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UNCCD News

A bi-monthly update on the work of the United Nations Convention to Combat Desertification (UNCCD)

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FROM THE EXECUTIVE SECRETARY

The foundation for Haiti's recovery: restore the land

The earthquake in Haiti has devastated urban centres and rebuilding will take many years. The thousands of quake victims who in the past came from the countryside in search of work are faced with two bleak options: wait destitute in tent cities for assistance or return to their impoverished rural homes.

Ruined infrastructure, schools, hospitals, public buildings and housing can expect fresh funding and renewed commitment from development assistance programmes. But donors, the Haitian government and private investors must also find incentives for Haitians to durably resettle their villages. Starting in 2010, "building back better" in Haiti calls for a massive joint effort to restore the stricken country's notoriously degraded land.

By some estimates, Haiti has lost 98 percent of its forests. Viewed from space, the island of Hispaniola is visibly brown and denuded on the Haitian, western side, while much of the Dominican Republic on the eastern side remains green. If ever the world needed stark evidence of the ravages of man-made desertification, Haiti is it.

Rebuilding the land cover through agroforestry programmes will help improve peoples' livehoods, provide long-term food security and also bolster the country's resilience to the impact of climate change. The Haitian government was readying its National Action Programme to implement the UNCCD just before the earthquake struck. As they rally to Haiti's cause, Parties to the Convention now have a golden opportunity to help the government demonstrate that livelihoods, biodiversity and coping with climate change all start with sustainable land management. We should not miss it.

If ever the world needed stark evidence of the ravages of man-made desertification, Haiti is it.

Luc Gnacadja, Executive Secretary

Climate change and adaptation in Ethiopia

Can sustainable development be made "climate-proof"?
New research provides sobering evidence

"Development work today is unthinkable without proper data on the impact of climate change", says Professor Sabine Tröger, a researcher in geography and development. That's one major conclusion she draws from 24 months of field work by an Ethiopian-German task force working under her guidance in 14 different locations across Ethiopia.

Her project is unusual in seeking to feed fresh climate change research directly into an ongoing national programme for sustainable land management (SLM) supported by GTZ and other donors in the country. However successful that effort, the evidence emerging from her team's experience seems clear: climate change is a new "stressor" measurably worsening the vulnerability of the poor. Its impact should thus be systematically studied within the context of other existing poverty factors – and uncertainty and flux are part of the equation.

According to Prof. Tröger, effective adaptation to climate change is "a dynamic social process", calling for continuous adjustments in development practices and policies.

"How to demonstrate improved soil and water conservation practices if you can't count on the rainfall any more? How to scale up crop production when you're not sure what crops will best suit the changing climate?"

Professor Sabine Tröger

The main findings Even before the onset of climate change, many rural Ethiopian communities and their ecosystems were already suffering. Traditional "vulnerability factors" included deforestation for household fuel, soil degradation and high fertilizer prices, population pressure, overgrazing, the dwindling size of farm plots and a lack of alternative livelihoods. But climate change – unpredictable rainfall, abnormally long droughts, hail damage, livestock and crop disease stemming from drought – is both a new vulnerability factor and an aggravator of existing ones.

In addition, certain types of fundamental statistical data no longer serve a useful purpose, as this innovative undertaking soon discovered. While Ethiopian temperature measurements indicate an average rise of 0.5 to 1 degrees Centigrade from 1961 to 2005, rainfall figures for that period fail to reflect the increasing spikes and troughs of precipitation (see story below).

"It's all very well to promote sustainable land management, but how to demonstrate improved soil and water conservation practices if you can't count on the rainfall any more?", Prof. Tröger explains. "How to scale up crop production when you're not sure what crops will best suit the changing climate? How to improve the livestock system when the cattle and sheep are dying?"

