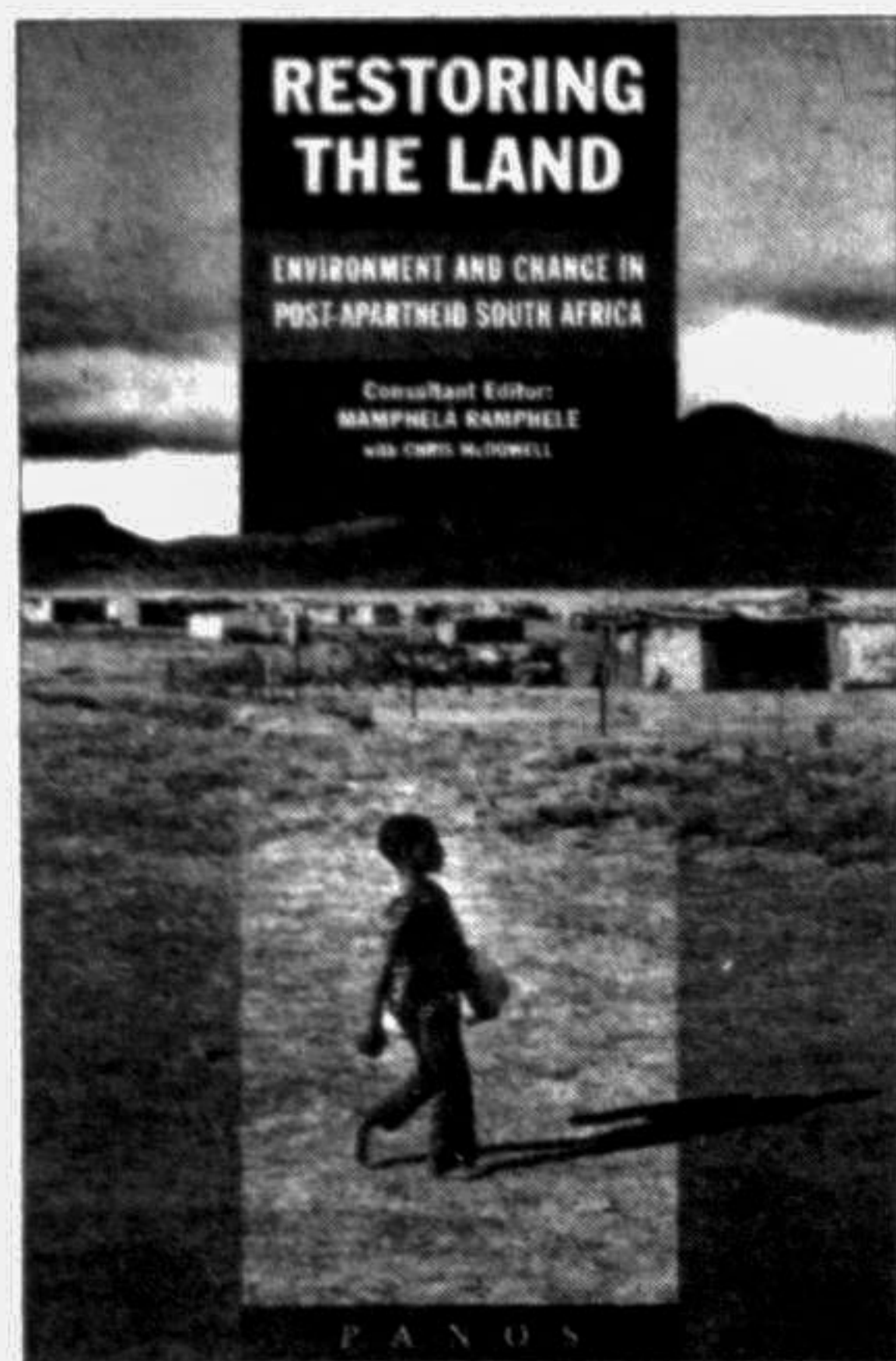


# Apartheid in Environmental Ravage



## Restoring The Land

Environment and change in Post-Apartheid South Africa

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**T**HIS is a timely publication about the ravages on nature and land caused by South Africa's apartheid policy. Its publication coincided with the largest gathering of world leaders in history at the Earth Summit in Rio de Janeiro, to ponder over issues which cannot be held on the back burner any longer: central of which is the survival of the Planet Earth.

