

Nutrition from garden to plate

Improving dietary diversity and safe food consumption



For a world without hunger

Sweta Banerjee and Anshuman Das
Welthungerhilfe, 18th May 2021





- 4. Nutrition Sensitive Micro Planning (NSMP)
- 5. Strengthening Institutions

Nutrition Sensitive Micro Planning (NSMP)



Nutrition Camps

Education on LANN+

Natural Resources

Agriculture

Water, Sanitation & Hygiene (WASH)

Income Generation & market linkages

Nutrition Garden

Nutrition Smart CommUnity- Where no child sleeps hungry



Mothers of the
undernourished
children were
supported to grow
own gardens

Nutrition
Garden

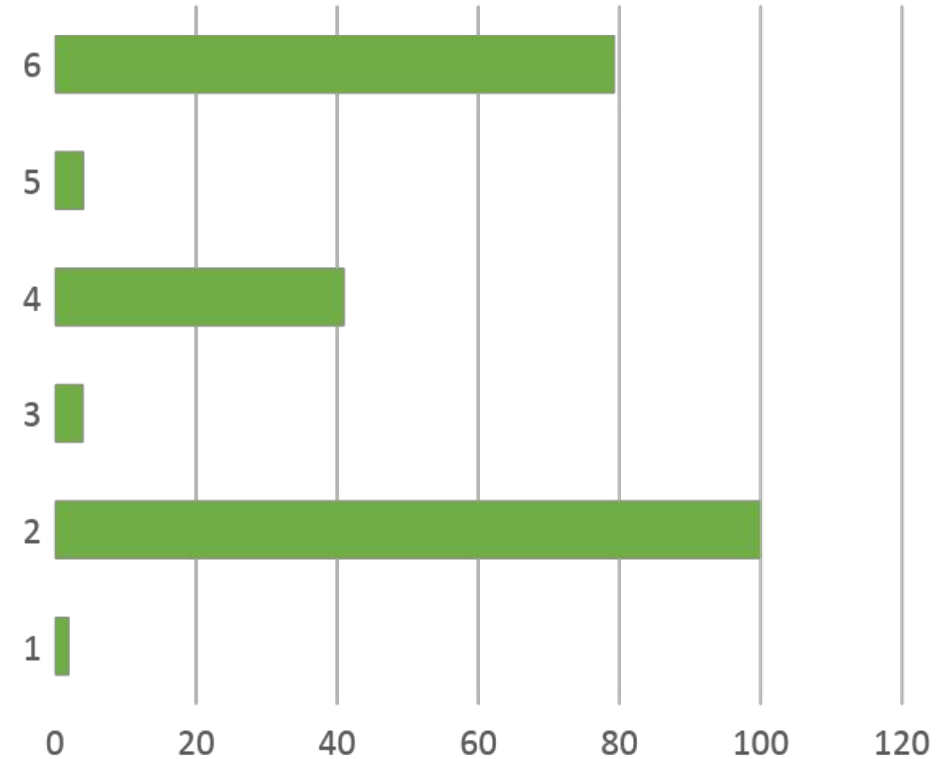
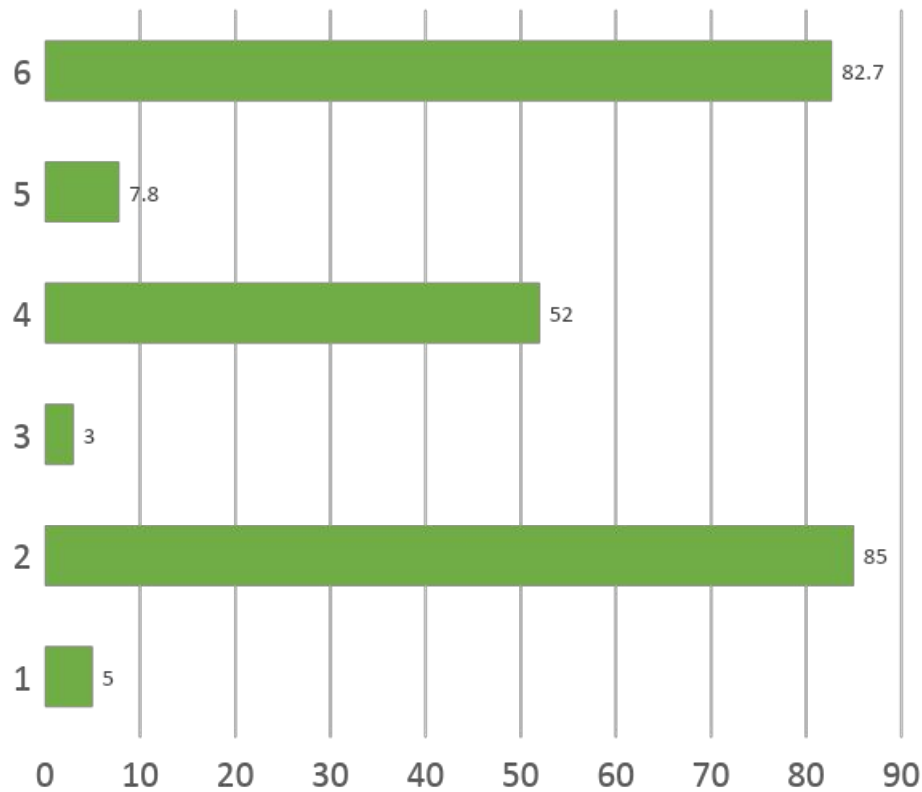
Why a Nutrition Garden?

