a living room, two kitchens, bathrooms, and two bedrooms for parents and children, surrounded by a small garden.

Being in the middle of the desert, Ramadan City has to offer numerous additional incentives for people to leave the big towns. The new city planning council is offering to industries a 10-year period tax-free, and a subsequent 10-year period during which they are not required to pay customs duties on their imports. To individuals two kind of incentives are offered: 3 percent, 30-year mortgages to buy an apartment or house, and wages which are often two or three times higher than anywhere else in the rest of the country.

Ramadan City is now a large oasis in the middle of the desert, but if the challenge is met, what is now sand and desert will become green with fruit trees like the ones surrounding the city. The effort is well on its way to success.

The El Salhia land reclamation project

by Criton Zoakos

Traveling on the Cairo-Ismailia Highway, one is engulfed by vast unbroken stretches of yellow sand dunes which make up the forbidding Eastern Desert. As one approaches the 8-kilometer mark, one is suddenly engulfed inside a striking green landscape of lush vegetation: it is the El Salhia land reclamation project, one of many now emerging in the deserts of New Egypt. Fifty-six thousand acres of green cultivation have emerged in El Salhia, where only desert could be found two years ago. The landscape is dominated by the impressive silhouettes of pivot-irrigation pipes, each half a kilometer long, standing four meters above the ground and, carried on their tractor wheels, slowly revolving around their pivots, irrigating the soil.

El Salhia is a fully mechanized farm divided into five projects. It employs two irrigation systems: pivot irrigation for its legumes and drip irrigation for its fruit orchards. It is powered by its own newly constructed 100 megawatt power station; its 12 water-pumping stations supply 20 cubic meters per acre per day. The total manpower employed at El Salhia, including administrators, engineers, maintainance technicians, and farm workers, is about 2,000 people inhabiting a new city consisting of 2,200 residential units.

Our visiting party proceeded to the administrative offices of one of the five sub-projects, named the Shabab Projects, where we were greeted by its director, Engineer Gamal El-Din Kalied, an Egyptian-trained agricultural specialist in his early forties. After being treated to lunch composed of locally produced food, Engineer Kalied explained that eight months ago, in March of 1982, the entire area of Shabab Project was yellow-sand desert as it had been for millennia. Now, as we could see, it was covered with green. With the modest pride of a man who knew he had defeated the desert, he proceeded to explain that he had currently under cultivation potatoes, tomatoes, green beans, turnips, radishes, sugar beets, onion, barley, alfalfa, lupines, clover, cabbage, and cauliflower, as well as a great variety of fruit trees. He had just sent his first 3,000 tons of string beans to European markets. Engineer Kalied explained that development costs were 1,400 Egyptian pounds for infrastructure per acre and 2,000 pounds for initial reclamation and cultivation. His very first crop, two tons of green beans per acre, had covered 40 percent of the expense. Given three crops per year, Kalied expects his project to break even financially during the third year of operation. He is further committed to completing 15 dairy farms (two are already operating), 11 rearing stations for chickens, and numerous fattening sheds for cattle. The entire El Salhia project, he explained, plans a cattle head capacity of 80,000 per annum, yielding 40,000 tons of meat per annum, an annual production of 180 million table eggs, and 15 million chickens.

The engineer spent some time explaining in detail the intricacies of the particular irrigation system he is employing, reminiscing about the days he spent in Nebraska getting aquainted with the U.S. equipment and its manufacturer. Upon prompting, he reported that El Salhia is not the only land-reclamation project now under way. There are other major projects in Upper Egypt, in Maryut, South West Delta, Middle Delta, South Tahrir Province, and elsewhere.

"Pivot and drip irrigation methods are the most efficient for defeating the desert," he explained. "Our only limiting factor is availability of water, ultimately. We must use irrigation systems which save water." We were then offered a ride on his pickup truck to visit the fields. At each stop, Engineer Kalied's quiet pride in his work grew, as he bent down, to show us the tomato bushes bending under the weight of their fruits, or the enormous potato roots as they emerged from the sandy soil that he removed with his hands, or the huge turnips that his farmers were already collecting.

"Look at the soil," he pointed out suddenly, "only one crop cultivated in thousands of years and it's already changing color.... During the beginning phase, we select crop cultivation sequences primarily for the purpose of enriching the soil. In 10 years, this will be one of the richest farmlands anywhere."

Before parting, I told Engineer Kalied that his work is a major military victory against the desert. He said, "You should tell people we want peace. We want peace with Israel, we need peace to develop our country. The only war we want to fight is against the desert."

We parted warm friends, I hope forever. This hardworking, brave and unassuming man, it occured to me, is the kind of indomitable technological optimist, a special breed of frontier "American" growing out in the desert, a breed which has earned the hatred of Aurelio Peccei and the Club of Rome.