With contributing articles from South African trade union leaders, university lecturers, community workers, environmentalists and journalists, this book covers a wide range of topics relating to the environmental degradation as a direct result of the country's abhorrent apartheid policy as well as provide practical solutions to some of the deep-rooted problems.

South Africa has been a pariah nation for so long that the rest of the world community (except for some determined NGOs) has paid scant attention to its internal problems. There were many — especially those relating to social injustices, which now and then managed to project themselves on to the world conscience by the African National Congress leaders, although their guru, Nelson Mandela, was looked up and shut down by the White Nationalist government.

In recent years, however,

after internal and external pressures to move away from authoritarian rule and the bankruptcy of apartheid was demonstrated. President de Klerk's government finally acknowledged the need for a more democratic government involving all major players. For democracy to work, a certain level of living standard has to be met.

Apartheid has created a pyramidal society with the black masses propping up a tiny white elite. It has also caused untold devastation in the outright plunder of land from the native Africans who were pushed to "bantustans" or self-governing "homelands" and city settlements which were destined to become squalid, crowded slums — given the huge numbers of people involved. With the results of the recent referendum in a favour of dismantling apartheid, South Africa is faced with the tough problem of uplifting living standards for the majority of its citizens — the magnitude of which is described in scientific detail in this well researched book. For "unless the prevailing socio-economic circumstances are improved and the accompanying violence within the black community reduced, no sustainable transition to democracy will be possible".

While various wildlife preservation societies have been doing a commendable job

in highlighting the plight of animals such as elephants and black rhinos who are in danger of becoming extinct due to man's greed and callousness, precious little thought has been given to the fact that such noble concepts mean absolutely nothing to the millions of native Africans who barely eke out a subsistence living in an increasingly harsh environment. "Restoring The Land" points out the cogent fact that nature preservation is inextricably linked to the elimination of poverty and inequality. It is hardly likely that the impoverished and starving will hesitate to cut down trees to cook their meals just to preserve them for future generations. Their basic needs are immediate and have to be satisfied. It is also expecting too much for the same groups of deprived people to realise that their womenfolk and children have to walk punishing miles every day in the searing heat to fetch water because they have been depleting nature's resources. Their gut feeling is simply survival from day to day.

Many of the problems relating to ecological ruin in all forms are laid on the doorsteps of South Africa's apartheid policy, institutionalised by the Nationalist government in 1948. This took the form of various Land Acts of 1913 and 1936 which drove the Africans to the worst parts of the country (in terms of

poor soil, distant unwanted locations and arid regions) and allotted their vast numbers a meagre 13 per cent of land for use. Accurately described as a "recipe for disaster", the pressure on the land was so great that it resulted in overgrazing and over-cultivation, turning the already exhausted land into a dustbowl.

This enormous pressure resulted in an alarming rate of desertification, which led to the drift to the cities where they became useful as mental help in the "Whites Only" enclaves and in keeping the cities clean. Somehow or other they had to be housed and they were — in cramped sardine-like settlements on the fringe of cities. But the exodus continued: simply because the barren farmlands allotted to them could not even support a dog's life. So squatter settlements mushroomed in most metropolitan areas. All the time, environmental degradation is taking place. These communities had the barest infrastructure and quickly turned into ghastly slums.

Another method of isolating the Africans from the Whites (who were given vast tracts of rich farmlands) was to dump the former into "resettlement camps"; which were touted by the government to unsuspecting Africans as places with larger plots than they were used to, where houses were already built and all they had to do was to turn the key and enter their new homes. The reality was... total betrayal. Community leader Nathaniel Skisazana recalls one move vividly: "There was nothing — no sanitation, no water, no houses". All they found was "long grass and snakes".