Some more resilient than others Agricultural smallholders might yet prove resilient: switching crops or moving from rain-fed farming to irrigation could help them roll with the climatic punches without a radical change to their lives. However, the prospects are bleaker for those less accustomed to

the modern world: in some cases, the new burden of climate change threatens pastoralist cultures with obliteration. The GTZ-coordinated project in Ethiopia found evidence of this on the remote lowlands of southern Ethiopia, near the border with Sudan and Kenya, in a settlement of the agro-pastoralist Nyangatom people.

Agro-pastoralist societies in general are faced by environmental challenges, which necessitate very specific social regulations and responsiveness. "Societal systems like this are well suited to support survival in harsh environments, but at the same time are highly delicate and vulnerable to transformational forces from outside", says Julia Pfitzner, a University of Bonn researcher who lived with the Nyangatom for three months.

Bid Nyangatom customs goodbye? The research team found that, even without climate change, the Nyangatom's ancient culture of sharing based on cattle, sheep, goats and sorghum was already at risk. "Political decentralization in Ethiopia has brought the opportunity of parliamentary representation, but it also means new disruptions: money, motorbikes, plastic buckets and taped music", according to Ms Pfitzner. "The creation of strictly reserved national parkland has limited the movement of livestock, and there are rumours that vast areas of land perceived as under-utilized are being allocated for big investments by global actors."

The faltering rainy seasons and the disappearance of river-retreat agriculture is now putting this "vulnerability context" under further strain. Drought is forcing herds further and further from the Nyangatom homesteads, diminishing social cohesion and sparking armed conflict with neighbouring tribes. Food aid is becoming commonplace. "Adaptation in this context can only mean giving up the agro-pastoralist production system", says Ms Pfitzner. "It means breaking the Nyangatom's generational contract."

Adaptation for each circumstance Clearly, the varying impact of climate change from place to place and the different challenges it poses to communities demand a variety of adaptation strategies. Prof. Tröger's German-Ethiopian research teams offer some initial answers. Traditional methods of guarding against food shortages, such as village grain storage depots, should be strengthened. The adaptive response could also include improved seeds, a rescheduling of planting seasons, selection of more drought- or pest-resistant crops and greater use of irrigation, where feasible.

And though climate change is nation-wide, a uniform approach to tackling it is unlikely to work: "Ethiopia needs tailored, individual packages of interventions, differentiated by region", Prof. Tröger believes. "Raising capacity and awareness about climate change means developing an extended catalogue of possible counter-measures tailored to specific climate change impact patterns. And for those most vulnerable groups that can't sustainably adapt to climate change despite supportive measures for SLM, we need funding mechanisms that tap into the carbon market."

"I can remember. The rains got shorter and shorter. The three rainy months became just two. In the last ten years, everything has changed. Now there's actually no rainy season any more."

Dida Lopuke
Nyangatom herder

(This article is based on a scientific presentation, in German, by Professor Sabine Tröger, Julia Pfitzner and Friedrich zur Heide at the GTZ Haus, Bonn, Germany on 12 January, 2010. The research team was supported in the field by the following Ethiopian experts: Lobuwa Kakuta, Soya Lasbuk, Teowdros Kassahun and Birhanu Haile Meskel)

Anatomy of a project: Student researchers, hands-on field work and "intercultural teams"

Purpose: Investigate Ethiopian dynamics of climate change and help devise tailor-made adaptation strategies to feed into a nation-wide sustainable land management (SLM) programme targeting 177 selected Ethiopian watersheds

Time-line: February 2009 until end-February 2010

Staff: Eight German graduate geography students from the University of Bonn, three Ethiopian students from the University of Addis Ababa and Bahir Dar University (Amhara state) and 14 local extension workers, working in intercultural teams

Location: 14 different rural sites in Ethiopia featuring comparable levels of poverty, agricultural productivity and environmental vulnerability

Methodology and tools: Standardized procedure for Participatory Rural Appraisal (PRA), close observation and semi-structured interviews, to permit some matching and comparison of the different data-sets. PRA seeks to foster local "ownership" by involving rural people in development from the very beginning, building their knowledge and opinions into the planning and management of projects and programmes.

