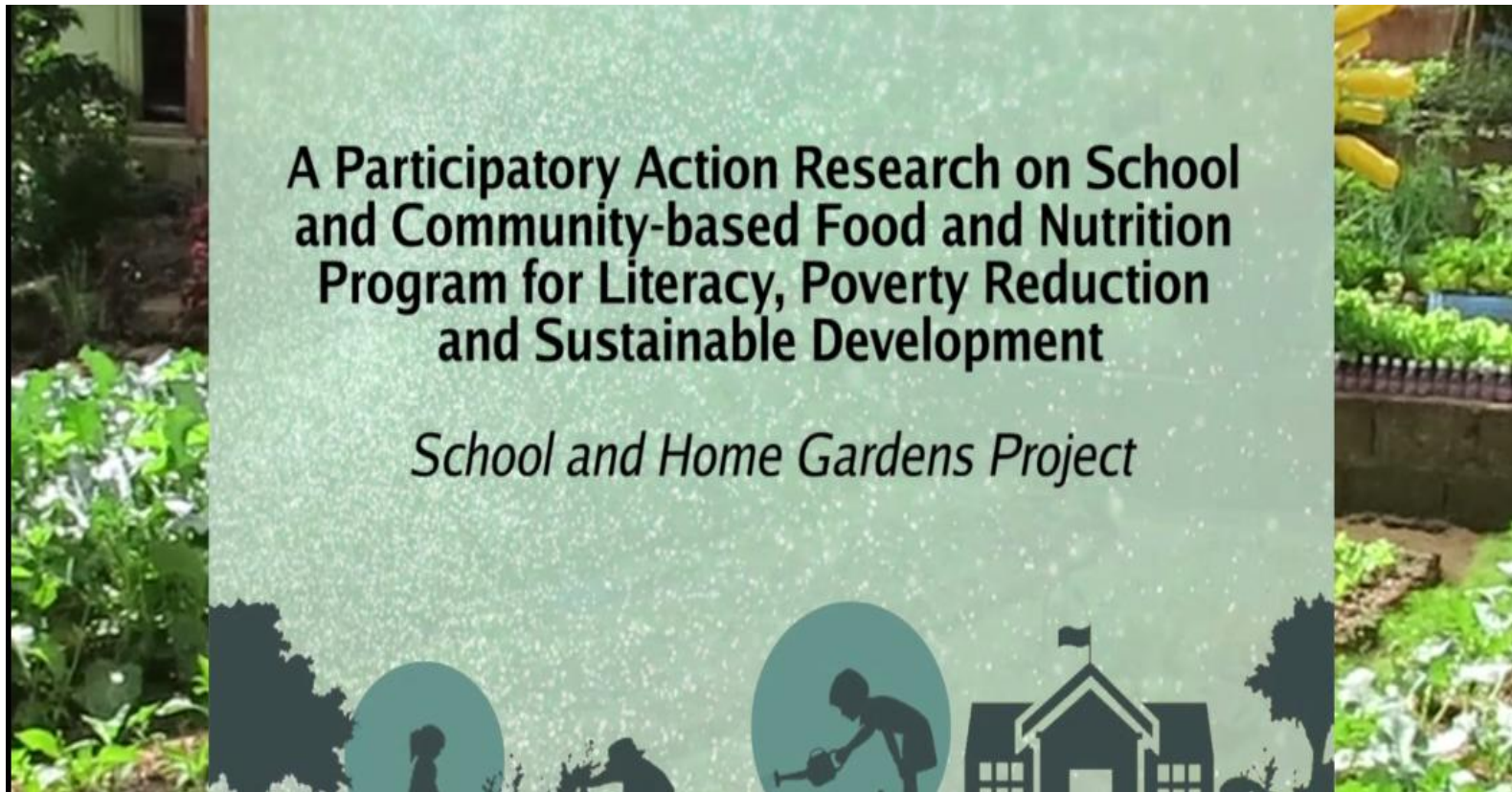
SHGP Facebook Group:



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<https://www.youtube.com/watch?v=0td2Aw4chFw>



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ORGANIKONG PAMAMARAAN UPANG MAKAIWAS SA MGA PESTE



Pagbaba



Pag-iispra



Pagtatani



Paglala

Acut

Pa

Pa

Pa

Chro

Te

an

Ca

Al

Ni

Paano

Ang pakik

Natu

1. Pa

• Iba

• Hu

• Pu

• Pu

3. Su

Am

4. Pa

EPEKTO NG PAGGAMIT NG

NATURAL NA PANGANGALAGA LABAN SA MGA PESTE NG GULAY

PAGGAWA NG VERMICOMPOST

Ang Vermicompost ay isang or at dumi ng hayop sa tulong ng b

Pagpili ng lugar

- malapit sa pinagkukunan ng mga nabubulok na materyales sa pagg
- malilim
- may bubong
- hindi binabaha (Good drainage)

Pagtanda ng substrate

- Isalansan (alternate layer) ang tin na dahon o damo at dumi ng hay
- Diliging mabuti.
- Takpan ng sako o plastic sa loob 2 linggo. Hayaang mag-init (55-70°C) upang mamatay ang masasaman mikrobyo (pathogens) at buto n damo (weed seeds).
- Alisin ang takip pagkaraan ng 2 linggo at pasingawin ng 2-3 araw.

