

Online training series
Nutrition Goes To School (NGTS)

**ສວນໂຮງຮຽນ ເພື່ອຄວາມຮູ້ທາງ
ດ້ານໂພຊະນາການ (School Garden for
Nutrition Literacy)**

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ຮອງຫົວໜ້າພາກວິຊາ ເສດຖະກິດຊົນນະບົດ ແລະ ເຕັກໂນໂລຊີ
ອາຫານ, ຄະນະກະເສດສາດ, ມະຫາວິທະຍາໄລແຫ່ງຊາດ

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Pre-learning activities

Lesson learning outcomes

After completing this lesson, the students will be able to: ຫຼັງຈາກຮຽນຈົບບົດຮຽນນີ້ແລ້ວ, ນັກຮຽນຈະສາມາດ:

- Generate different ideas the concept of nutrition, malnutrition, and nutrition literacy ສ້າງແນວຄວາມຄິດທີ່ແຕກຕ່າງກັນແນວຄວາມຄິດຂອງໂພຊະນາການ, ການຂາດໂພຊະນາການ, ແລະ ຄວາມຮູ້ດ້ານໂພຊະນາການ
- define the school garden for nutrition at school ໃຫ້ຄຳນິຍາມ ສວນໂຮງຮຽນເພື່ອໂພຊະນາການ
- Understand concept and principle that will be able to apply agroecological practices at school for nutrition ເຂົ້າໃຈ ແນວຄວາມຄິດ ແລະ ຫຼັກການທີ່ຈະສາມາດນຳໃຊ້ການປະຕິບັດດ້ານນິເວດກະສິກຳຢູ່ໃນໂຮງຮຽນສຳລັບໂພຊະນາການ

Lesson overviews (this is the outline of this lesson)

In this lesson, learners will learn about:

1. ຄວາມສໍາຄັນຂອງຄວາມຮູ້ດ້ານໂພຊະນາການຢູ່ໃນໂຮງຮຽນ (Importance of nutrition literacy at school)
2. the consequence of malnutrition in children under five and young students (ຜົນກະທົບໃນການຂາດໂພຊະນາການໃນເດັກນ້ອຍຕໍ່າກວ່າ 5 ປີ ແລະ ເດັກນ້ອຍ)
3. Understand concept of the school garden and can set up school garden ເຂົ້າບັນດາຫຼັກການກ່ຽວກັບສວນໂຮງຮຽນ ແລະ ສາມາດສ້າງ ສວນຄົວໃນໂຮງຮຽນເພື່ອໂພຊະນາການ

