



Food and Agriculture
Organization of the
United Nations



SOCIAL
AND INDUSTRIAL
FOODSERVICE
INSTITUTE



**SCHOOL GARDENS AND PLANTING TREES
FOR BRIGHTER MINDS AND BETTER DIETS**



Trees in the school environment – learning for better nutrition

Trees, especially nut, oil and fruits trees for instance, in the school environment, provide several benefits to the learning and can contribute to a diversified healthy diet and better nutrition.

Fruits, nuts and certain oils deliver important nutrients such as vitamins A, C, B, selenium, zinc, dietary fiber, complex sugars etc. for healthy, strong bodies and minds. Moreover, avocados and olives for example are good sources of mono and polyunsaturated oils, which are good for a healthy heart.

Therefore, building awareness and appreciation for trees is important, particularly among school-age children. Incorporating (fruit, nut and oil) trees into school gardens expands the knowledge of students

on how to make compost, how to graft fruit trees, and how to plant and care for trees.

During harvest time, pupils (and even teachers and a wider local community) can learn about proper picking, handling, processing and storage, preparation, serving and eating.

Around the world, there are several known processing and preservation techniques and methods that include drying, pickling, canning etc.

The benefits of trees go beyond just food security and nutrition. Environmentally, trees can act as windbreaks and shade while contributing to and improving local biodiversity.



School gardens in the learning environment

Children go to school to learn. But, what do they learn? Schools are recognized as not only places of formal education, but also as critical settings to foster health, development and overall well-being of pupils and their families.

School gardens can be defined as cultivated areas around or near schools, maintained (at least partly) and used by pupils and teachers in different manners.

Comprehensive models of action are currently being promoted, whereby schools can develop multiple-win situations and positive outcomes in learning performance, food security, nutrition, rural development, local economy and lifestyle practices and habits.

School gardens for learning about food and nutrition

Existing school gardens have a variety of traditional purposes and functions. Some are exclusively designed for food production, some aim at vocational agricultural and entrepreneurial training, and others are used as living laboratories, to teach children about science and the environment.

With the growing interest in food, food systems and nutrition, school gardens are now also being recognized as a platform for learning about these topics, and for enabling children (and their families and communities) to build healthy food-related practices, behaviors and attitudes.

In this area, school gardens have rich potential. For example, children (teachers and families) can:



learn how to grow a variety of fresh and nutritious foods, and how to improve their diets with home-grown foods;



see how these foods link with a healthy (and economical) diet;



taste new foods and learn basic skills in preparing fresh foods from the garden;



change their perceptions of the environment, ecosystems, nutrition and food waste;



develop team work skills and a sense of responsibility;



learn to value the work of their parents and other people on planting the fruits and vegetables.



enhance school meals with micronutrient-rich and fresh products;



set an example for families to produce fresh (and free) micronutrient-rich foods;



help to improve the dietary diversity of school rations;



promote horticultural skills in agriculture-dependent economies and foster entrepreneurial skills in the area of market gardening;



help students to develop ownership for improving their communities;



link students with local farmers (who can provide technical advice to the schools).

School gardens can also:



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Innovation has been thriving during the last years in response to new challenges and changing conditions. For example by introducing school gardens in refugee camps. Using urban agriculture techniques in schools with limited access to space and other inputs. Integrating learning objectives related to recycling, waste, and composting systems is another creative way. And most recently, by developing “farm to school” approaches which make the gardens one of their core elements, to engage children in hands-on learning experiences.

Challenges, needs and secrets of success

School gardens and school orchards (trees) do not succeed without a fair amount of attention and forethought.