- To improve the dietary diversity by producing all possible food groups
- The incidence of anemia and other micro-nutrient deficiency diseases are reasonably high in India
- Consumption of chemicals through vegetables procured from market or from commercial production is high
- Majority of rural India's food intake is starch-based
- Backyards and homesteads often remain fallow and household wastes are not properly utilized

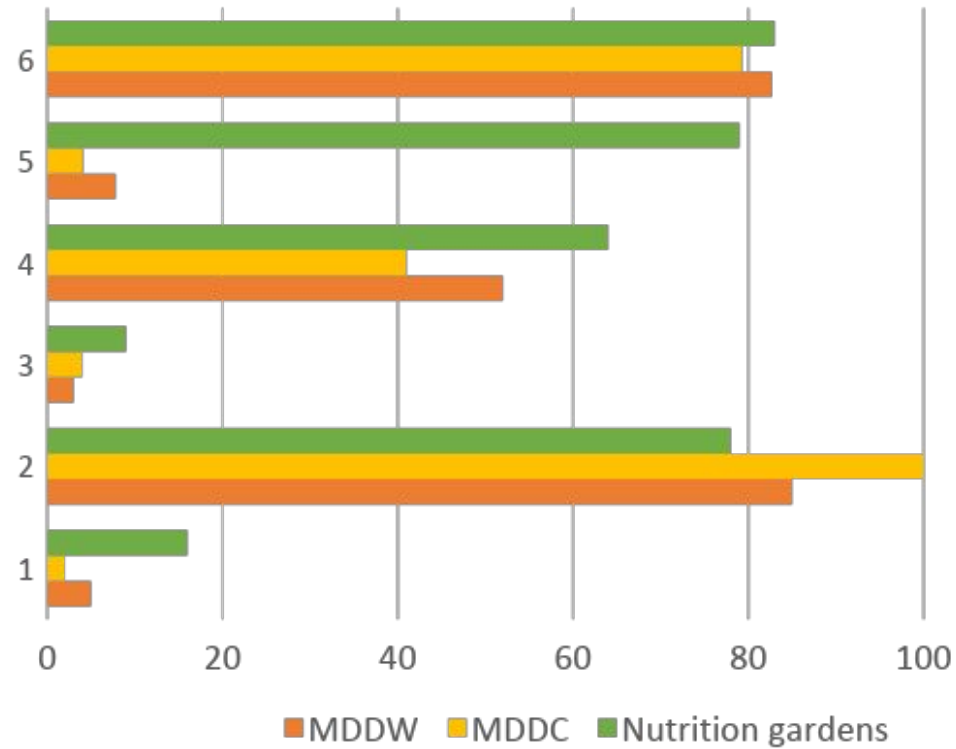
What is a Nutrition Garden?

- Utilizes front or backyard space around the living space to grow maximum number of food groups
- It is also possible to integrate backyard poultry and goat rearing for better nutrient availability and soil, kitchen and income enhancement
- The aim is to ensure that all family members, especially women & children, consume at least 150-200gm of green vegetables or fresh fruits per day year-round and achieve dietary diversity