Keywords

Keywords	Definition
Nutrition ໂພຊະນາການ	the study of nutrients in food, how the body uses them, and the relationship between diet, health, and disease ການສຶກສາຂອງສານອາຫານໃນອາຫານ, ວິທີທີ່ຮ່າງກາຍໃຊ້ພວກມັນ, ແລະຄວາມສໍາພັນລະຫວ່າງອາຫານ, ສຸຂະພາບ, ແລະພະຍາດ
Malnutrition ການຂາດໂພຊະນາການ	Malnutrition refers to a state of nutritional imbalance, which can occur when the body doesn't get enough or gets too much of essential nutrients. It's a significant global health issue, particularly affecting children and vulnerable populations ການຂາດໂພຊະນາການໝາຍເຖິງສະຖານະຂອງຄວາມບໍ່ສົມດຸນທາງດ້ານສານອາຫານ, ເຊິ່ງສາມາດເກີດຂຶ້ນໄດ້ເມື່ອຮ່າງກາຍບໍ່ໄດ້ຮັບພຽງພໍ ຫຼື ໄດ້ຮັບສານອາຫານທີ່ຈໍາເປັນຫຼາຍເກີນໄປ. ມັນເປັນບັນຫາສຸຂະພາບທີ່ສໍາຄັນຂອງໂລກ, ໂດຍສະເພາະຜົນກະທົບຕໍ່ເດັກນ້ອຍ ແລະ ປະຊາກອນທີ່ມີຄວາມສ່ຽງ
Nutrition literacy ຄວາມຮູ້ທາງດ້ານໂພຊະນາການ	Nutrition literacy refers to the ability to obtain, process, and understand nutrition information and skills needed to make appropriate nutrition decisions ການຂາດສານອາຫານໝາຍເຖິງສະຖານະຂອງຄວາມບໍ່ສົມດຸນທາງໂພຊະນາການ, ເຊິ່ງສາມາດເກີດຂຶ້ນໄດ້ເມື່ອຮ່າງກາຍບໍ່ໄດ້ຮັບພຽງພໍ ຫຼື ໄດ້ຮັບສານອາຫານທີ່ຈໍາເປັນຫຼາຍເກີນໄປ. ມັນເປັນບັນຫາສຸຂະພາບທີ່ສໍາຄັນຂອງໂລກ, ໂດຍສະເພາະຜົນກະທົບຕໍ່ເດັກນ້ອຍແລະປະຊາກອນທີ່ມີຄວາມສ່ຽງ
School garden ສວນໂຮງຮຽນ	A school garden is a garden cultivated by students, teachers, or staff at a school. It can be a small plot of land, and it can be used for a variety of purpose: foods, sell and learning tools. ສວນໂຮງຮຽນແມ່ນສວນບູກຜັງໂດຍນັກຮຽນ, ຄອາຈານ, ຫຼືພະນັກງານໃນໂຮງຮຽນ. ມັນສາມາດເປັນດິນຕອນຂະໜາດນ້ອຍ, ແລະມັນສາມາດຖືກນໍາໃຊ້ເພື່ອຈຸດປະສົງຕ່າງໆ ເຊັ່ນ ເປັນອາຫານ, ຂາຍ ແລະ ເປັນເຄື່ອງມືໃນການຮຽນຮູ້

Pre-quiz

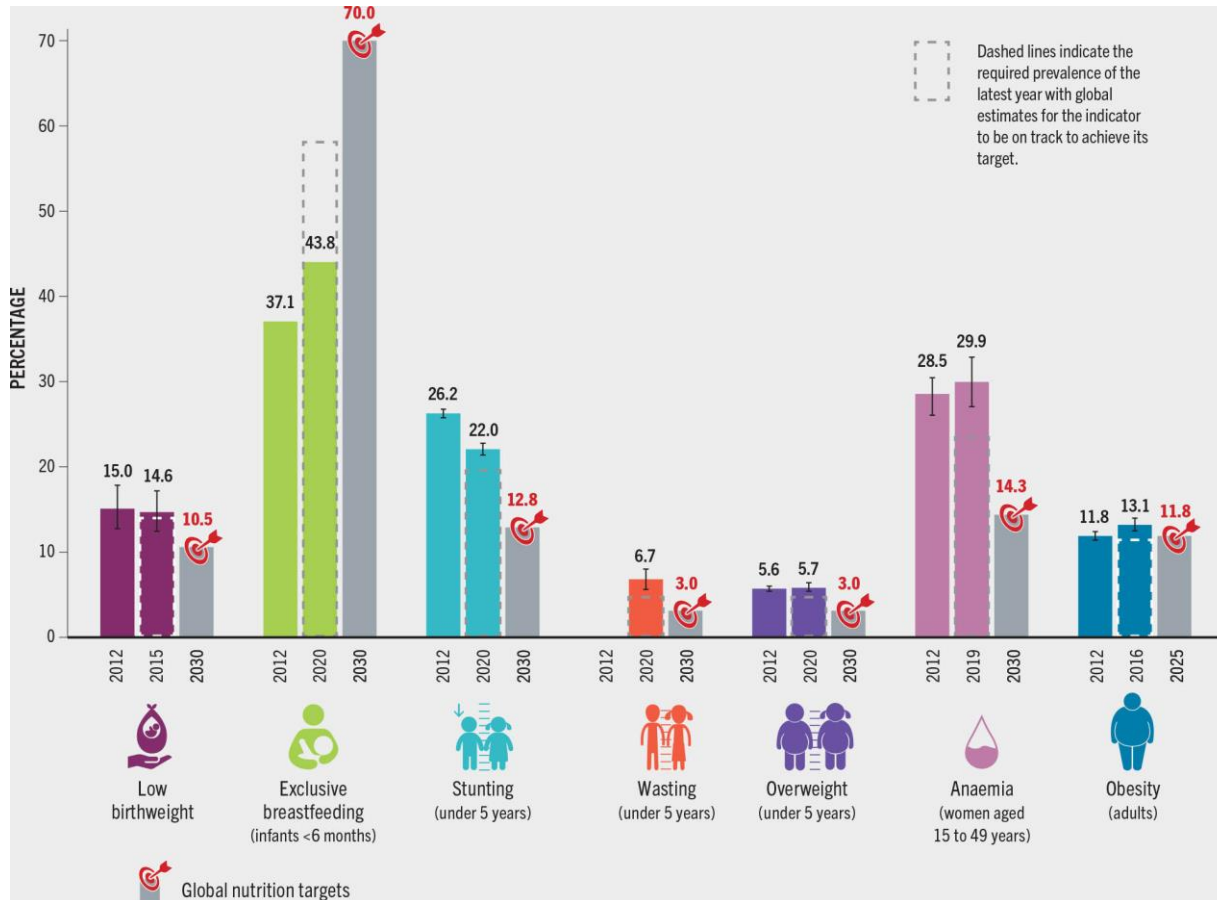
- This quiz is used to review previous lesson or ask students some questions related to the introduction of this lesson. You can add 3-5 questions. Types of questions could be: MCQ, True or False, Matching, Fill in short words.

