BRINGING ELM TREES BACK TO RURAL BRITAIN

DIRTY OIL: ALBERTA’S TAR SANDS

NEW HOPE FOR UGANDA’S DISPLACED PEOPLE

TREE POWER INSPIRING YOUNG PEOPLE

WOMEN LEAD WAY TO A BETTER FUTURE in Mali

UN’S BLUEPRINT FOR A BETTER WORLD
Will it work?

* 20 MILLION TREES FOR KENYA’S FORESTS *
A VOICE FOR TREES

This 2015 issue of the Trees journal comes at a time of even more accurate information on the state of planet Earth's forests. Both the number of trees and the rate at which they are being lost.

The Earth currently has 3 trillion trees. A lot. But nearly half have been lost since human beings started cutting down forests. The rate of deforestation is starting to fall, with natural forest loss falling from 8.5m hectares per year in the 1990s to 6.6m this century. But we are still losing trees at the net rate of 10 billion per year and the rate of deforestation in the tropics is increasing.

This is leading to an array of disastrous consequences for life on Earth: biodiversity and species loss, soil infertility, land degradation, reduced water catchments and desertification – while also contributing to climate change. The stark image on the front cover is a graphic illustration of how our current economic system rewards the destruction of the natural environment.

As our founder Richard ‘St Barbe’ Baker put it so graphically “If a man loses one-third of his skin he dies; if a tree loses one-third of its bark, it too dies. If the Earth is a ‘sentient being’, would it not be reasonable to expect that if it loses one-third of its trees and vegetable covering, it will also die?”

It is encouraging therefore to see greater recognition of the critical relationship between trees and forests and human well-being by governments of the world. Firstly the new Sustainable Development Goals are being agreed this month at a UN summit in New York. And then in December a key UN climate summit will take place in Paris – COP21 - with the aim of finally agreeing effective action on climate change.

This issue of Trees therefore considers some of the critical issues and key questions. Will this recognition lead to effective action to end deforestation and support for large-scale reforestation and afforestation? Will the communities that depend on and care for the world’s natural forests be given the rights and resources to enable them to manage the natural environment sustainably? Will some of the most destructive extractive projects, like the vast tar sands mines in Alberta, Canada, be outlawed?

We also present some of the positive action being taken by communities across the world. We hear from two ITF partners in Mali and Uganda on their vital work with local communities to improve environmental sustainability and people’s livelihoods. And we look at a project in England (with one of the lowest rates of tree cover in Europe) to restore the elm tree.

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The aim is to unite the world’s countries in a common cause for a fairer society and truly sustainable forestry policies. But can it really change the way we do business?
I am delighted to write the foreword to this year’s edition of *Trees*. As your president and a long-term admirer of the work of the International Tree Foundation, I am pleased to see that 2015 is proving to be such a good year for the Foundation. Trees have been my life ever since I studied in the Forestry Department of Oxford University and began to work with tropical trees.

There has never been a more important time in the brief history of humankind to be planting trees to remedy the deforestation and environmental change that our species has caused. I have travelled extensively in the Amazon region over the past fifty-two years on thirty-nine botanical expeditions - and so have witnessed the loss of huge areas of tropical rainforest. Consequently the work of any organization that is planting trees is dear to my heart. I am particularly pleased that the ITF is engaged in tree planting in Africa, where trees are desperately needed because the forests have suffered the same fate as those of the Amazon. Consequently local people are suffering from the loss of the trees upon which their livelihood depends.

We are approaching a crucial event for the future of our planet, the Conference of the Parties (COP 21) of the Convention on Climate Change that will take place in Paris in December. It is my hope that this will result in definitive action to curb the emission of greenhouse gases. One of the many remedies for reducing climate change will be the restoration of forests and the planting of trees to fix back the carbon from the atmosphere. It is so vital to act on this because not only are we losing trees, but we are also starting to see effects on the world’s remaining intact forests as a result of climate change. As world climate changes and warms, there is increasing evidence of the adverse effect this is having on trees and other organisms.

Amazon ecologist Philip Inearnside predicts that much of the Amazon forest is in danger of die-off from the combined effects of drought, heat and fires within the current century. Some of the area would be transformed into savanna or some type of low-biomass woody vegetation, with greatly reduced biodiversity. All this will be the result of climate change if we do not do something to stop it. The very trees that ITF plant could be in danger if we do not address the broader issue of reducing the effects of climate change.