Paglalagay ng bulate sa bin

- Lagyan ng bulate ang binulok na substrate (1 kg bulate sa bawat 3m² bin). Huwag pabayaang matuyo ang substrate. Diligin kung kinakailangan.

Pag-ani ng vermicompost

- Anihin ang vermicompost sa iba pang makalipas ang 30-35 araw mula sa paglagay ng bulate. Maaaring mag-ani kung kinakailangan.
- Patuyuin ang vermicompost (35% water content) sa hangin sa loob ng 2-3 araw o ig-igin ang vermicompost bag sa hangin.

Tuloy-tuloy na paggawa ng vermicompost at pagpaparami ng bulate

- Sa araw na maglagay ng bulate sa bin ay mag-simula na ulit maghanda ng substrate. Ilagay ito sa pangalawa na bin.
- Sa huling araw ng pag-ani ng vermicompost, maaari nang ilipat ang bulate sa bin sa pangalawang bin.

PAGPAPAUNLAD NG KABUHAYAN MULA SA ORGANIKONG GULAYAN

ANO ang ORGANIKONG PAGGUGULAYAN?



Isang sistema ng paghahalaman na:

- Nangangalaga sa kalusugan ng mga magsasaka at ng mga mamimili
- Nangangalaga sa kalikasan
- Pagsasakang may konsensya
- Umiiwas sa paggamit ng pestisidyong lason, mga di natural na abono at ng mga GMO (Genetically Modified Organisms)

BENEFISYO ng ORGANIKONG GULAY

- Ligtas sa lason
- Mas masustansya
- Mas malasa
- Matagal nananatiling sariwa
- Nakakabuti sa kapaligiran
- Mataas ang demand



FERMENTED FRUIT JUICE (FFJ)

Mga Gagamitin

FERMENTED PLANT JUICE (FPJ)

Mga Gagamitin

- 2 kilo murang dahon ng kakawati, neem tree o ipil-ipil

ORGANIKONG PANGANGALAGA SA LUPA

Organikong lupa ay alaga ng halaman na nagbubunga ng anyang pagkain. Ang ulok o "decomposition" na paraan upang ng sustansya ng lupa ng "soil organisms" may buhay sa lupa.



earthworms



soil organisms



millipede

Paano mag-ani ng compost?

Mag-ani ng halaman at dumi ng hayop sa tulong ng "soil organisms"

Paano mag-ani ng compost?

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Paano mag-ani ng compost?

Mag-ani ng halaman at dumi ng hayop sa tulong ng "soil organisms"



Mahusay gawing compost ang dumi ng baka



ipil-ipil (Leucaena)



kakawati (Gliricidia)



neem (Azadirachta)

PAMAMARAAN SA ORGANIKONG PANGANGALAGA SA LUPA

Ang paggamit ng organikong pangangalaga sa lupa ay nagbibigay ng maraming benepisyo sa mga magsasaka at mamimili. Ang organikong pangangalaga sa lupa ay nagbibigay ng maraming benepisyo sa mga magsasaka at mamimili.



Ang paggamit ng organikong pangangalaga sa lupa ay nagbibigay ng maraming benepisyo sa mga magsasaka at mamimili.





PARTICIPATORY ACTION RESEARCH ON SCHOOL- AND COMMUNITY-BASED FOOD AND NUTRITION PROGRAM FOR LITERACY, POVERTY REDUCTION AND SUSTAINABLE DEVELOPMENT (SCHOOL AND HOME GARDENS PROJECT)

ESTABLISHING AND SUSTAINING SCHOOL-PLUS-HOME GARDENS

BACKGROUND

- The **school-plus-home gardens model** is based on the project titled "A Participatory Action Research on School- and Community-based Food and Nutrition Program for Literacy, Poverty Reduction and Sustainable Development" jointly implemented from January 2010 to June 2017 by the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), University of the Philippines Los Baños (UPLB), and Department of Education (DepEd)-Laguna, the lead coordinating agency of schools in the province of Laguna, Philippines.
- The project was piloted in six schools in Laguna to test the effectiveness of an integrated, participatory, and science-based approach to school gardening that improves the nutrition, education, and economic well-being of schoolchildren and their families.