Questions	Possible answer	Correct Answer	Feedback
Q1: What is school garden?	A. School garden can grow vegetables for sell and foods B. School garden can be used as teaching tools C. Process of repeating the existing food products D. Process of creating new or modifying existed food products	D	Food product development is a process of creating new or modifying existed food products.
Q2: What is the malnutrition of children under five and younger children?	A. Wasting B. Underweight C. Stunting D. Overweight E. All above	E	Malnutrition was classified in three categories such as wasting, underweight and stunting which children had not enough foods to eat while overweight or fat was new trend in the city
Q3: Do educational literacy and better nutrition link to poverty ?	A. True B. False	A. True	Malnutrition leads to fatigue and low concentration of kids, drop school and result in vicious circle of poverty



Lesson body

1. Importance of nutrition literacy in school-Malnutrition (ຄວາມສໍາຄັນຂອງຄວາມຮູ້ດ້ານໂພຊະນາການຢູ່ໃນໂຮງຮຽນ-ການຂາດໂພຊະນາການ)



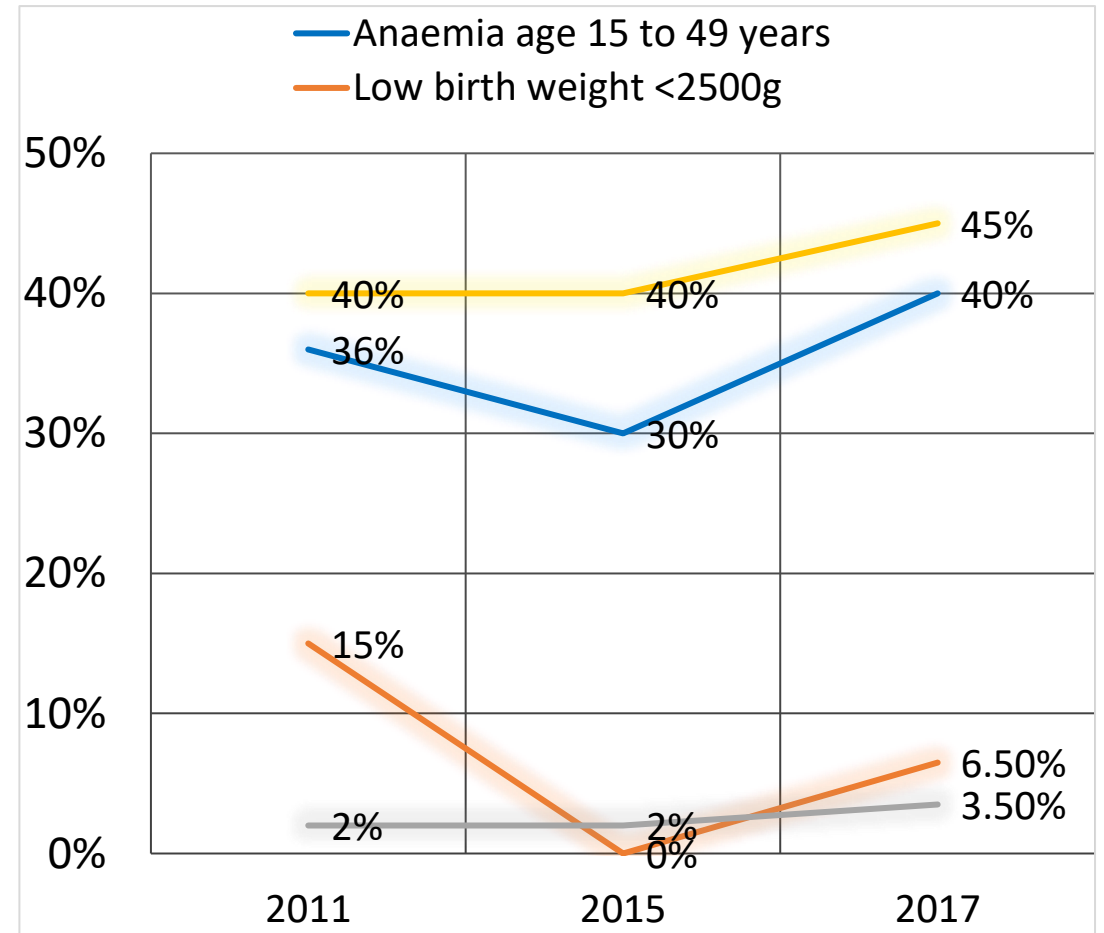
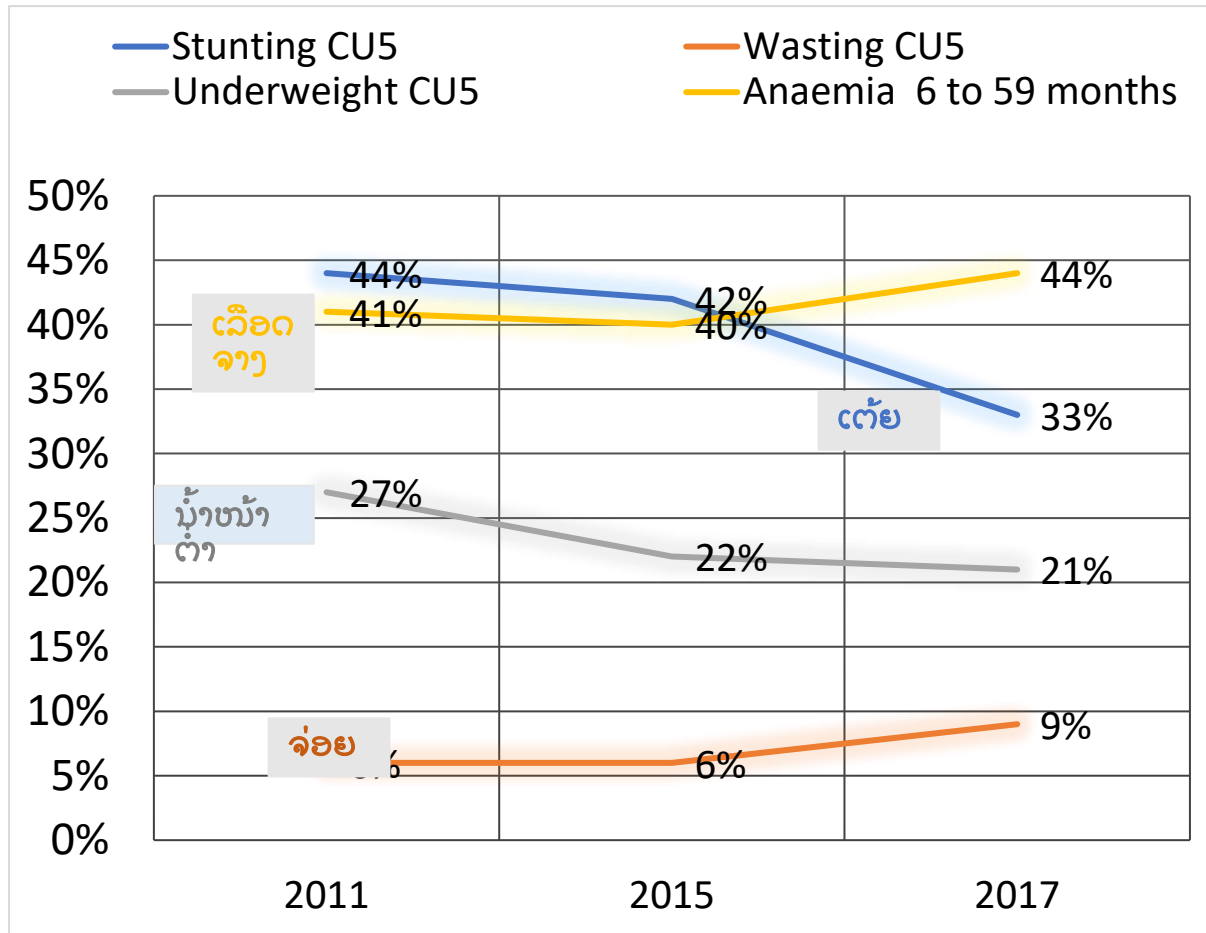
ສາຍເຫດ (Causes)