Institutions involved: The research is supported by the National Programme of Sustainable Land Management of the Ethiopian Ministry of Agriculture and Rural Development (MoARD), the Horn of Africa Regional Environment Centre as well as the Centre for International Migration and Development (CIM) and the GTZ Climate Protection Programme on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

Project design & management: Dr. Sabine Tröger, Professor in Human Geography at University of Bonn, Centre for International Migration and Development (CIM) (http://www.cimonline.de/en/index.asp) advisor on climate change and adaptation to the Horn of Africa Regional Environment Centre in Addis Ababa (http://www.hoarec.org/). More information: troger@geographie.uni-bonn.de

Conventional rainfall measurements might fail to properly account for climate change

***Enset's* starchy staple food crops are now threatened by unaccustomed hailstorms**

Figures from Ethiopia's National Meteorological Agency (NMA) showing year-to-year rainfall from 1961 through 2005 seem unremarkable: the data shows precipitation has held pretty steady throughout this period. But evidence on the ground says otherwise. The total amount of water falling to earth every year may be the same, but in Ethiopia, at least, seasonal precipitation is going haywire.

Local farmers all agree that the *belg* rains that traditionally fall from March to end of May or June have turned noticeably sparser in the last decade. In the eastern and southern lowlands, they have in some places failed completely for the last four or five years. Meanwhile, in the west of Ethiopia, the seasonal *kiremt* rainfall has turned irregular and unpredictable, with heavy flooding, an alarming increase in hail storms and unusual hot winds. "The value of statistical data on rainfall must be taken in relative terms", explains Prof. Sabine Tröger, head of the climate change research project (see story on pages 2-3). "It's not about the total annual amount of rainfall. It's about its mode and timing."

Hail damage For affected farmers in Ethiopia, the impact means more than disruption of the planting seasons. Hailstorms across the Ethiopian highlands are battering what was once seen as a stable pillar of food security, the *enset*, a banana-like plant that in parts of the Ethiopian highlands is a staple crop. Resulting damage to the *enset* is worsening its susceptibility to a bacterial killer.

A Food and Agriculture Organization (FAO) country information brief said in 1995 that *enset* "provides more amount of foodstuff per unit area than most cereals. It is estimated that 40 to 60 ... plants occupying 250-375 square meters can provide enough food for a family of 5 to 6 people." Hail-induced bacterial infection of the *enset* "is considerable", according to Friedrich zur Heide, a University of Bonn student researcher who logged three months of Ethiopian field experience. "The trend for quite a number of households is food insecurity. And the alternatives to enset are limited by the growing unpredictability of rainfall."

POLICY

After Copenhagen: where agriculture and "land use" fit in

The Copenhagen climate summit last December failed to produce a binding agreement, triggering bitter disappointment. What emerged, known as the Copenhagen Accord, was merely "noted" by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC).

However, the Copenhagen Accord is worth a careful read. And though unsatisfactory to the majority of nations, it provides a way ahead. There are signs that the world's biggest emitters are resolved to stick to its terms. By end-January 2010, 55 signatories, including China, the USA, the EU, Russia, India, Brazil and South Africa, had formally submitted pledges to limit greenhouse gas emissions by 2020.

While these pledges do not amount to an international obligation, they are a sign that all is not lost. UNFCCC Executive Secretary Yvo de Boer said, "Greater ambition is required to meet the scale of the challenge, but I see these pledges as clear signals of willingness to move negotiations towards a successful conclusion." Hopes for a return to constructive, all-Party talks and a final resolution now lie in a continuing process of negotiations culminating in the next Conference of the Parties to the UNFCCC at the end of 2010, in Mexico.

Though not widely known, the climate change negotiating process has long been addressing land degradation and agriculture issues. The UNFCCC negotiating document "Cooperative sectoral approaches and sector-specific actions in agriculture" offers an insight into where matters stood before the Copenhagen Accord took centre stage. As the international community gears up for another climate round, how do land issues fit into the picture?

The UNFCCC negotiating document "Cooperative sectoral approaches and sector-specific actions in agriculture" offers an insight into where matters stood before the Copenhagen Accord took centre stage.