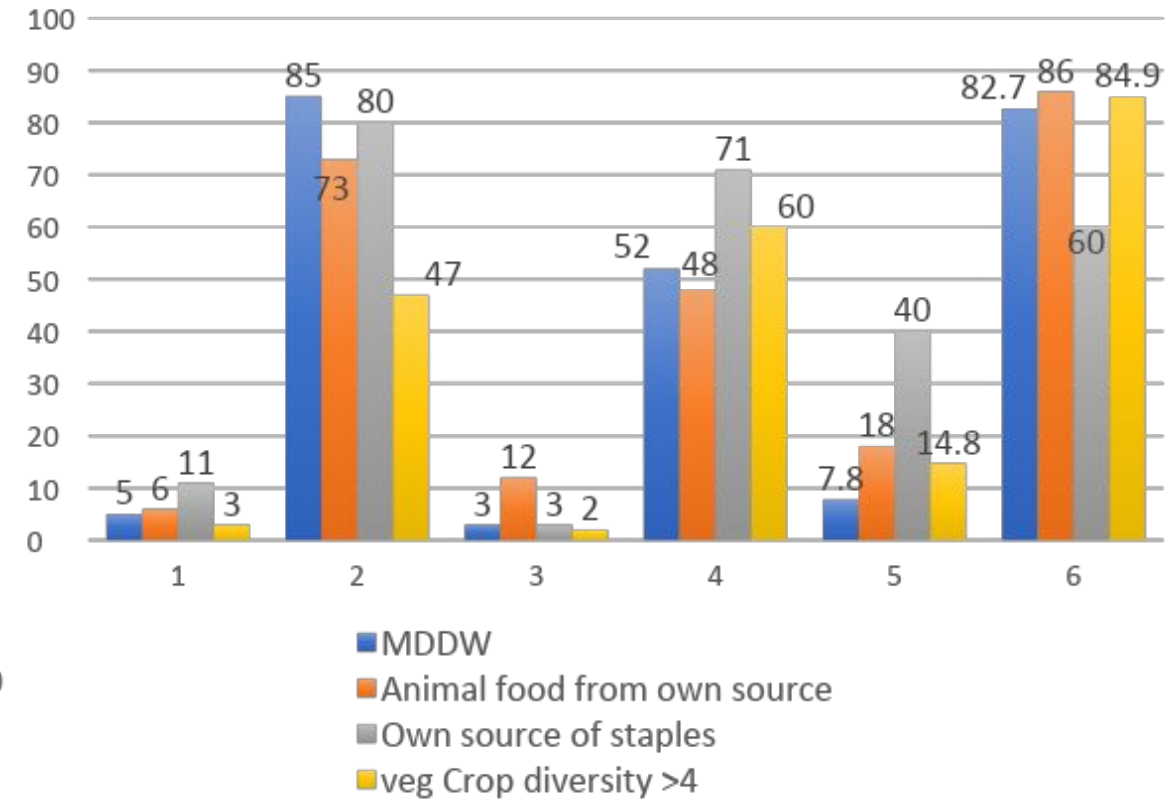
What we achieved in 2 years



Nutrition garden vs dietary diversity



Production vs Consumption





What Worked

- Engagement of women as owners of the nutrition gardens
- Cooking demonstration of low-cost recipes with locally available foods
- Promotion of uncultivated foods and traditional recipes
- Growth monitoring of children
- Skill training on garden techniques
- Linkage with government schemes- employment, agriculture, irrigation, fisheries, animal husbandry, horticulture, etc.
- Development of cadre of champions from the village



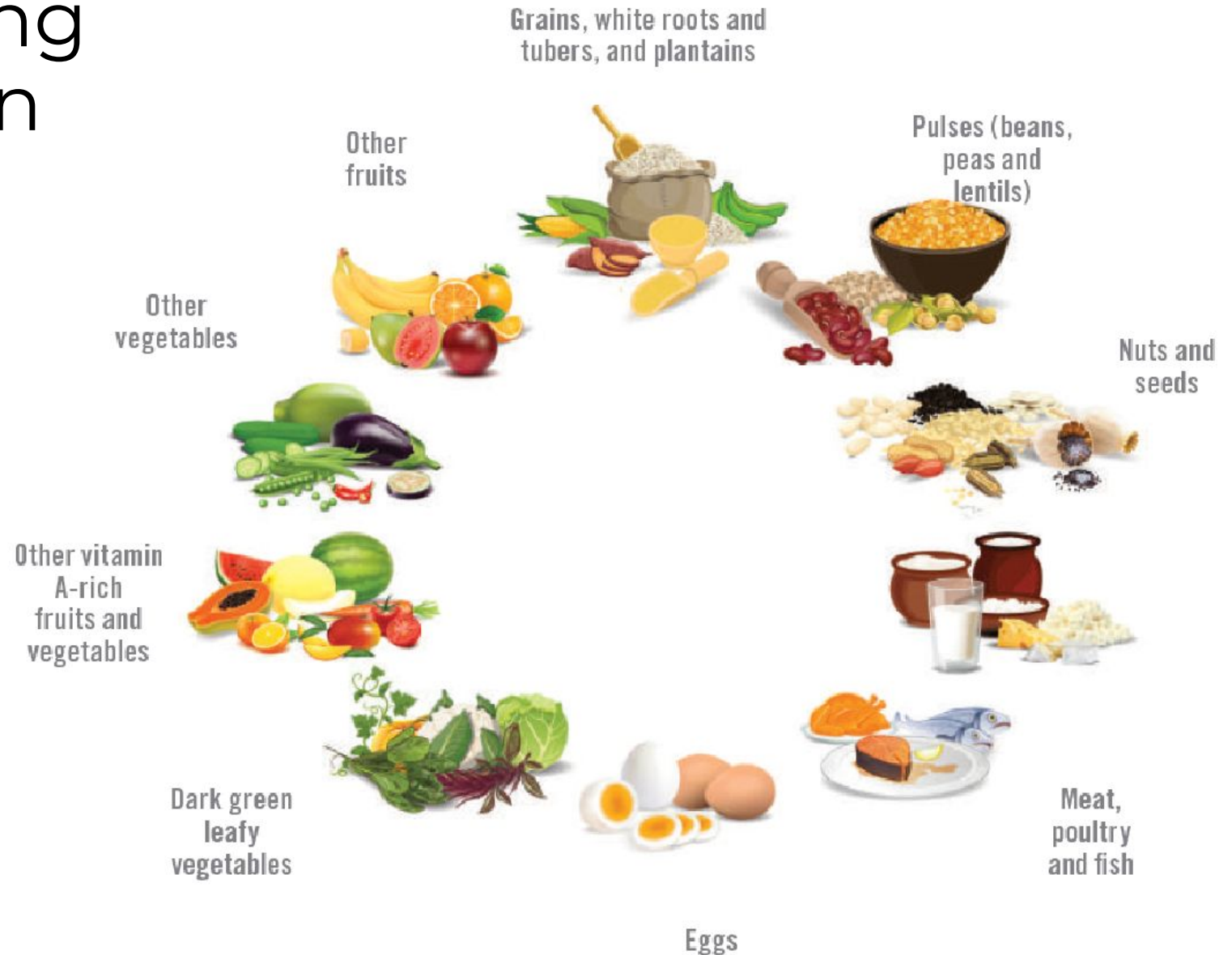
How to grow nutrition garden

A nutrition garden should have

- Fruits, leafy vegetables, legumes, tuber crops, spices and some medicinal herbs
- Poultry and livestock
- Own seeds, own inputs
- Recycling of household waste and water