As the custodian of the land for future generations, South Africa's Nationalist government probably ranks among the lowest in the world. It was only as recent as August 1991 that the then Minister of Environment, (oh yes — there is such a department there!) Gerard Kotze, announced that the country would no longer import toxic waste. Because of its lax laws on this subject, cheap and repressed labour, the scarcity of established popular NGOs championing citizens' rights for a clean environment and last but not least, the cost of burying hazardous waste grew so high in the industrialized West, S. Africa had allowed itself to be a dumping ground. As environmentalists will testify this will cause untold long-term harm and cost the nation much more than it received to remove the ill effects of har-

bing toxic waste in the first place.

The social injustice, not to speak of the harm done to the environment caused by apartheid is mind boggling. Because of the insistence of separation of the Whites from Africans, South African cities are widely sprawling in nature, making administrative costs prohibitive. As usual, the Africans bear the brunt of the costs in terms of total negligence. Figures are staggering: about 70 per cent of urban blacks have no direct access to electricity or running water, some 40 per cent of the same group earn incomes below the poverty line, 25-40 per cent of "employables" are formally unemployed and it is not uncommon for poor people (blacks of course) to commute 60-80 km to work.

For the shortsighted minority Whites, they are not spared either from the multifarious ill effects of their cities under stress — even though they pretend they are safely protected behind their walled sparkling villas of sprawling lawns and flowered gardens. Air pollution caused by grossly inefficient managed electric power forcing the massive use of coal for heating and cooking, acid rain caused by over-industrialization and loud emission from motor cars affect all and sundry, regardless of colour or creed.

"Restoring The Land" not only highlights the numerous problems related to ecological conservation but also offers tenable solutions. For example, Norman Reynolds of Earth Africa and Southern Africa Foundation for Economic Research who asserts that "communities are the best guardians of the land and its resources", makes various recommendations to realise this approach. Ultimately, it will be up to the government which emerges after the breakup of apartheid to implement them so that the country may become greener and more wholesome.

Because of some highly technical subjects relating to legislation, pollution and land rights, some parts of the book can be rather dry for the general reader. This, however, should not deter those involved in sustainable development from using this collection of articles as a valuable reference on some similar problems (not caused by apartheid) in other parts of the world.

Reviewed by Nancy Wong

# Military Spending Mocks India's Poverty

Prakash Chandra writes from New Delhi

**O**NE of the world's top development economists, Dr Mahbub-ul-Haq, has set out a new goal for the Third World — development with a human face.

The ultimate end of all development strategies must be people and their welfare. Economic growth is only a means. Income-generation is necessary, but it is not the sum total of human life," he says.

Thus, Dr Haq points out, development must enlarge the range of choices at the disposal of the people. These choices include not only income and employment but also health, education, physical environment, human dignity and freedom.

Dr Haq, who is currently serving as special advisor to the UN Development Programme (UNDP), talks of disturbing trends and wide disparities within Asia.

Participating in a seminar in Bombay, he noted: "South Asia with over one billion people has a life expectancy 10 years lower than East and Southeast Asia, and a literacy rate of 42 per cent as compared with 72 per cent in the latter."

In fact, South Asia has the lowest literacy rate of all the regions of the world. Three-quarters of the world's illiterates live in the five most populous Asian states — China, India, Pakistan, Bangladesh and Indonesia.

Dr Haq feels strongly that sustainable human development must move to the top of the priority agenda for the year 2000.

For the cries in New Delhi and Islamabad are mostly related to economic growth. Observers noted here that the Planning Commission and various government ministries in New Delhi are often locked in a combat on the possible rate of economic growth.

Dr Haq points out there are more important goals such as universal access to basic education, primary health care for all, elimination of malnutrition and provision of safe drinking water for all.

Dr Haq believes sustainable development can be achieved if all increases in military spending are frozen and additional resources for human development are released.