The Climate Change Convention recognizes the importance of emissions and removals of greenhouse gases resulting from agriculture and forests. Credible accounting for these emissions and removals became one of the key issues in negotiating the 1997 Kyoto Protocol and the rules for its implementation contained in the 2001 Marrakech Accords. The forbidding acronym LULUCF – land use, land use change and forestry – came into being in that context.

Interest in these sectors reflected both their scale in the total emissions budget and the consideration that they could offer softer policy options for limiting emissions than the "greening" of power generation, industry, transport and consumption patterns. In addition, it was felt that earlier results could be expected from the land use sectors than from the profound transformations implied by industrial or social "greening". Inclusion of LULUCF was thus regarded as an element of "flexibility" in the options available to developed countries to meet their emission targets under the Protocol.

Mitigation in developing-country forests That was some ten years ago, when only developed countries' emissions were targeted. However, the current phase of negotiations also encompasses mitigation actions by developing countries, in accordance with their responsibilities, capabilities and national circumstances. For several developing countries, the main potential for contributing to a global mitigation effort is by reducing, reversing or avoiding deforestation. [Note: The Intergovernmental Panel on Climate Change (IPCC) calculates that emissions from deforestation account for some 17 per cent of the global total.]

Hence, the UNFCCC's Conference of the Parties in Montreal in 2005 launched methodological work on this topic and the 2007 Bali Action Plan contained a specific element targeting the mitigation potential of the forest sector in developing countries. This so-called "REDD-plus" approach (see below) aims to promote policies and incentives to reduce emissions from deforestation and forest degradation and to maintain and enhance the capacity of forests to sequester carbon.

Negotiations on "REDD-plus" made good progress up to Copenhagen in the UNFCCC's Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA). Moreover, the Copenhagen Accord endorsed the idea of a mechanism to mobilize financial resources in support of "REDD-plus". There is thus a good prospect of agreement at the Mexico COP at the end of 2010 on the initial phases of a scheme to reduce forest emissions from developing countries.

The UNFCCC negotiating document "Cooperative sectoral approaches and sector-specific actions in agriculture" offers an insight into where matters stood before the Copenhagen Accord took centre stage.

New focus on the agricultural sector Since the extension of agricultural land is an important driver of deforestation, the forest perspective has encouraged a specific focus in the negotiations on the place of agriculture in policies to address climate change. The rationale is evident. Incentives for forest conservation should promote more efficient agriculture as an alternative to forest clearing. Substantial mitigation opportunities arise in the management of both livestock and croplands, the latter being also a carbon sink. Strengthening the resilience of agricultural systems in the face of the adverse effects of climate change is an essential component of adaptation strategy, protecting food production and food security.

Backed by such reasoning, the political initiative to highlight the agricultural sector has come principally from two sets of countries: those for which the sector is economically dominant and those which – as in the earlier case of LULUCF – are seeking out mitigation options that could deliver "quick wins".

Transferred into the work of the AWG-LCA, these interests led to negotiations on the establishment of a work programme under the UNFCCC that would encourage cooperative development and transfer of technologies, practices and processes that could enhance the mitigation and adaptation potential of agricultural systems. A draft decision to this effect was near completion in Copenhagen when action was shifted from the AWG-LCA by the last-minute introduction of text for the Copenhagen Accord.

Who benefits? This work-in-progress remains on the table and should be completed for adoption by the Mexico COP. Such a programme must be sensitive to the interests of poor and vulnerable farmers and forest-dwellers, providing incentives for better practices rather than loading them with additional burdens. It will also need to be accompanied by technical work to evaluate techniques and measurements of carbon sequestration in soils.

A word in conclusion: approaches to emission reductions in the agricultural and forest sectors in developing countries raise important issues that are reminiscent of those addressed in establishing the LULUCF provisions of the Kyoto Protocol. The first issue is technical: the need for credible and verifiable measurement of such emission reductions. The second is political: whether the credit for these reductions would accrue to the developing countries undertaking the mitigation actions or could be bought by developed countries through a market mechanism that provides the latter countries with more "flexibility". The debate continues...