- ຮັບປະທານອາຫານຫວານຫຼາຍ, ໄຂມັນສູງ ແລະ ພະລັງງານສູງ (Intake of high sugar, high fat and high-calorie food)
- ບໍ່ໝັກເຄື່ອນໄຫວ (Sedentary lifestyle)

ບັນຫາການຂາດສາອາຫານຂອງ ເດັກນ້ອຍຍັງເປັນ
ບັນຫາສໍາຄັນໃນໂລກນີ້ (UNICEF, 2022)

1. Importance of nutrition literacy in school-Malnutrition (ຄວາມສໍາຄັນຂອງຄວາມຮູ້ດ້ານໂພຊະນາການຢູ່ໃນໂຮງຮຽນ-ການຂາດໂພຊະນາການ)

- Trends of key indicators of malnutrition (ແນວໂນ້ງໃນການຂາດໂພຊະນາການໃນລາວ)



1. Importance of nutrition literacy in school-Malnutrition (ຄວາມສໍາຄັນຂອງຄວາມຮູ້ດ້ານໂພຊະນາການຢູ່ໃນໂຮງຮຽນ-ການຂາດໂພຊະນາການ)

Policy Note

Determinants of Child Malnutrition in the Lao PDR



Key Challenges

Persistent Stunting: Child malnutrition, especially stunting, remains high in Laos at 33%, with no change from 2017 to 2023.



Economic Impact: Malnutrition not only limits human potential but also undermines economic growth.

Nutrition Convergence Projects

The Government of the Lao PDR, with support from the World Bank, implements a multisectoral convergence approach to address nutrition and food security challenges. This enhances social assistance, livelihood options, childcare practices, and access to health services, while also improving clean water, sanitation, and hygiene.

Phase 1, from 2019 to 2024, focused on 12 districts in the four northern provinces with the highest levels of stunting: Huaphan, Oudomxay, Phongsaly, and Xieng Khuang. Report findings are drawn from survey data in this project area.