If Asian countries manage to freeze their military spending increases in the 1990s — not cut them by 3 per cent to 4 per cent every year as indus-

trial nations are beginning to do, but just freeze them — it will potentially create a peace dividend of around US\$150 billion over the next decade, enough to finance all essential human goals.

In many countries — particularly in South Asia — governments over-regulate their economic systems, with consequent inefficiency and corruption. These could be avoided by privatisation of some of these activities and by diverting much-needed re-sources to social sectors, says Dr Haq.

Money should, also be spent efficiently within the social sectors. Dr Haq points to many inefficient and inequitable priorities: urban hospitals for a privileged few rather than primary health care for all;

**When markets are free there is even a greater need for social action because markets are not particularly friendly to the poor and the vulnerable.**

enormous subsidies for the universities, while basic education goals await their turn in the budgetary queue; piped water supply to the higher-income groups rather than standpipes for the masses.

He believes that if Asian countries make a determined effort to achieve human development goals by the year 2000, the international community must lend a helping hand. This can be done in three ways:

For a start, wealthy nations should increase aid allocations. Aid priorities should be changed in favour of expenditures on basic education, primary health care and safe water. Trade barriers must be progressively dismantled: so that developing countries can share more of the global economic opportunities.

What is true for Asia is even more true for India. Its life expectancy of 59 years and adult literacy rate of 43 per cent is significantly lower than the average for all developing countries. In contrast, Malaysia has a life expectancy of 70 years and adult literacy rate of 74 per cent.

More than one-third of the world's poor live in India. In 1990, there were over 400 million people below the poverty line in India. About 75 million children (of whom 54

million are girls) are not in school. Nearly 47 million children under five suffer from malnutrition. About 216 million people are without access to safe drinking water.

Dr Haq's advice to Indian planners is that they must draw up a long-term strategy which should clearly identify the human development objectives in the field of education, health and technology through a judicious investment in its human capital.

At the same time, a generous injection of economic growth is needed. A good sign is that India has broken away from the 1.5 per cent per annum growth in per capita income during 1965 to 1980 to a more respectable growth rate of 3.3 per cent during the Eighties. Even this growth rate must be stepped up.

The recent liberalisation of the Indian economy is an important step in this direction. But Dr Haq emphasises that when markets are free there is even a greater need for social action because markets are not particularly friendly to the poor and the vulnerable. The new ideology of the marketplace must be tempered with a judicious amount of social compassion so that efficiency and equity march in step.

Dr Haq says the level of military spending must be brought down in South Asia to find additional resources for human investment.

Dr Haq points out that the present level of US\$14 billion a year for military spending in South Asia "mocks the extremes of their human deprivation. I do not wish to single out India since many countries in the region are guilty of the same crime against their own poor people."

"But it is only natural to expect that India will give a healthy lead in the new milieu where global military expenditures have already begun to decline.

"Lack of concessional assistance has obliged India to incur hard debts which exploded over the last decade, mortgaging India's future options. The trade environment has not been too favourable either.

"There is no doubt that a more favourable global economic environment will considerably help India in accelerating its economic growth and ensuring sustainable human development in the coming decade."

# China Turns on to Wind Power

**F**OR most people in China, turning on the light is nothing unusual, but for nomadic herders in the Inner Mongolia Autonomous Region in the north, it is a new experience.

People in some of the region's remote areas where electricity was unavailable had for centuries used kerosene lanterns or makeshift torches to see at night. To watch TV was an impossible dream.

But today, the Mongolian winds are being harnessed to bring electricity — and with it television and enough light for reading books — to the 320,000 nomadic households in the pastoral land.

Inner Mongolia's sweeping plains are rich in wind power. A recent survey by the New Energy Office of the Inner Mongolia Autonomous Region shows that wind speed there averages three to four metres per second. Wind power potentials are about 540,000 Megawatts or 30 per cent of the country's total.

To tap these resources, regional authorities have installed 80,000 wind-driven generators, providing electricity for 30,000 nomadic households, or a quarter of the total living in the areas without electricity.