The purpose of REDD-plus
Paragraph 1 b (iii) of the "Bali Action Plan", known as 'REDD-plus', calls for "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries". REDD stands for "reduced emissions from forest degradation and deforestation".

Major stakeholders in climate negotiations: Avijit Roy's photo of women at a well in Pululia, West Bengal, India, was an entrant in UNCCD's Second International Photo Contest

See-sawing towards progress

Consensus on a multi-disciplinary approach to UNCCD is growing

The origins of the UNCCD can be traced back to Agenda 21, an ambitious blueprint for global sustainable development adopted by the 172 countries attending the 1992 Earth Summit in Rio de Janeiro. Elysabeth David, currently coordinator of the Knowledge Management, Science and Technology Unit (KMST) at the UNCCD secretariat in Bonn, believes that proper implementation of the Convention to Combat Desertification has always demanded a blend of environment and development disciplines – and that this vital balance is finally being recognized by scientists and policymakers alike.

Elysabeth David is the coordinator of the KMST unit and serves the Committee on Science and Technology (CST). Until 2007, she supported regional implementation of the Convention in Africa, in the Northern Mediterranean and in Central and Eastern Europe. She has been with the UNCCD Secretariat since 1998. A member of the original team that started the Sahara and Sahel Observatory in 1989, she joined the United Nations Sudano-Sahelian Office in 1990 and then the UNDP Bureau for Arab States, working on monitoring, research and capacity building in sustainable development. She is French and holds two MSc. degrees in geology and remote sensing.

Remember Agenda 21? In my eyes, its 350-plus pages constitute the most complete document on sustainable development that ever gained global adoption. Among other things, it gave rise to the three so-called "Rio Conventions"*. And though Agenda 21 appeared back in 1992, I recommend reading it again, not only for an overview of the various processes it unleashed but also because the UN Convention to Combat Desertification (UNCCD) has its origins in Chapter 12, "Managing Fragile Ecosystems: Combating Desertification and Drought".

Despite the years since, Agenda 21 has lost none of its relevance. The decisions last October at the 9th Conference of the Parties to the UNCCD respond directly to Agenda 21's call almost 18 years ago for governments to "review and study the means for measuring the ecological, economic and social consequences of desertification and land degradation" and to "review and study the interactions between the socio-economic impacts of climate, drought and desertification and utilize the results of these studies to secure concrete action" (Chapter 12, paragraph 12.8).

What's in a name? The Convention's full official title, "United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa", speaks to the promotion and support it received from the start from African countries. Since then, however, affected countries of the Northern Mediterranean as well as those of Central and Eastern Europe, among others, have joined the Convention, sustaining a perennial debate over nomenclature and definition. What, precisely, is "desertification"? What is "land degradation"? Increasingly, the consensus is that answers must come from both policy makers and scientists.

The UNCCD is a Convention for sustainable development, anchored in socio-economic as well as environmental issues. But its entire 15-year history has been marked by duality, a sort of see-sawing between developmental and environmental policy influences that have themselves undergone substantial change over the years.

Problems of perception, coordination and access This imbalance has had unwelcome consequences. Regarded mainly as a convention for development in the initial phase of its negotiation, the UNCCD attracted large numbers of experts in development and poverty reduction: bilateral and multilateral donors, international agencies and NGOs of all stripes along with their programme and project managers. Media coverage was very thin, thanks to a mistaken perception that this was about distant events in the desert, or a "Convention for the Poor", as some called it.

The Convention also met with challenges at local level. For years, the government employees charged with implementing it usually came from the ministry of foreign affairs or cooperation. Given the Convention's broad focus, from land use and farming through water resource management to migration, a major challenge for these officials was getting all the various relevant ministries and departments to coordinate their work on it.

