Forts and palaces still dominate the desert landscape in India's northern state of Rajasthan. Though the people of Rajasthan are no longer ruled from the palaces by princes and maharajahs, in many ways life here goes on in much the same way as it has done for centuries.

There is some water in the Rajasthan desert, and throughout history villages have grown up around wells. There is enough water for the animals, mostly goats, sheep and camels, but usually the water is brackish and unfit for humans.

Since the late 1950s the words "shifting sands" have acquired a new meaning in Rajasthan. Some 10,000 kilometres of canals and tributaries are being gouged out to bring water from the Himalayas to nearly one-and-a-half million hectares of land.
When finished it will be the world's largest irrigation network, capable of sustaining 200,000 farm settlers and their families. Eventually this sandy wasteland will produce three million tons of food a year.

Almost all the work is done by human and animal labour.

The camel carts were designed by a Rajasthan carpenter who discovered that aircraft tyres float easily across the sands. The local camels, specially bred, are large and can pull loads of up to two tons.

From the beginning women have been equal partners in the back-breaking task of building the canal. People come to the worksites attracted by the chance of earning a living - their only assets their own energies and those of their animals.
Between the planting season and harvest time when there's not much to do in the fields, there may be 30,000 people working on excavations, people whose needs for food and water must be met.

A temporary irrigation ditch cut by new settlers to grow melons for their animals. When the main canal is flowing, water will reach all over the settled land. But it will be 3 years after that before the settlers become self-sufficient.

The seeds of melons are extracted and the fruit and skins cut up for the animals. Before the settlers can really begin to farm, the sand dunes will have to be levelled and the land graded.

Food, 20 million dollars worth, donated by the international community through WFP, the World Food Programme of the United Nations, has been a vital factor in making it possible to build the canal.

In India, unemployment and underemployment are widespread, even so it was difficult at first to attract and keep a large workforce in desert conditions. Food aid provided the incentive.
Nearly a hundred years ago, the 21st Maharajah of Bikamer, Ganga Singh, dreamt of irrigating the Rajasthan desert. Today, it's happening, and by a strange quirk of history, his palace is being used as a WFP storage depot.

From the palace, trucks take the food to sub-depots for distribution to 55 outlets near work sites.

The food is not given free, it is sold through government fair-price shops at half its market value. Workers get family ration cards which they sign on receiving food. The low prices discourage commercial food sellers from exploiting the workers' isolation.

Oil, wheat, dried skimmed milk and pulses are the main foods supplied through WFP. Most of the food comes from the United States, Canada, Japan, Australia and Western Europe, but many developing countries - including India - give whenever they have a surplus. Money from the sale of WFP food pays for hospitals, clinics, ambulances, schools and other benefits to the communities.
Hard work in harsh desert conditions, compounded in some cases by a lifetime of undernourishment, sometimes takes its toll. But the canal workers get regular check-ups and treatment from mobile medical teams.

An estimated 500 million tiles, all made by hand, have been used to line the main canal. Temporary brick kilns are set up as the work progresses, section by section.

The bricks are a blend of desert sand and clay, brought from scattered diggings a 100 kilometres away.

Chanda Ram Moulder and his wife Meeram have worked as a team for 15 years — ever since they were married, near the site of a long-abandoned brickworks, at the beginning of the great canal system.

Their son and daughter will become brickmakers too, but by the time they are grown up the canal should be finished.
TILE LAYING

When the excavation work is completed and
the banks of the canal sloped, workers lay
the tiles, cementing them into position
to form a first layer.

After a second layer, the tiles are hosed
down for 30 days until the bricks are
properly cured.

CAMEL CARTS AND WORKERS

Day by day, for more than 25 years, the
canal has inched its way across the
inhospitable desert; it has already
provided irrigated land for some 90,000
settler families. The old Maharajah's
dream has become reality.

FLOOD WATERS

In Ethiopia, the problem is sometimes too
much water, rivers swollen with floodwater
carry away millions of tons of precious
topsoil.

Every day in the hills around Ethiopia's
capital, Addis Ababa, people collect
firewood to sell in the market. The fuel
needs of a rapidly expanding population
have ravaged the nations' forests, and
massive soil erosion has been the
inevitable result.
There are almost 32 million head of cattle in Ethiopia, about as many cattle as people. There are also 50 million sheep and goats. Over-grazing is another major cause of erosion.

Ethiopia's problems are compounded by periodic, sometimes devastating, droughts. The last decades have seen many years of famine. In one year alone more than 100,000 people died of starvation. Families who have lost everything, their animals, their crops, jam refugee camps. Emergency food relief has been sent to Ethiopia from countries around the world, much of it channelled through WFP. Since it was established, the World Food Programme has helped the victims of some 600 disasters - natural and manmade - in nearly 100 countries at a cost of more than one billion dollars.

