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# Transformation of Barren Terrace to A Lively Organic Roof Top Vegetable Garden – A Woman Farmer Success Story

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**Name of the Farmer and Address:** Tmt. S. Boopathiammal, Komarapalayam, Pallipalayam Block, Namakkal, Tamil Nadu, India

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## Abstract

Rooftop vegetable farming can help to meet food demand by supplying fresh and hygienic vegetables, reducing household expenditure for buying vegetable, creating healthy atmosphere by improving air quality and absorbing carbon from air and lessening the impact of climate change. The present case was documented for Roof Top Vegetable Garden adopted by a farm woman under the technical guidance of KVK, Namakkal at Komarapalayam of Namakkal District, Tamil Nadu. She saved Rs. 50.00 daily towards purchase of vegetables. Totally she saved Rs. 1500.00 / month and through sale of excess vegetables.

## Background Information

The roof garden is a garden on the roof. If vegetables are allowed to grow on the roof in place of other ornamental plants then it is called roof top vegetable garden. In addition growing vegetable on roof top reduces the expenditure on purchase of vegetable from the market. It also provides minerals rich good quality fresh organic vegetable free from chemical, thus contributing to nutritional security. Tmt. S. Boopathiammal, KVK, Namakkal beneficiary farm woman from Tiruchengode has started organic Roof Top Vegetable Garden (RTG) unit in an area of 1 cent in her terrace during 2019-20 with the technical guidance of KVK, Namakkal with the following objectives.

- Enabling consumption of pesticide-free,
- Healthy green and fresh vegetables,
- Better utilization of space, time, environmental sanitation, and
- Recycling of house hold wastage *etc*.

## Institutional Involvement/ Intervention

Tmt. S. Boopathiammal has attended paid training programme on Organic Roof Top Vegetable garden during December 2018 at KVK, Namakkal. After attaining the technical knowledge, she started it with a few bags of greens on her roof top and slowly extended to few veggies like Tomato, Brinjal, Chilli, Bitter gourd, Ribbed gourd, Snake gourd, Annual moringa, Sundaikai, Chekkurmanis, Bhendi, Radish, Banana, Papaya and some medicinal plants with 120 containers. She used plastic bucket, grow bags and also paint can to grow vegetables and fruits. She makes her own compost from kitchen & plant waste and produced vermicompost. Applied neem cake and foliar spray of neem oil was done to manage pest and disease problem.

KVK, Namakkal also provided frequent crop advisory relevant to growing media preparation, organic way of pest and disease management and compost preparation from household waste. Frequent field visits were also made to observe the growth performance of vegetables.

## Special Innovation

She used less weight growing media *viz*., Vermicompost, Well decomposed coir pith, Bio-fertilizers, Bio-fungicides, Neem cake along with native soil for growing of vegetables in a container. In addition to that she decomposes the vegetable waste and dried plants to organic compost by using earthworm and waste decomposer. She continuously get the compost and used as the growing media for year round cultivation of organic vegetables in the roof top. Apart from that she used to spray Neem oil and Panchakavya for pest control.

## Success Point/ Results

Daily she harvests 1.5 kg of vegetables and greens from her garden. Used 750 gm of vegetables for her family consisting of 3 members and sells the remaining 750 gm vegetables to her neighbours at a minimum price @ Rs. 25.00-30.00 / 0.75 kg. Got income of Rs. 2,000.00 month through sale of vegetables and cost saving through purchase of vegetables. This is in conformity with the findings of Vikash Kumar *et al.* (2019). She also likes to share her knowledge on Roof Top Vegetable garden with people around her.

Table 1: Yield obtained from some of the vegetables growing on the roof top

| Sl. No. | Crop | Yield |
|---|---|---|
| 1 | Tomato | 10-13.5 kg/Season |
| 2 | Brinjal | 6-8.2 kg |
| 3 | Chilli | 3.5-4 kg |
| 4 | Bhendi | 5.4-6 kg |
| 5 | Cucurbits (Snake gourd, Bitter gourd & Ribbed gourd) | 15-23.2 kg |
| 6 | Greens | 42-50 bundles |
| 7 | Fruits (Banana & Papaya) | Banana: 1 bunch with 5 hands/year<br>Papaya: 25-32 fruits/ year |

## Outcome/ Extension Aspects

She produced pesticide and inorganic fertilizer free vegetables, greens and fruits in a limited space area. In addition to that Rooftop vegetable farming can help to meet food demand by supplying fresh and hygienic vegetables, reducing household expenditure for buying vegetable and creating healthy atmosphere by improving air quality. She saved Rs. 50.00 daily towards purchase of vegetables. Totally she saved Rs. 1,500.00 / month and through sale of excess vegetable. She earned Rs. 750.00-900.00 / month.


Figure 1: Roof Top Vegetable Garden established by Mrs. Boopathiammal

Figure 2: Daily maintenance of RTG unit

Figure 3: Harvested organic Brinjal, Ribbed gourd, Chilli, Bhendi and Greens from RTG unit

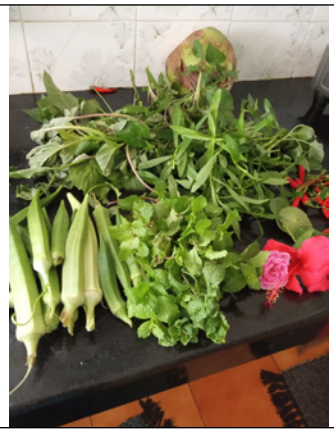

Figure 4: Harvested Mint, Ponnakanni Keerai and Bhendi from RTG

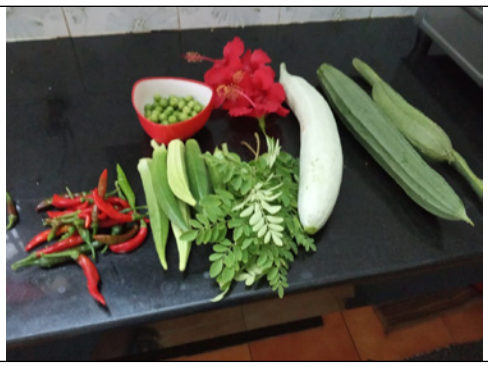

Figure 5: Harvested Moringa greens, Pod, Snake gourd, Chilli, Ribbed gourd and Sundaikkai/ Turkey berry from RTG

## Conclusion

She acts as a resource person to provide technical consultancy to nearby household persons, school teachers and school children regarding RTG. So far 17 RTG units developed under the technical consultancy of Tmt. Boopathiammal.

## Reference

Kumar, V., Ansari, M.T., Ramjan, M., Thejangulie, A., Kripa, S., 2019. Rooftop vegetable garden- A new concept of urban agriculture. *Agriculture & Food e-Newsletter* 1(4), 109-112.