Meanwhile, scientists in rich countries remained mostly preoccupied with soil's value as a natural resource, and less with its socio-economic and development implications. Their work focused mainly on soil biophysics and issues of soil monitoring and evaluation. Scientists found no ready place for themselves within the UNCCD negotiations, so the debate over precise, globally-acceptable definitions of terms like "desertification", "land degradation" or "drought" suffered from their absence.

Scientists also found it hard to gain access to the UNCCD's Committee on Science and Technology (CST), a body largely reserved for government representatives. Feeling excluded from the UN process, some scientists even nurtured hopes for a parallel convention on soils, though this idea was later abandoned.

No early role for scientists It's worth comparing the fitful, marginal early influence of scientists on the UNCCD with their central importance in its better-known sister convention, the UNFCCC. The Intergovernmental Panel on Climate Change (IPCC), a high-profile body set up in 1989, three years

***The three "Rio Conventions" are the UNCCD, the UNFCCC and the Convention on Biological Diversity (CBD). All three eventually emerged from the Earth Summit in Rio de Janeiro, 3-14 June, 1992, officially known as the UN Conference on Environment and Development (UNCED)**

before the adoption of the UNFCCC, ensured that climate scientists were engaged in the climate convention's elaboration from the start.

As a result, the Climate Convention adopted monitoring, evaluation and targets very early on. It set specific objectives coupled with a mechanism for dialogue between experts in quantitative methods and modelling on the one hand, and policy makers and administrators on the other.

Progress on the Climate Convention was thus comparatively swift, compared to the pace of implementing the UNCCD. For too long, the latter lacked relevant empirical data on measuring and monitoring desertification, hampering proper assessment of the urgency of the problem and the impact of remedial efforts. And a fundamental question remained: how to reconcile the biophysical approach scientists to desertification with the imperatives of aid programmes for affected populations?

Bridging the disciplines Fortunately, recent years have seen a substantial improvement in our Convention's fortunes. The adoption in 2007 by 193 Parties to the Convention of the 10-year strategy strengthened recognition that environment and development go hand in hand. The actors on either side of the development-environment divide gradually are building bridges to each other, enriching their discussions with socio-economic considerations and introducing the notion of "beneficiaries" into the financial programming of desertification research. Programme planners from the start are striving to build in the concerns and expectations of the eventual beneficiaries. Increasingly today, the traditional boundaries between biophysical and socio-economic sciences are giving way to a growing number of multidisciplinary approaches to desertification.

The UNCCD in many countries has recently found a new home for implementation with its two other "sister" Rio Conventions* at the environment ministry. Fresh media attention to the importance worldwide of healthy organic matter in soil, for example in ensuring food security and slowing climate change, has also heightened scientific interest in the establishment of new indicators and monitoring and evaluation methodology that are so vital to the Convention.

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Avoid wild swings Of course, the see-sawing described above should now avoid lurching too wildly from development to environment. That would rightly worry developing countries that their concerns were being forgotten. Evenly balanced loads at both ends will make for steadier progress. As we work to assert this control , it is interesting to see that, over on the next see-saw, our sister-convention the UNFCCC is now trending away from an approach focused mainly on climate and towards a growing embrace of development issues. The opportunities for synergy are growing.

All in all, I believe the UNCCD is set on a new course. The recent agreement at COP 9 on impact indicators will permit measurement of these changes over time. Best of all, the Convention will soon benefit from evaluations of the economic cost of these changes, which should permit detailed and itemized targets for sustainable land management in future, more holistic and inclusive negotiations on environment and development.

The purpose remains unchanged and the first paragraph of the preamble to Agenda 21 says it best: "... integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future."

Download 4-page PDF, Land Matters, Recommendations from the UNCCD 1st Scientific Conference, 22-24 September 2009, Buenos Aires, Argentina, at http://www.unccd.int/knowledge/docs/Science%20Briefs%20Series%20No.1.pdf

Ice, water, dust

The United Nations has designated 2010 as the International Year of Biodiversity, and, among the many initiatives to mark the event, the three Rio Conventions have put their names to a new online calendar featuring images of climate change, desertification, land degradation and biodiversity loss. "Over time", the Executive Secretaries of the Conventions write in their joint introduction, "we have increasingly realized that these issues ... are deeply connected. We cannot tackle biodiversity loss, climate change and land degradation independently."