Planning, keeping 10 food groups in mind

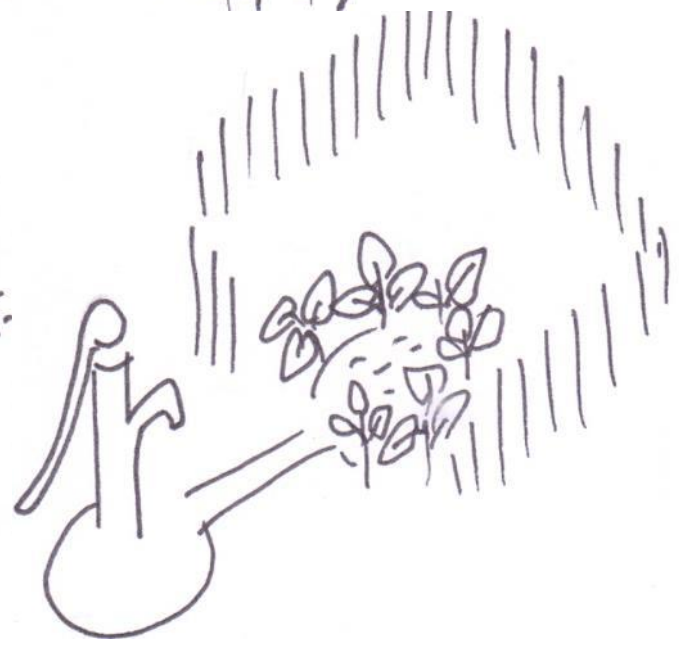
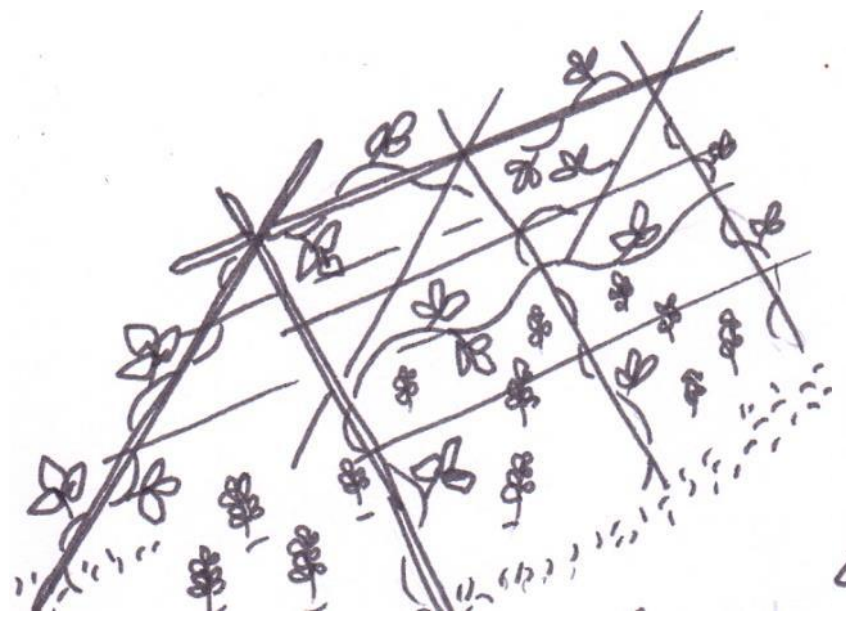
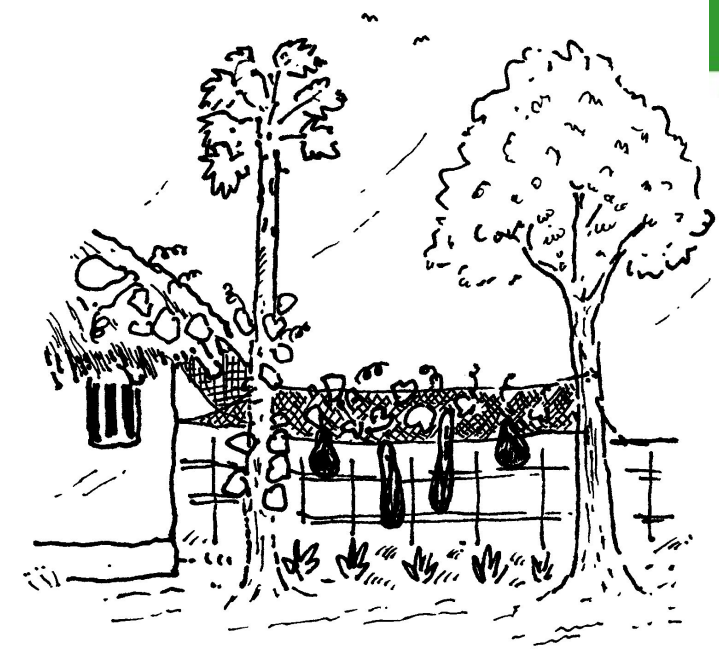
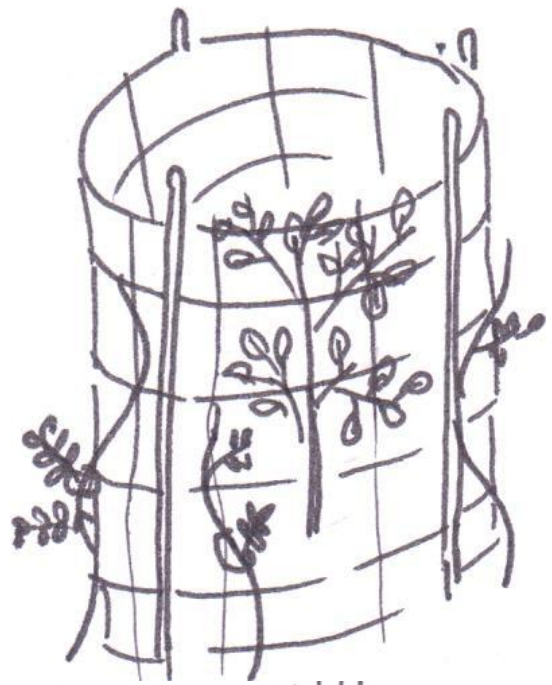
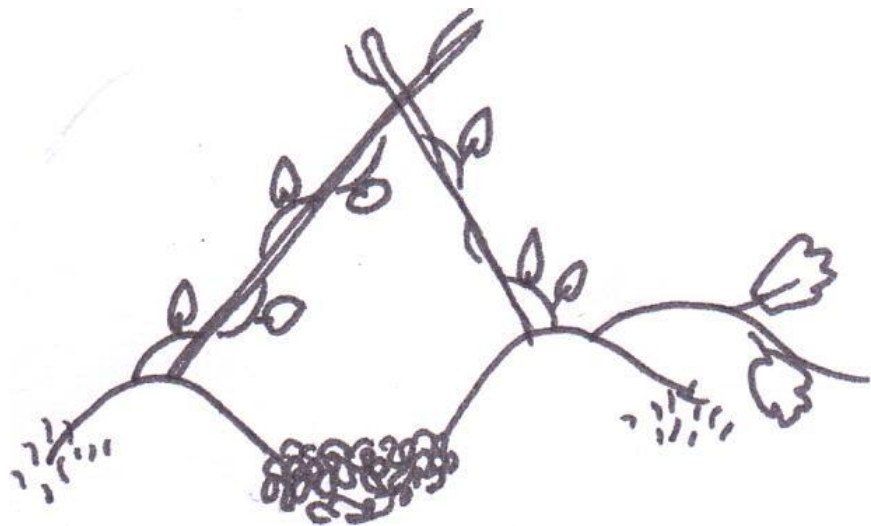
- Map resources and gaps in food groups
- Plan on what can you do to fill up the gaps
- Plan is a seasonal calendar: what to grow, when to grow
- We found learning technology is not difficult, planning is the key skill to develop a good garden

