ICAR-Central Institute for Women in Agriculture, Bhubaneswar

Name of Technique	Brief Description	Photographs
Gender-Friendly Horticulture Cropping Models	Horticulture cropping models (multi-storey, 6-F, intercropping and resource-efficient) offers viable alternatives to the conventional mono-cropping method to boost profitability. Establishes a self-sustainable system that harnesses solar energy at various elevations and results efficient use of soil resources. Serves as a practical choice to mitigate the risk of crop failure caused by unpredictable weather conditions. Provides sustenance to farmers and generate significant economic returns, even in unfavorable agro-ecological circumstances. These models enhance cropping intensity for increased agricultural productivity. Serves as a valuable source of mineral nutrients to fortify household nutritional security. Generates valuable by-products like fodder and fuel wood through annual pruning, in addition to yielding fruits. The mango-pineapple intercropping is a sustainable model as pineapple is a rainfed, shade-loving crop and requires minimal maintenance. In one hectare mango plantation, 20,000 pineapple suckers can be planted, generating a fruit yield of 14-14.5 t/ha with a gross additional income of about ₹ 6.00 lakhs per ha/ cropping cycle.	

	Banana + cowpea intercropping generated maximum bunch weight, with improved productivity and enhanced soil fertility. Maximum gross additional income was obtained from elephant foot yam (₹ 4.00 lakhs per ha/ year, followed by cowpea (₹ 1.20 lakhs per ha/year). Among the intercrops, lemon + cowpea resulted in maximum fruit yield per ha (5.83 t/ha). Highest economic profit in terms of gross additional income was obtained from lemon + French bean (₹ 3.15 lakhs per ha/year) followed by lemon + colocasia (₹ 1.25 lakhs per ha/year). In guava intercropping model, guava plants (cv. Allhabad Safeda, Arka Mridula and L-49) planted at a spacing of 5 m x 5 m can be intercropped with crops such as okra, cowpea, turmeric and pineapple. Among all combinations, guava + pineapple was found most profitable with a gross additional income of ₹ 5.50 lakhs per ha/ year. The model focuses on increase crop productivity and profitability with increased resource use efficiency through integration of meadow orcharding of guava, high density planting of banana, papaya and lemon with pineapple, green leafy vegetables, roots and tuber crops and other seasonal vegetables. The model can be implemented in an area of 1660 m^2, generating a Benefit Cost Ratio (BCR) of 2.94 in one year.	