Full message by the Executive Secretaries and download the 2010 Rio Conventions Calendar: http://unfccc.int/meetings/rio_conventions_calendar/2010/items/5268.php

Kwon's quest: A wall across the desert

Kwon Byong-hyon is happiest in a floppy sun hat, goggles and green overalls, marching up sand dunes in the high wind and searing heat, shouting orders to hundreds of workers. It's a big change from the pin-stripe suits and delicate negotiations he knew as one of the Republic of Korea's most able diplomats. That career behind him, Ambassador Kwon's quest today is to plant and grow a wall of vegetation that will arrest — and then reverse — expansion of Asia's most notorious dust bowl.

A near-religious zeal about preserving the land, combined with warmth, humour and iron resolve, have made Kwon Byong-hyon into a remarkably effective organizer of large-scale projects to combat desertification. And the world has started to pay attention: in early 2010, Ambassador Kwon accepted a formal invitation from the UN Convention to Combat Desertification to become its first Sustainable Land Management Champion, a high-profile role to raise international awareness of land degradation, its causes and solutions.

The Yellow Dragon When Ambassador Kwon Byong-hyon first arrived in Beijing in early May, 1998, he found the city shrouded in a yellow haze. A dust storm was blowing in from the west of the city, a vast region of once-fertile grassland stretching out towards Inner Mongolia. "It was the Yellow Dragon", he recalls, using the local name for East Asia's annual weather phenomenon. "Cars and trucks were driving with their headlights on, people wore masks and there was grit everywhere".

Early the next morning, Ambassador Kwon received a telephone call from his daughter Mary in the South Korean capital. "Baba", she told him, "you should see it here. Beijing's sand storm has come to Seoul!"

"I realized then that I had to do something", Ambassador Kwon recounts. "The embassy staff confirmed to me that thousands of square kilometres of arable land were being lost to drought and erosion in China every year. I suddenly saw that this wasn't just a Chinese problem, it was affecting my family back home, as well. The destruction of the soil was also about me, it was about all humanity. At the very next opportunity, I went to the city outskirts and planted my first tree."

One billion trees That tree was the start of an afforestation pilot project now known as the China-Korea Friendship Forest. Thanks in part to Ambassador Kwon's passionate commitment to conserving Chinese land, his 30-month posting to Beijing saw a marked warming in relations between the two countries. And since his retirement from diplomatic service in 2000, Ambassador Kwon has become one of Asia's most noted environmental campaigners.

"Thousands of square kilometres of arable land were being lost to drought and erosion in China every year. I suddenly saw that this wasn't just a Chinese problem."

Two views of the same stretch of the Great Green Wall project in the Kubuqi Desert in Northern China: progress from 2007 (above) to 2009 (below) has been promising

He is founder and chairman of the Seoul-based Future Forest foundation, which every year since 2002 has mobilized thousands of young Korean volunteers and members of the All China Youth Federation to build a "Great Green Wall" of one billion hardy trees across China's Kubuqi desert. Their goal is to block the advance of sand that for years has been burying grasslands and farmsteads, blowing into Beijing and affecting countries far beyond China's borders.

Future Forest has already planted some 4 million saplings in a narrow band of more than 120 square kilometers that runs north to south across the eastern Kubuqi desert, a feature apparently already visible from space. Ambassador Kwon contends that, while tiny against the scale of China's desertification problem (see box below), his project is a clear proof of principle.

Local conditions also help: despite the surface desolation, much of the Kubuqi desert a few feet down is comparatively wet. Thus, between 70 and 80 per cent of the trees, mostly sand willows and the indigenous Xinjiang poplars, have survived so far, their roots both drawing on and retaining the sub-surface moisture while impeding sand migration and dune-formation.