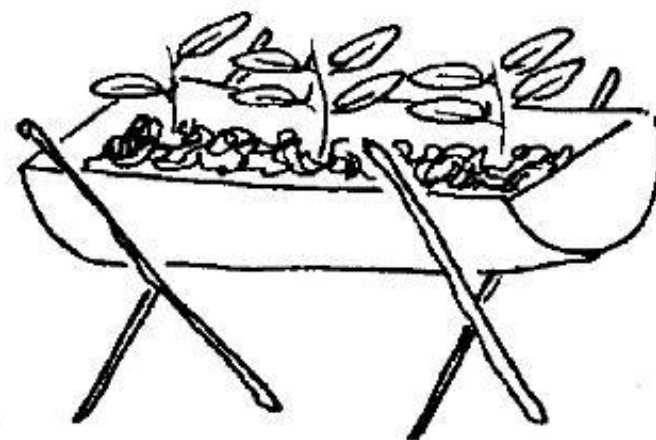
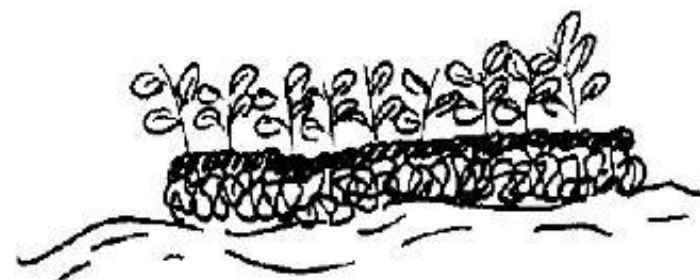
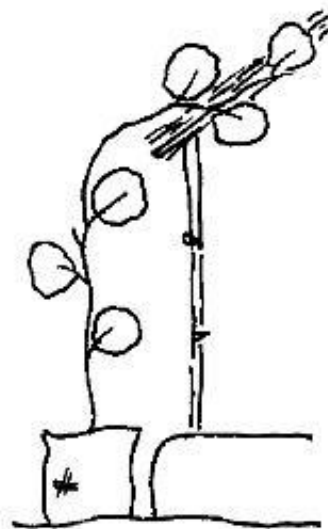
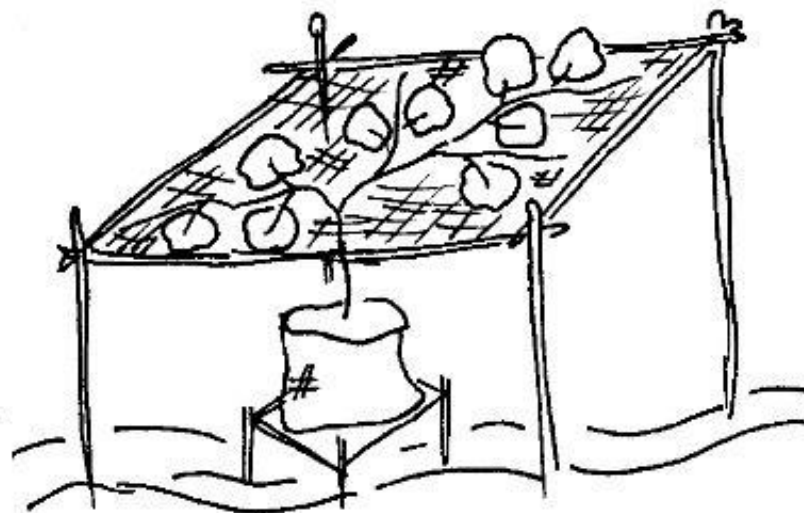
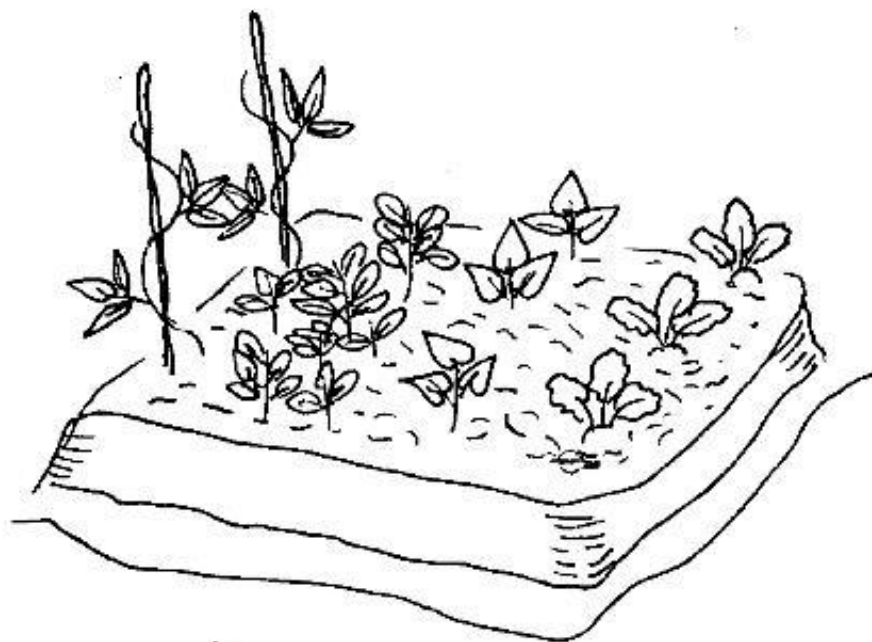