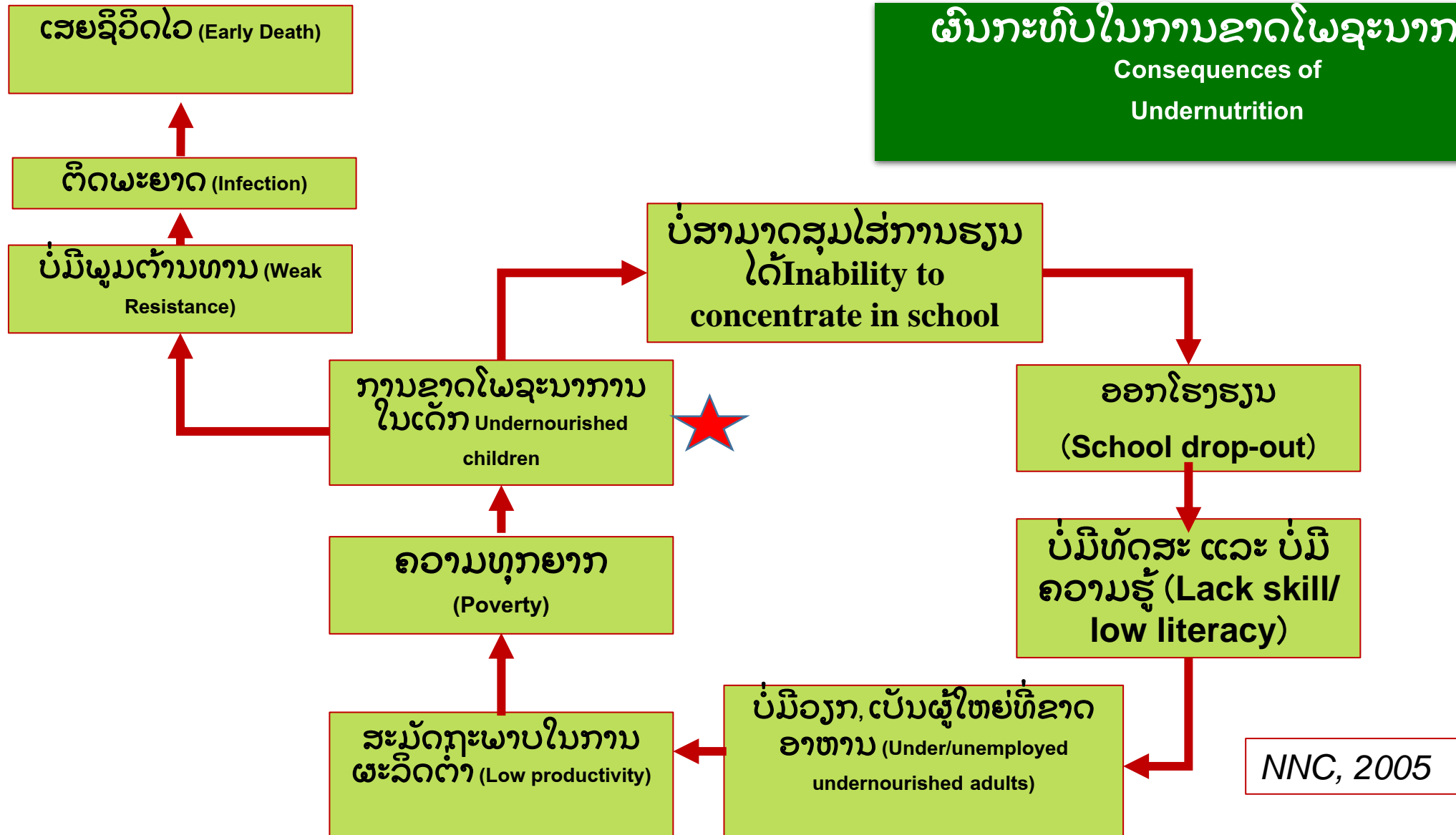
ບັນຫາໂພຊະນາການ (Some Nutrition Concerns):