According to Wang Yongfang, an official in the New Energy Office, a small wind-power conversion system includes a rotor, a generator, a tail vane to keep the rotor plane perpendicular to the wind direction, a four-to-20-metre-high steel tower, a set of 20 storage batteries, and a distribution box.

She said the system is designed to start generating electricity when wind velocity reaches four metres per second, and operate at full capacity when the velocity reaches 11.2 metres per second. The system can withstand a wind speed of 40 metres per second.

Surplus electricity accumulated in the storage batteries ensures the continuity of electricity supply when there is little or no wind, she said.

A 100-watt mini-generator of this kind can supply enough electricity for three families. It

costs no more than 40 yuan (US \$7.7) a year to operate, in contrast to the minimum of 400 yuan (US \$77) a year an average stock breeding family spent on paraffin oil for lighting and batteries.

The regional government subsidises the herders for buying wind-power generators. A 50-watt generator, which sells for 800 yuan (US \$154) on the open market, costs the buyer only 600 yuan (US \$115), with the rest coming from the government. The regional government has contributed 14 million yuan as subsidies in the past few years.

Local authorities also provide information and run training courses on the use of

**In tapping wind energy, the Chinese don't fumble in the dark.**

wind-driven generators. In addition, they also send technical personnel to help the herders maintain them.

As a result, 95 per cent of the 80,000 wind-power generators in use in Inner Mongolia are in good conditions, a recent survey shows.

Ms. Wang said that wind-power generators are also sources of power for regional meteorological observatories, communications stations, seismic observation stations and electric fences that keep animals away from the protected grassland.

Wind-power generators have also improved efficiency in animal husbandry. With electric shearing and milking machines, for example, herders now can shear or milk a sheep in five minutes, raising the efficiency by four times compared with manual operation.

Currently, regional officials are emphasising the production of mini-generators of from 50 to 100 watts, with a view to solving the energy problems in the sparsely-populated region where population density is 16 people per square kilometer.

The region annually produces 35,000 wind-power generators in 22 models. Also produced are 10 models of wind-powered pumps ranging from 50 to 5,000 watts.

Along with the development of geothermal, solar and tidal power, development of wind energy has been listed as one of China's major energy research and development projects in the country's 8th Five-Year Plan (1991-95), according to Gao Xikang, general manager of the Development Center of China for Wind Energy Technology.

Though China has a history of over 2,000 years in tapping wind energy, it had not turned its attention to the development of wind-power generators until the late 1970s.

To speed the development, the central government has set up four wind-energy experimental stations in Badaling near Beijing, Xilin Gol League in Inner Mongolia, Xinghua Country in Jiangsu Province, and Lishan in Zhejiang Province.

At Badaling station, 34 domestic models of the wind-driven machines "operate alongside foreign models for comparative study."

At the Xilin Gol League station, experiments are being conducted jointly by the German government and the Chinese Ministry of Machine-Building and Electronics Industries to make comparisons between 60-kilowatt wind-power generators and those with a capacity of between five and 10 kilowatts.

German and Chinese wind-power experts are also conducting a survey of the consumption and demand for electricity in the remote areas of Inner Mongolia.

Meanwhile, China has established 80 wind-energy research organisations across the country, with a combined membership of about 500 professionals.

China has also signed contracts with foreign firms to import key technology and equipment for producing advanced wind-power conversion systems.

Despite the government's efforts to tap wind energy, about 250 million people in China, mostly in remote areas like islands, mountains and grasslands, still have no electricity.

# Ivanovich Took over from the State

by Prakash Khanal

**W**HEN the government in Moscow announced that it would distribute land to people who wanted to begin farming, 43-year-old Petr Ivanovich applied. He had 20 years experience as a forest guard with, as he put it, "no knowledge of farming, but a strong will to work for myself."

Now he owns and 80-hectare farm — fairly large by local standards — in Palushkina village, near Moscow. He has 70 milking cows, producing 360 litres of milk a day. He also keeps animals and hopes soon to be producing 20 to 30 tonnes of meat a year.