Crop Management

- Plants are arranged shortest towards eastern end and tallest towards western end to optimally use sunlight
- Crops of different families are grown together through intercrops, relay crops, or mixed crops for optimum utilization of space, time and nutrients









Including trees

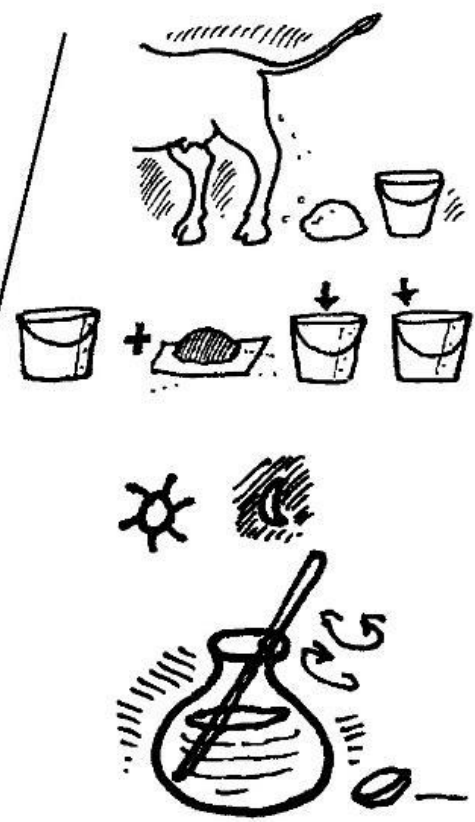
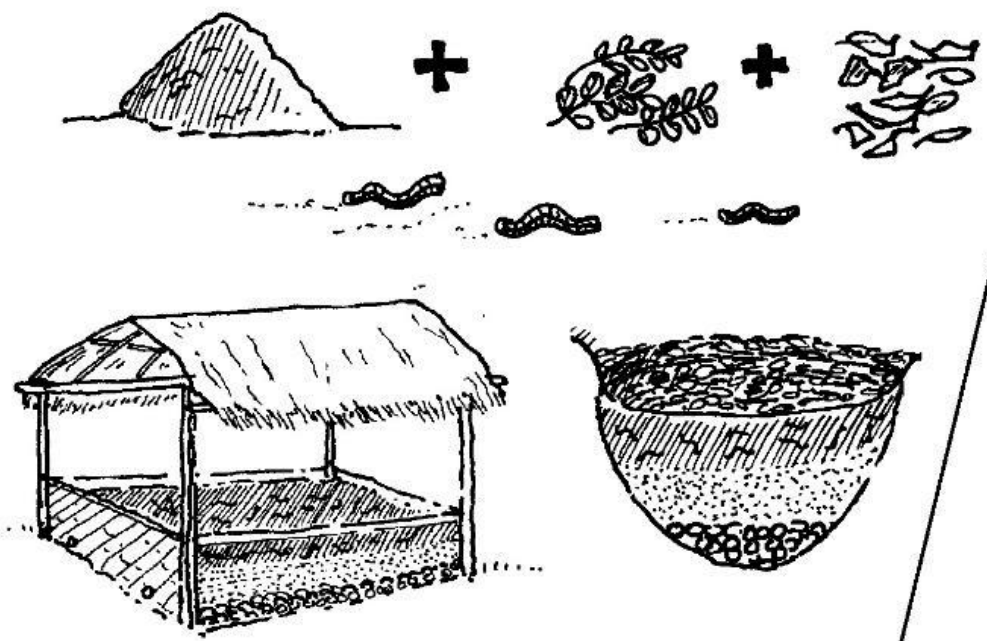
- Fruit trees can be integrated into as source of nutrition
- Papaya, moringa, banana and citrus fruits are some examples which can give food throughout the year, even if in stress period



