

Water for Food Presentation, The Hague, Mar 17/00- Paul Polak

Six months ago, I walked through an exhibition hall in Orlando Florida that about 500 times the size of this auditorium and was filled with the most advanced irrigation equipment in the world. As I wandered through this exhibition hall, I was filled with a curious mixture of awe, and sadness. Awe at the remarkable array of advanced technology and the cutting edge science that made it possible, and sadness at the fact that all of it had no relevance at all to the majority of the world's farmers.

Three quarters of the farmers in the world cultivate less than five acres. A typical farm family in Bangladesh to-day cultivates one half of a hectare of land in five separate quarter acre plots, and earns three hundred dollars. For such a farm family, modern irrigation technology is far too expensive to be affordable, and far too big to have any relevance for his 1000 square meter plots. Yet it is exactly these farmers who hold the key to the achievement of the water for food vision we have been talking about to-day.

25 years ago, the only computers available in the world were as big as a house and so expensive that only a few of the world's universities could afford to buy one. It was at this point that two characters named Jobs and Wosniak went to work in a garage, and produced a computer small enough to fit on a student's desk, and cheap enough to be affordable to hundreds of millions of people.

To make the vision about water we have been talking about to-day a reality, we need exactly the same kind of revolution in affordability and size for irrigation technology, as was accomplished by the creation of the revolutionary new market for personal computers. This can be accomplished, not by further advances in irrigation high technology, but by the creative combination existing off the shelf pieces of irrigation equipment into affordable packages that fit small plots. This is not only possible. It has already begun to happen.

But a third lethal constraint remains.

90 percent of the current 260 million or so irrigated acres in the world apply water to fields in obscenely wasteful surface methods that have remained unchanged for a thousand years. Yet drip irrigation, represents only 1% of global irrigated acreage. To achieve the water for food vision, the proportion of irrigation under affordable small plot precision methods must be made at least ten times as big as it is now.

But the revolution in irrigation technology is only the tip of the iceberg. The small poor farmers of the world are first and foremost, entrepreneurs with a remarkable capacity for surviving, under conditions where the dice are loaded against them. The growth in global population and the exponential increases in regional water scarcity so convincingly described in the water vision, create, not only new problems, they also create new market opportunities for small farmer entrepreneurs. It is by capitalizing on the new market opportunities created by growth in population and water scarcity, that the vision of water for food can be transformed from a dream to a reality.