- ບໍ່ສາມາດຄໍ້າປະກັນສະບຽງອາຫານ ແລະ ຄວາມຫຼາກຫຼາຍຂອງອາຫານ (Food Insecurity and Low dietary diversity)
- ການອັດອາຫານ (Skipping meals)
- ການເລືອກອາຫານບໍ່ດີ (Poor food choices)
- ອາຫານຫວ່າງບໍ່ດີ (Poor snacking behavior)
- ກິນອາຫານຕາມຄໍານິຍົມ (Adherence/practice of fad diets)
- ບໍ່ອອກກຳລັງກາຍ (Limited physical activity)

ການຂາດໂພຊະນາ (ຄວາມເຕັ້ຍ) ຍັງບໍ່ມີການປ່ຽນແປງໃນລາວ ແຕ່ 2017-2023: 33%

1. Importance of nutrition literacy in school

ຜົນກະທົບໃນການຂາດໂພຊະນາການ Consequences of Undernutrition



3. What is school garden (ສວນໂຮງຮຽນແມ່ນຫຍັງ)?

is beyond growing vegetables for distribution and consumption.

A school garden is a garden cultivated by students, teachers, or staff at a school. It can be a small plot of land, and it can be used for a variety of purpose like learning tools for better cognitive skills and behaviors change for sustainable agriculture and better nutrition

- ສວນໂຮງຮຽນແມ່ນມີຄວາມໝາຍຫຼາຍກວ່າການປູກຜັກ ເພື່ອຈຳໜ່າຍ ແລະ ບໍລິໂພກເທົ່ານັ້ນ
- ສວນໂຮງຮຽນແມ່ນ ສວນປູກຜັກຂອງນັກຮຽນ, ຄູອາຈານ, ຫຼື ພະນັກງານໃນໂຮງຮຽນ. ມັນສາມາດໃຊ້ດິນຕອນນ້ອຍນ້ອຍ, ແລະ ມັນສາມາດຖືກນຳໃຊ້ເພື່ອຈຸດປະສົງຫຼາຍຢ່າງ ເຊັ່ນ: ເຄື່ອງມືການຮຽນຮູ້ເພື່ອທັກສະທາງດ້ານສະຕິປັນຍາ ແລະ ການປ່ຽນແປງພຶດຕິກຳທີ່ດີຂຶ້ນເພື່ອກະສິກຳແບບຍືນຍົງ ແລະ ໂພຊະນາການທີ່ດີກວ່າ



ສວນໂຮງຮຽນ (CANTEEN project, 2023)

3. What is a School Garden?

- an **innovative teaching tool** incorporating hands-on activities in a diversity of interdisciplinary & standards-based lessons
- ເຄື່ອງມືການສອນທີ່ມີນະວັດຕະກຳທີ່ລວມເອົາກິດຈະກຳຂອງມືຢູ່ໃນຄວາມຫຼາກຫຼາຍຂອງບົດຮຽນແບບ interdisciplinary ແລະ ມາດຕະຖານ.

- provides a **dynamic environment** where students can observe, discover, experiment, nurture, and learn
- ສະຫນອງສະພາບແວດລ້ອມທີ່ມີການເຄື່ອນໄຫວທີ່ນັກຮຽນສາມາດສັງເກດ, ຄົ້ນພົບ, ທົດລອງ, ບຳລຸງລ້ຽງ, ແລະຮຽນຮູ້

- a **living laboratory** where students actively participate in the learning process & acquire real-life experiences
- ຫ້ອງທົດລອງທີ່ມີຊີວິດທີ່ນັກຮຽນມີສ່ວນຮ່ວມຢ່າງຈິງຈັງໃນຂະບວນການຮຽນຮູ້ ແລະໄດ້ຮັບປະສົບການຊີວິດຈິງ

- where students gain an understanding and appreciation of ecosystems, food origins and nutrition, and basic agricultural skills
- ບ່ອນທີ່ນັກຮຽນໄດ້ຮັບຄວາມເຂົ້າໃຈ ແລະ ການຍົກຍ້ອງຂອງລະບົບນິເວດ, ຕົ້ນກຳເນີດຂອງອາຫານ ແລະໂພຊະນາການ, ແລະທັກສະພື້ນຖານກະສິກຳ