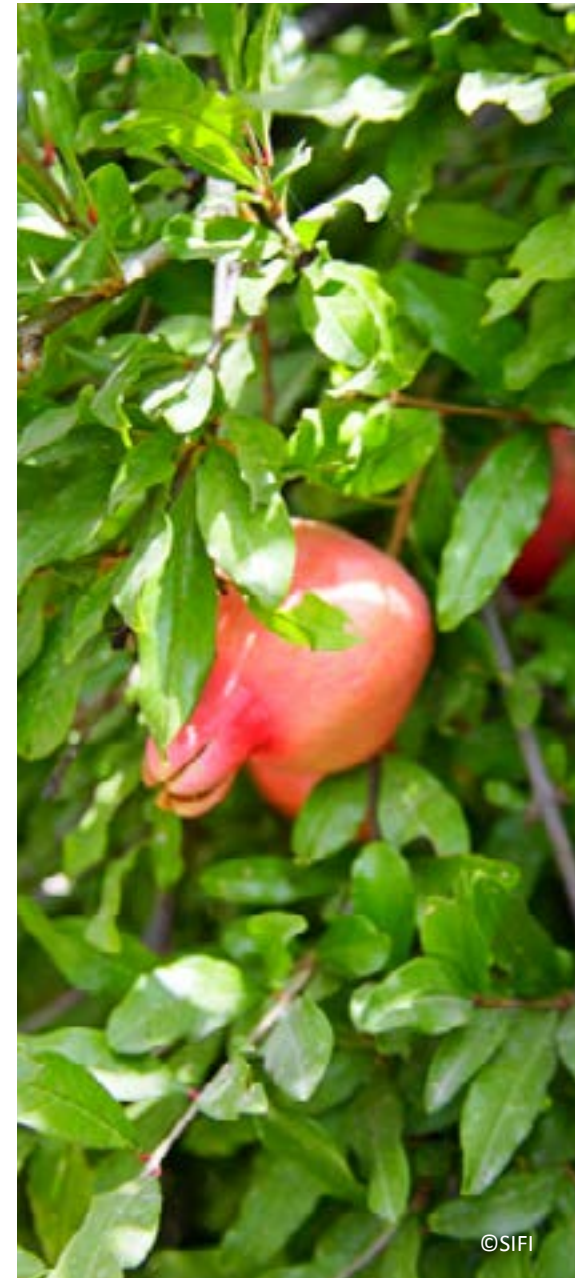
Many practical questions need to be discussed – What are the main goals of having school gardens and fruit trees in a particular school or community? What is the history and tradition? Are community attitudes positive? What will they cost in time and money? Do schools have the natural (land and water) and human resources needed? How much work will they take? Who will do it? Who will look after the garden during the holiday period? Will gardens be supported in the school curriculum? Will other subjects be supported by the garden?

What kind of support can schools look for from families and community? Will teachers be rewarded for the extra responsibility? Do teachers have the expertise and the interest? Are there professional development opportunities for teachers? What are the best foods to grow for nutrition / ease / taste / usability? Will it be possible to cook and eat produced food in school?

Above all, what kind of national scheme can be put in place, which will recognize the different situations of individual schools in resource-poor communities, encourage and reward those who establish school gardens, and help the gardens to become theatres of learning and enjoyment for all?



What is required for the success of a national school garden and school tree (orchard) programme?



1) A situation analysis, or a prolonged dialogue and consultation, which explores the previous history of gardens among schools, teachers, parents and children, and attitudes to them, school resources (e.g. land, water, tools), time commitments, interest, possible partnerships, etc.

2) A plan with clear objectives which define the programme's priorities and activities, and that consider the possible issues and opportunities associated with the distinct local contexts and the situations of the most vulnerable areas.

3) Defined linkages with food and nutrition education, learning competencies and school meal programmes.

4) A firm political commitment, and an educational plan which recognizes the garden's place in the national curriculum and its essential links with nutrition and food and nutrition education, school food and environmental education, and ties it to the national education standards.

5) Multi-disciplinary involvement, cooperation and support wherever possible: at the national level, from different ministries; locally, from organizations such as farmer groups, the private sector, nutrition associations, academia, NGOs and Farmer Field Schools; at the school and community level, from pupils, parents, teachers and other staff.

6) A minimum of infrastructure, fencing, equipment and agricultural inputs to be set up, delivered and maintained. Financial, human and other resources need to be guaranteed and budgeted for in the long term.

7) Practical training in hands-on, experiential learning techniques, as well as the development of basic agricultural and nutrition skills, for teachers, school staff and other involved actors (i.e. volunteers, community leaders, farmers, etc.).

8) Ongoing national coordination including online help, advice and encouragement, sharing of school experiences, and a well-thought-out monitoring and evaluation strategy to assess results, identify and correct issues and to find out what works.



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