He says: "I have some pigs, sheep, goats, ducks and chickens which I have reared for us to eat ourselves or to exchange when necessary, since cash is hard to come by in the villages."

For three years he and his wife Alevtina, and their 12-year-old daughter have been living in a makeshift house, a large wooden box more like a transport trailer than a house. It provides little comfort in the winter, when the temperature drops to minus 10 degrees Celsius. Soon Petr will build a proper house.

A look over Petr's farm shows that Russian government encouragement has not gone to waste. Two tractors, various farm machines, and a huge pile of building material leave hardly any space to walk around the farm.

Petr was given his land on a state farm which produces fur. He has to give 320 litres of milk to the farm every week. Occasionally, he offers milk and meat to officials to help the work along.

"I always dreamt of owning a farm of my own," he says. "When I first started people thought I was crazy, but today there are three large and more than 50 small farms in this area."

Petr employs five people in addition to himself, his wife and brother who has come to help. He pays each worker 2,000 roubles a month. Produce is sold to schools and welfare centres, which collect it from his farm, though this may not long continue because the government may raise fuel prices.

"Except for construction

materials and breeding stock, I am self-sufficient," says Petr. "From May to October I grow maize as feed for my stock, and I sell the extra to other farms."

After five years hard work, Petr's farm is recognised as a model by the Russian government. It is often visited by for-

demonstration unit — the first one in Russia — as an advertisement to promote our sales."

Petr Ivanovich has benefited by moving forward early. For today ambitious farmers it is not so easy because of Russia's many economic problems. A decree by Russian Presi-

dent Boris Yeltsin in February said that all the 50,000 collective and state farms — kolkhozes and sovkhoses — should be privatised or turned into companies within this year. The land and property belonging to these farms is to be distributed to the people

who have worked for them. In Russia there would seem to be enough land for everyone. Little more than one-quarter of it has been used for human settlement and farming.

The government has created Land Reformation Committees (LRCs) to help farm privatisation. The directors of

the collective and state farms are LRC members. People applying for land complain that they are discouraged by officials who do not want to lose their grip on power.

For some, the decision to privatise these farms has been a tempting opportunity to ac-

quire their own land. For others, no longer so young, the chance to become "neo-capitalist" and own a private farm has no attraction. Seven decades of communism has robbed them of self-confidence.

Those ready to take the risk cannot afford the necessary bribes. Dr Valery Khozemp, of the People's Friendship University in Moscow, says: "Most of the land is falling into the hands of people who have either money to bribe, or people who have power, who hold important portfolios in the government. They have registered land under the names of their relatives."

George V. Saenko, of the Association of Family Farms in Russia (AKKOR), agrees.

AKKOR was created in 1990 as an autonomous organisation to help farmers apply for government land, get loans from the banks, receive training in modern farming practices and help the government adopt laws that will encourage farmers.

AKKOR is responsible for educating farmers through its five newspapers, aimed at the rural populace. It publishes information about successful farmers, modern farming technology, and business suggestions.

It has developed relations with agricultural organisations in the Netherlands, Sweden, Germany and the United States and helps Russian farmers find business partners abroad. A visiting programme takes them to farms in these countries for training programmes.

AKKOR has 75 branches all over Russia and for 1992 has received 6.5 billion roubles from the government.

Farmers receiving land are forbidden to sell it for at least 10 years. They can employ any number of labourers, but the land will be taken from them if they do not live on it and farm it every year.

It is difficult to invest in equipment when prices of farm machinery and fertilisers are 120 times higher than in 1991. The prices farmers receive for their products are only four times higher than in 1991.

## Life in rural Russia

Of 2,222 million hectares of land only 610 million are being farmed

**Death rate among rural people is 30% higher than in cities**

**15% of local roads are dirt tracks**

**Poor working conditions lead to 70% more respiratory problems**

**6% of rural clinics have no doctor. 30% of hospitals have no running water, 77% no hot water, 7% no telephone**