School Gardening Techniques (ເຕັກນິກການເຮັດສວນຜັກໃນໂຮງຮຽນ)



Plot gardening
ບູກເປັນໜານ



Pot/Container Gardening
ບູກໃນຖ້ງ



Raised Bed Gardening ເຮັດ
ເປັນໜານຍົກພື້ນ

School Gardening Techniques (ເຕັກນິກການເຮັດສວນຜັກໃນໂຮງຮຽນ)

Hydroponic Gardening
ບູກຜັກ ໄຮໂຕໂບນິກ



Aeroponic Gardening



Vertical Gardening
ບູກຜັກລວງຕັ້ງ



Rooftop Gardening
ບູກຜັກເທິງຫຼັງຄາ





Post-learning activities

Summary and conclusion (ສັງລວມ ແລະ ສະຫຼຸບ)

- School is an extremely important entry point to improve health and nutrition ໂຮງຮຽນແມ່ນຈຸດເລີ່ມຕົ້ນທີ່ສໍາຄັນ ໃນການປັບປຸງ ສຸກຂະພາບ ແລະ ໂພຊະນາການ.
- Malnutrition in children is still persistent and it needs to focus on education and agriculture sectors ການຂາດໂພຊະນາການໃນເດັກນ້ອຍ ຍັງ ເປັນບັນຫາຊໍາເຮື້ອ ແລະ ຕ້ອງໄດ້ສຸມໃສ່ໜ້າວຽກສຶກສາ ແລະ ກະສິກໍາເພື່ອແກ້ໄຂບັນຫາດັ່ງກ່າວ
- School garden offers a great venue for experiential learning and nutrition education ສວນໂຮງຮຽນແມ່ນເປັນພື້ນທີ່ ທີ່ສໍາຄັນໃນການທົດ ວອງການສິດສອນ ແລະ ການສົ່ງຄວາມຮູ້ດ້ານໂພຊະນາການ.



Post quiz (test)

- This quiz is used to test the knowledge of students related to this lessons that they just finished learning. You can add 5-10 questions. Types of questions could be: MCQ, True or False, Matching, Fill in short words.

Questions	Possible answer	Correct Answer	Feedback
Q1: Why do we need school garden to promote nutrition?	A. School garden can be educational tools B. School garden provide good environment to learn C. School garden can provide nutrition for kids D. All corrects.	D	School garden is integrated approach which include nutrition, education and environment to improve knowledge, attitude and practice of nutrition for kids and adults
Q2: Child malnutrition is only thinness in children.	A. True B. False	False	There are many forms of malnutrition such as low or high nutritional status while micronutrient deficiency is another challenge.
Q3: Child malnutrition include wasting, underweight, stunting and overweight.	A. True B. False	True	In rural areas. Malnutrition of children showed in stunting, wasting and underweight while in urban and semi-urban areas, child overweight was increased
Q4: What is the consequences of malnutrition?	A. Inability to concentrate in school B. Lack of skill or low literacy C. Weak resistance and early death D. all corrects	D	Malnutrition is vicious circle of poverty and lead to low ability socio-economic adaptation and productivity

Assignment/Homework/Case study

Assignment

- Project team: create 4 teams (5-6 students/team) per group A, B, C, D
- Students needs to provide the ideas generation and selection of an school garden to produce foods in the context of their home town.

Reference

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Next lesson

- *This is the end of the lesson.*
- *Ending message and introduction to next lesson including lesson title and topics should be given.*

Next Lesson Title	<p>Next lesson Lesson 2: School garden benefits and its application ຜົນປະໂຫຍດຂອງສວນໂຮງຮຽນ ແລະ ການນຳໃຊ້ຂອງມັນ</p> <ol style="list-style-type: none">1. Benefits of school garden ຜົນປະໂຫຍດຂອງສວນໂຮງຮຽນ2. The school garden application for better nutrition ການນຳໃຊ້ສວນໂຮງຮຽນເພື່ອເຮັດໃຫ້ໂພຊະນາການດີຂຶ້ນ
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