But emergency aid brings only temporary relief. The roots of the problem remain to be tackled.
Not long ago Ethiopia was self-sufficient in staple foods, but now it must import 250,000 tons of grains a year, and pay for most of it in precious foreign exchange. Teckle Marriam earned the grain his wife is pounding into flour, and it cost his government nothing.

Today, Teckle Marriam takes his digging stick and sets off to join with many of his neighbours in an effort to bring back the forest and restore the land.

The leader of the local Peasants' Association tells his teams of villagers that they are working to help themselves and future generations.

Co-operative efforts work better if there is discussion and general agreement about how the job is to be done.

The plan of action established, the volunteers follow their own village flags to the various levels they are to terrace. This is a typical Sunday morning scene throughout the new Ethiopia. There are 25,000 Peasants Associations in the country, each one able to mobilize some 250 village families.
Farmers like Teckle who have seen the topsoil washed away from their lands work with a will. The workers, men and women, receive food rations for their work on weekdays, but on Sundays they give their labour free.

Most targets have been surpassed by 200 to 500 percent. In just 2 years 144,000 kilometres of terracing has been completed and tens of thousands of hectares reclaimed.

Within a year this eroded hillside land will begin to recover. Livestock will be kept off the slopes, and given fodder grown on or between the new terraces.

Nationwide 400 million trees a year are to be planted, including both timber species and fast-growing eucalyptus for firewood and poles. In this way erosion will be contained.

Half a world away, in Peru, the ancient Incas perfected the art of contour stone terracing. The buildings and terraces at Matchupitchu stand, monument to their industry and skill. The stones the Incas collected to terrace the heights above the Sacred Valley could, it is said, surround the world with a wall 2 metres high.
The narrow strips at the bottom of mountain valleys could never provide enough farmland, so the Incas terraced thousands of mountain sides.

Today, Peru has 20 million people, a high birthrate and almost all of its cultivable land in use. So Peruvians are restoring the ancient terraces of the Incas and building new ones to grow more food. The old spirit of community co-operation is being rekindled in self-help schemes, supported by WFP.

A professor from the University of Cajamarca, in the Northern Andes, the local nerve centre for self-help programmes, talks with some of the village participants.

(English translation of lecture)

"This work benefits the whole community", he says "not just oneself, though individuals do benefit indirectly. Reforestation plants trees for everybody, not just one person. The national Office of Food Support gives food as an incentive to work, and to compensate for the time spent away from your own work. Also, to be able to work one must eat. The World Food Programme gives food so that you can stay here in your village and help your village progress."
In the steep hills and gorges near Cajamarca a group of families has joined in another self-help project. For more than a year, they have been digging an irrigation canal along the side of their mountain. It will bring water from a source 40 kilometres away. Each family contributes one day's work a week. And each week they are nearly one kilometre nearer to their final goal, a plentiful supply of water which will ensure year-round crops.

Sugarcane, sweet potatoes, maize, wheat, alfalfa, mangoes and other tropical fruits will grow on the lowlands. From higher up will come apples, pears and plums, and from the High Sierra, cereals, tubers and pulses.

But for most of the farmers in Peru's depressed Andean area the returns are still small. They are barely able to scratch enough food from the thin soil for their own needs. When there is a surplus they head for the market, usually on foot, often across mountain ranges.
A surplus to sell in the market, a first step away from subsistence farming. There is a sense of hope in the air, a hope that many small scale projects in many different villages will somehow add up to a real change for the future.

Back in India the Rajasthan Canal has already brought dramatic change in the lives of many people. Step by step, it has transformed great tracts of desert into agricultural land. With regular watering, the sand turns into rich soil that needs no fertilizers for the first three years.

Rice, wheat, citrus fruits and cotton are a few of the many different crops harvested from fields the waters have brought back to life. Abundant, clean safe water from the Himalayas now flows close past many villages.

Whole new communities have sprung up along the canal, communities of strangers with one thing in common, they are almost all descendants of generations of landless peasants.
Once they become established, the settlers can afford animals for the heavy work, even tractors shared on a co-operative basis.

For the Bhajan family, who received their land 10 years ago, there is always plenty of food for animals and people. Their cattle give milk in quantities undreamt of just a few years ago. Here, at least, hunger has been conquered.

A smoke and a good gossip. There's leisure time now between harvesting and planting, a time when most people used to search desperately for work.

The new generation may never know the pangs of hunger.

In Asia, Africa and Latin America, where most of the world's poor live, partnership in self-help programmes has proved one of the most effective ways of beating the despair of poverty. People everywhere eagerly respond when given the opportunity of helping themselves .. of sharing the future.