THE STEP-BY-STEP PROCESS


The process of establishing, implementing, and sustaining school-plus-home gardens consists of ten steps.

- STEP 1** Starting up school gardens
- STEP 2** Constructing artistic school gardens
- STEP 3** Establishing school gardens for food and nutrition
- STEP 4** Establishing school gardens for education
- STEP 5** Linking school gardens with children's homes
- STEP 6** Strengthening partnerships with local institutions and building capacity of project partners
- STEP 7** Monitoring progress and evaluating performance
- STEP 8** Disseminating information and enhancing awareness
- STEP 9** Scaling up the school-plus-home gardens inclusively
- STEP 10** Determining overall outcomes and way forward


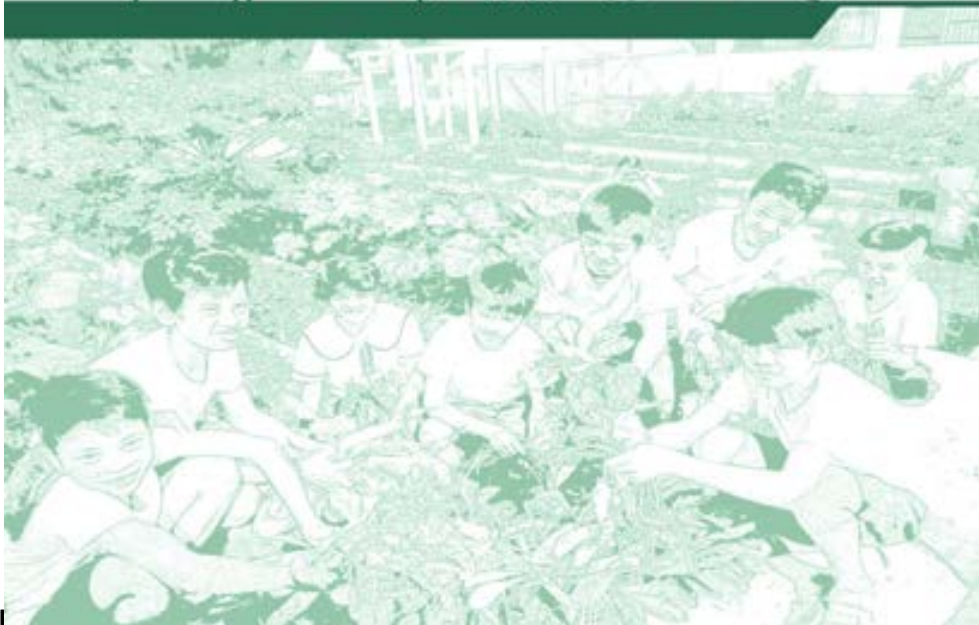
A self-propelling model with a mechanism for continued scaling up of the approach



For more details, please contact:
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 URL: <http://searca.org>



SCHOOL PLUS HOME GARDENS GUIDEBOOK


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INTERNATIONAL CONFERENCE ON SCHOOL GARDENS
 LEVERAGING THE MULTIFUNCTIONALITY OF SCHOOL GARDENS
 SEARCA Headquarters, Los Baños, Laguna, Philippines
 16-18 April 2018

RATIONALE
 Many school children suffer from various forms of malnutrition. It is important to address their nutritional status given that it affects their health, cognition, and subsequently their educational achievement (Grantham-McGregor & Olney, 2006). Schools are recognized as excellent setting for promoting lifelong healthy eating and improving long-term, sustainable nutrition security.

OBJECTIVES




TRAINING OF TRAINERS ON SCALING UP THE SCHOOL PLUS HOME GARDENS MODEL IN SOUTHEAST ASIA
 SEARCA Headquarters, Los Baños, Laguna, Philippines
 18-21 April 2018

Background and Rationale
 The project "Participatory Action Research on School and Community-Based Food and Nutrition Program for Literacy, Poverty Reduction and Sustainable Development," also known as School and Home Gardens Project (SGHP), was successfully implemented in 2016 to 2017 toward improved nutrition, education, and economic well-being of children in its six pilot schools. The pilot project established partnerships with five elementary and one secondary school in Laguna,

CONCLUSIONS

Success Factors of the school gardening and feeding linkage

1. Policy support
2. Integrative conceptual and operational framework
3. Multi-stakeholder Capacity Building and Linkage
 - a. School Teachers
 - b. Parents
 - c. Local, Provincial and Regional government units



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Success Factors of the school gardening and feeding linkage

4. Integrating gardening into school curricula
5. Improved garden structures and techniques
6. Participatory development approach
7. Inclusive and stepwise scaling-up
8. Information Dissemination



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**Let's do GOOD
Let's be FELT
and TOGETHER**

**Let's MAKE A DIFFERENCE in the lives
of our children!**



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Salamat po!



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