

Adding \$100 a Year to the Cash Income of the World's Poorest Families

Paul Polak 10/7/99

Introduction

Development planners have always expected small poor farmers to focus on growing subsistence crops instead of producing for the market. By earning \$130 million dollars a year in new income from horticultural crops, a million one-acre farmers with Treadle Pumps in Bangladesh have amply demonstrated that they can do much better by growing for the market, than by just focusing on subsistence crops. With the advent of five-dollar market garden drip kits, it now becomes possible for the majority of poor people in the world to generate cash income by growing high-income horticultural crops.

Well over three-quarters of the one billion poor people in the world to-day have access to a small patch of land next to their house. A small 40 square meter piece of land, which is about equivalent to the floor space of an ordinary school bus, may not sound like much, but it is enough to generate a hundred dollars a year in new net cash income. A hundred dollars additional income would increase their annual cash income by 50%. Poor families can accomplish this by harnessing the methods of modern horticulture on their micro-plots to grow a carefully selected mixture of high value cash crops.

The Case of Mrs. Paware

Mrs. Sitabai Paware lives with her husband, an agricultural laborer, in a meager two room thatched roof dwelling in a tribal village in Maharashtra, India. Between them, they earn two hundred dollars in cash income a year on which they survive along with their twelve-year old son and their two daughters aged 9 and 11. Mrs. Paware has always grown one squash vine on the roof of her house and one papaya tree out back to help feed her family. Last year, Mrs. Paware used a loan from a village grass roots organization to invest twenty-five dollars in a home horticulture kit.

First, she built a brush fence around 45 square meters of land behind her home to keep the animals out. Following the picture guides instruction booklets in the kit, she opened seed packages and planted ten papaya trees, 4 squash vines to grow on the roof, ten bitter gourd vines for the fence, a variety of vegetables, and three species of medicinal herbs. All of these were watered by a small gravity flow drip kit using two buckets of water a day that she and her daughters carried from the community well 250 meters away. Finally, she added some water-soluble fertilizer to her crop on three separate occasions to supplement applications of natural fertilizer. In the first year, she earned \$60 after expenses from the papaya trees, \$30 from squash and bitter gourd vines, \$15 from selling herbs, and \$10 from the sale of vegetables, in addition to improving her family's diet.

Steps for Implementation

Most of the one billion poor people in the world can improve their income and diet just like Mrs. Paware. To make this possible, the following practical steps need to be taken:

1. **Design an attractive, off-the-shelf home horticulture money making kit**, packed inside a space age looking plastic container that acts as the gravity flow vessel for the drip kit. Color pictures and diagrams on the outside of the package will provide an introductory course on high-income horticulture for poor families.
2. **Inside each package, place:**
 - 1) a simple 40 square meter drip irrigation kit
 - 2) several small packages of high quality vegetable and horticultural seeds
 - 3) a bottle of water soluble fertilizer to distribute through the drip kit
 - 4) easy to understand booklets providing pictorial information on
 - how to install and operate the drip kit
 - how to grow vegetables for persons who have never done it
 - location specific information on high value horticultural crops
 - how to market the crop
3. **Activate a global network** of private sector firms, development organizations, development donors to participate in producing, marketing, and mass disseminating income generating horticulture packages for poor families.
4. **Develop and implement an effective global mass marketing strategy**
5. **Design and activate an international private sector company** to enter into joint ventures in each country to produce, distribute, and market the packages.
6. **Develop an effective information-gathering infrastructure** for identifying key high income generating crops that fit specific agro-climatic conditions, and critical information about their effective cultivation.
7. **Translate and publish key information into a simple pictorial format** that can be understood and used by people who don't know how to read
8. **Produce parallel complete information packages** for horticulture kits going to collaborating organizations, or village participants who can read.

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