Producing own manure and pest repellent

Fertilizer can be produced (through vermicomposting, liquid manure with locally available weeds, or chicken and goat manure) to improve soil health, reduce cost of production and achieve poison-free food

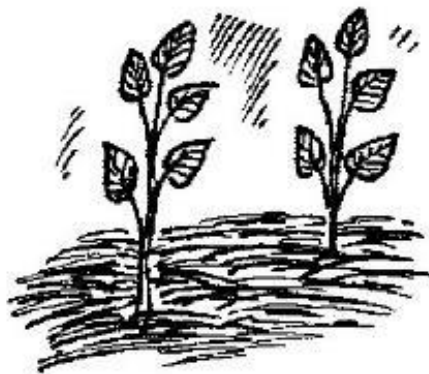
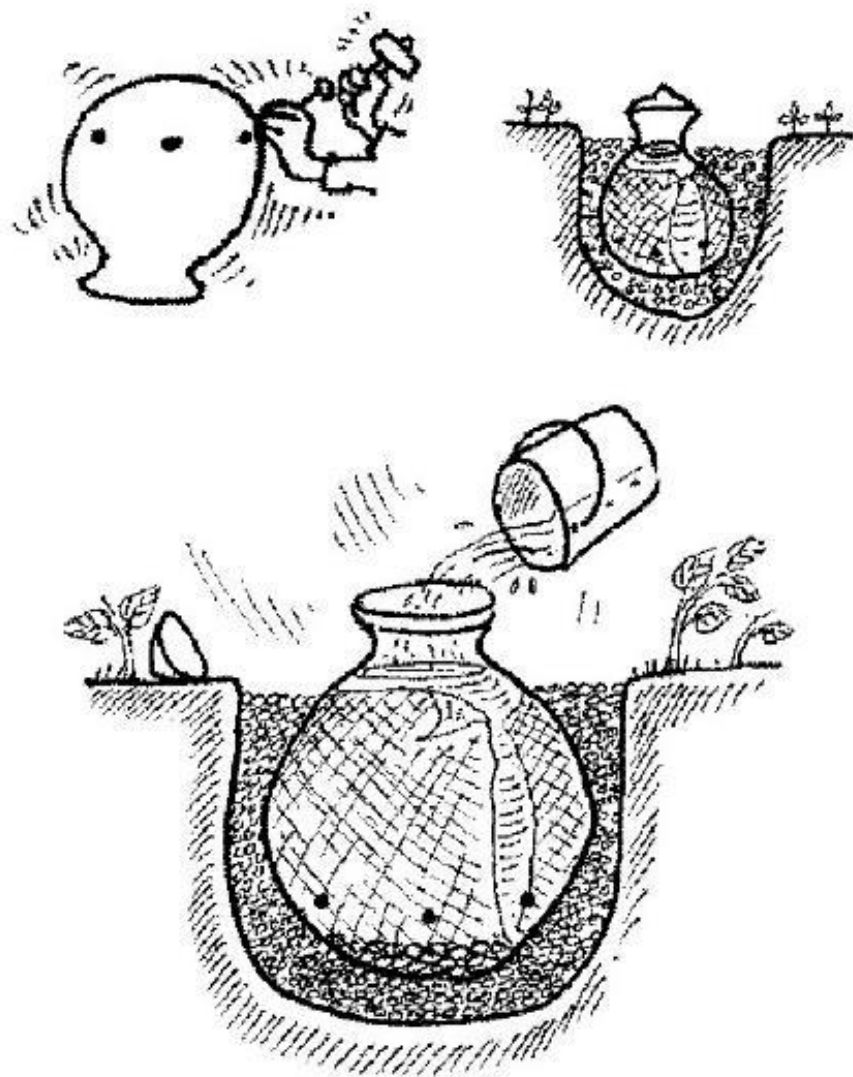
Gardener should produce own pest repellent with locally available materials like ginger, chili, wood ash, neem leaves etc.