Goats and man-made causes Local farmers at first were skeptical, but the Future Forest programme and Ambassador Kwon's energy and determination have won them over. Large-scale afforestation may not work in all desert conditions. But China's National Bureau to Combat Desertification has recently found that, overall, China's desertified areas have stopped growing and may even be shrinking again, and attribute this in part to initiatives similar to the Great Green Wall.

At the same time, overgrazing, especially by goats, remains a major man-made cause of desertification, especially in remote communities in the vast Mongolian hinterland. And detractors say that many desert afforestation projects address just the symptoms of land degradation, not the actual drivers. But Ambassador Kwon is optimistic. "We proved the doubters wrong", he said. "I am so proud of the young people who have come from distant cities to the desert in their thousands with seedling and shovels and the strength of their convictions."

Future Forest's work continues, with plans for a day-long festive march westwards from Beijing later this year that will bring out tens of thousands of Chinese, Korean and Japanese students, political figures and pop stars to celebrate soil preservation, afforestation and the fifth anniversary of the Great Green Wall. The occasion will also see the launch of a long-term village rehabilitation project. Ambassador Kwon aims to start reclaiming the once-fertile land that now lies under the sand.

"In some parts of our project area", he told UNCCD News, "the farmers are returning to their ancestral homelands. The trees are surviving, and new vegetation is even growing up between them. If we give nature a little help, she, too, will come back and give us new life again."

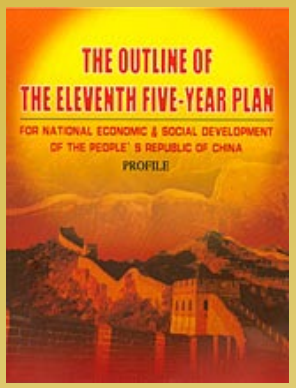
http://www.futureforest.org/english/
See seven-minute video of the Great Green Wall project: http://www.youtube.com/watch?v=bQqSccEwc4M

An "arduous" 50-year war

A vast area of China suffers from severe land degradation. At the end of 2004, authorities say, 27.46% of the national total territory was desertified, affecting 18 mainly northern provinces, including Xinjiang, Inner Mongolia, Tibet, Qinghai, Gansu and Hebei. Much of this area, once traditional grassland, has been lost to drought and overgrazing. By end-2004, official figures say, wind erosion had devastated over 1.8 million square kilometers (180 million hectares) or about 70% of all desertified Chinese land. Water erosion, the second-biggest cause, accounted for another 259,000 square kilometers, mostly in the Loess Plateau of the upper and middle reaches of the Yellow River.

The government of China has marshaled equally vast resources in response, passing the 2001 Law on Desertification Prevention and Control, mobilizing millions of citizens, and making made rural development and environmental improvement a key feature of the 11th National Economic and Social Development Plan (2006 – 2010). China's strategic counteroffensive may have even reversed the trend: according to Chinese figures, desertification and "sandification" went from an average annual expansion of over 10,000 square kilometers in the late 1990s to an average annual contraction of 7,585 square kilometers between 1999 and 2004.

China submitted its first National Action Programme (NAP) under the UNCCD in 1996. The current 2005 version sets daunting objectives. By the end of this year (2010), it aims to have "controlled" desertification in 22 million hectares of land and established 1.7 million hectares of "shelterbelt forest". By 2050, it predicts, the "controlled" area will have grown to 35 million hectares, another 34 million hectares of new forest and grassland will be secured and 19 million hectares of degraded land will have been fenced off for forest and grassland regeneration. The vision is bold, but, says China's National Action Report submitted to the UNCCD in June, 2006, "the challenges ahead are still huge and the task still arduous."



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Video

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Desertification in Andalusia worsens
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About the UNCCD

Developed as a result of the Rio Summit, the United Nations Convention to Combat Desertification (UNCCD) is a unique instrument that has brought attention to the land degradation affecting some of the most vulnerable people and ecosystems in the world. The UNCCD benefits from the largest membership of the three Rio Conventions and is increasingly recognized as an instrument that can make an important contribution to the achievement of sustainable development and poverty reduction.
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