Water management

- Wastewater and kitchen waste to be used
- Can also use drip irrigation, pitcher irrigation
- Mulching
- Selection of crops plays an important role

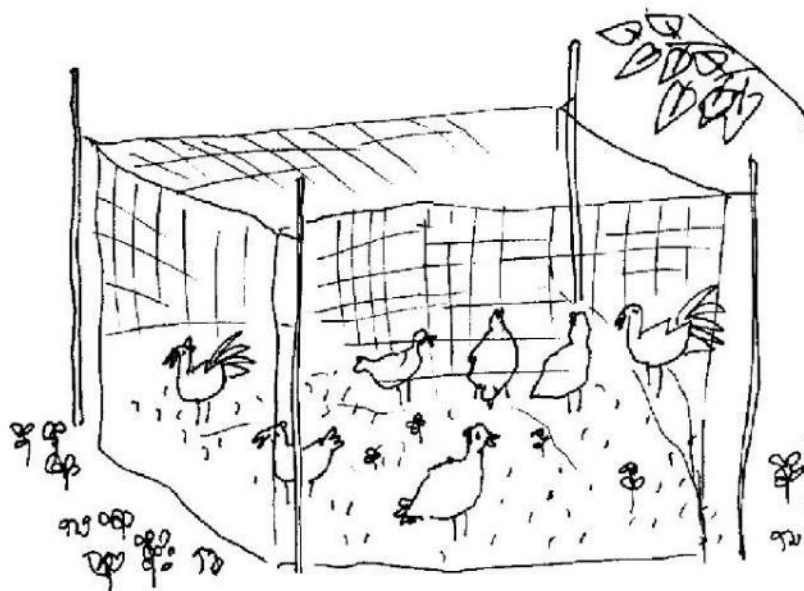
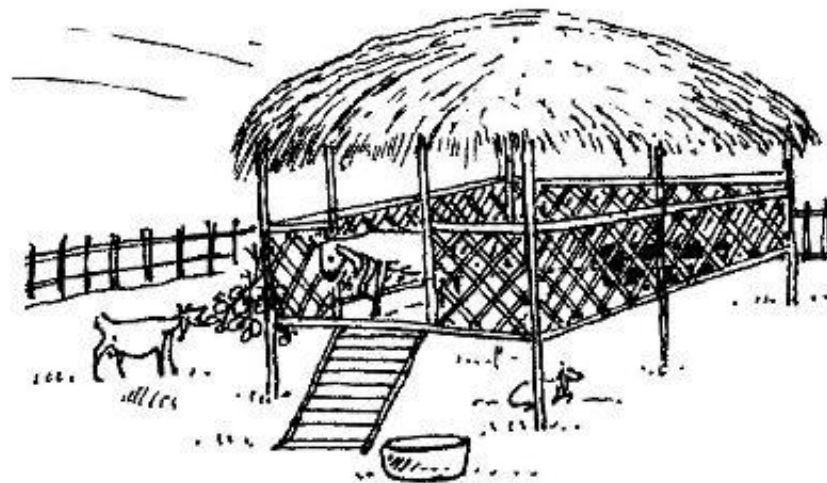
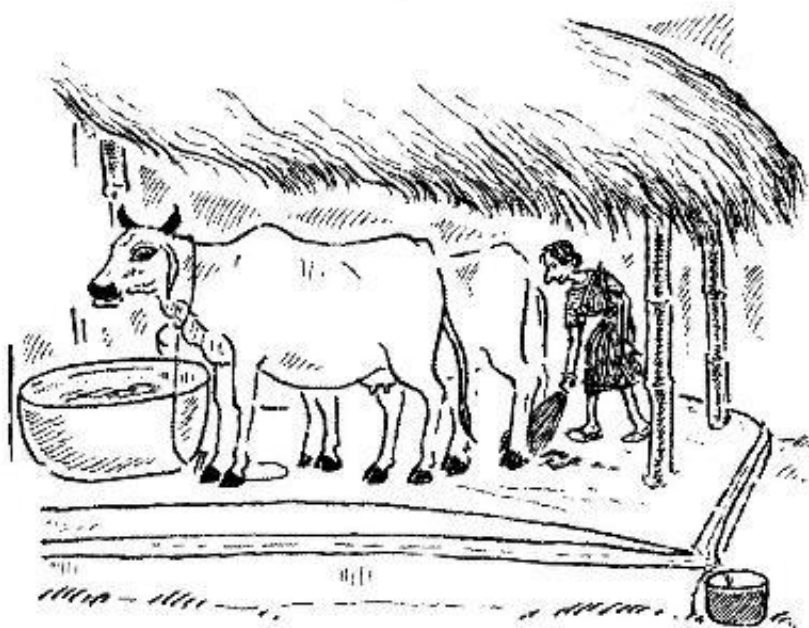




Integrating poultry and livestock

- To improve nutrition, enhance income and attain manure: integrate duck, hen, goat with the garden
- Azolla can be cultivated as fodder
- Some even tried out Kitchen-fishery
- Possible to include bee-keeping, mushroom cultivation





In a nutshell

Crop Management

Multi layer cropping

Sack garden

Kite garden

Floating garden

Rhizome basket

Community vegetable garden

Pest & disease management

Bio pesticide preparation

Livestock management

Cow urine collection and maintenance of cow shed

Poultry farming

Azolla pit

Goat/ pig farming

Soil & water management

Reuse yellow water from hand pumps

Drip irrigation

Keyhole garden

Liquid Manure

Vermicompost

Composting

community vegetable nursery.

Post harvest

Zero energy cool chamber

Food processing

Manuals



Thank you

Welthungerhilfe India & Bangladesh Country Office

Thank you for joining!

isdc.org/projects/hg4rr

Join our mailing list!

Send your name, country, and organization to:

moiles@igzev.de

Gardening under
challenging
conditions:
Concern's
experience in Niger
and Bangladesh

15 June

14:00-15:00 CET