This does not mean that we should reduce the work of ITF. We need more trees busy photosynthesising to fix the carbon and to provide for the needs of local peoples. Keep up the good work of ITF and plant as many trees as possible this year.

Professor Sir Ghillean Prance FRS, VMH
This July ITF and partners TEMWA and Deki Ltd launched a new four year project in Malawi - The Nkhata Bay Natural Way. Set to benefit marginalised groups in 110 villages, the project will improve health and nutrition and increase income through forest-friendly businesses and micro-enterprises. Local governance of forests will be strengthened through community stewardship of forest conservation.

Nkhata Bay North District, is one of the most underprivileged regions in Malawi, itself one of the poorest countries in the world. More than 60 per cent of the population live below the poverty line and 16 per cent of 15-49 year-olds are HIV positive.

A total of 3,300 direct beneficiaries are being selected. They will be chosen from large households with eight or more dependants, orphan-hosting and female-headed households, families with a member who is HIV positive, and young people aged 18-35. A total of 56 per cent of participants will be women.

Over four years Nkhata Bay Natural Way, which is funded by the Big Lottery Fund and JJ Trust, will directly impact the lives of 24,640 people.

Paul Laird, ITF’s new Programmes Manager, who visited the project for the first time in August said: “Temwa have put together a great team of experienced field workers for this ambitious integrated programme. The field staff have skills ranging from agro-forestry to micro-finance and institution-building, and share a deep understanding of the challenges faced by the local community.

“They have made an excellent start. On my visit I met local community members who are already raising tree seedlings and making plans for community woodlots.

“It was my first visit to northern Malawi, and I look forward to learning more.”

Catriona Baker, widow of ITF founder Richard St Barbe Baker, sadly passed away last November at the age of 97. Catriona’s interest in tree planting stemmed from her upbringing in Mount Cook Station in New Zealand, where her father planted over 600,000 trees. She married Richard in 1959 and lived with him for the remainder of his life.

Before her health failed her, Catriona fulfilled her long-held ambition to write a book about Richard Baker’s life and work, entitled “The Man of the Trees, and other dedicated environmental guardians”. The richly documented work covers the life and ideas of Dr Richard Baker and those who supported his ideas, as well as those continuing to keep his vision alive around the world today.

In an interview for Trees last year, Catriona said she was extremely worried about climate change and the state of Mother Earth.

However she encouraged ITF supporters not to give up hope, saying, “please keep going with your efforts. Involve your family and friends and their friends as well – bring as many people on board with ITF as you possibly can. Keep planting trees and remember to protect and care for the trees you already have.”

A special edition, published for ITF’s 90th anniversary, is available at £42 including p&p and a £10 donation.
To celebrate our centenary we are launching our most ambitious plan ever – to plant 20m trees in Kenya.

This campaign is the biggest in our long history and it has the full support of our Patron, HRH the Prince of Wales. The launch is scheduled for next spring and a target has been set to raise £800,000 between now and ITF’s centenary year in 2024.

To mark this milestone in a fitting way we are focusing on Kenya, the country where ITF forerunner, People of the Trees, was founded in 1922 by Richard “St Barbe” Baker and Chief Josiah Njonjo.

Kenya is one of the least-forested countries in Africa, with less than seven per cent of the land covered by trees. Some of the worst affected areas are the so called “water towers” - Mount Kenya and other once densely-forested mountains seen as crucial for conserving rivers and water supplies.

Plan of Action
Thousands of hectares of deforested land are being identified and surveyed for for replanting in three of five of the key water towers. We are now working on the details with the Kenya Forestry Research Institute and community-based project partners.

In keeping with ITF’s philosophy, community groups will be involved from the start. Systems are being put in place for setting up community tree nurseries and training villagers in tree-planting techniques.

Volunteers including women and children will help raise and plant some five million indigenous trees to reforest mountain areas, in the process helping to conserve water supplies for millions of Kenyans.

Crucially, local smallholder farmers will be given a stake in the success of the project. The plan is for a further 15m trees to be planted on farms and smallholdings, creating a buffer zone around natural forests.

A total of 22m trees will be planted to allow for losses

INITIAL TARGET AREAS

Mount Kenya Forest
Mount Kenya Environmental Conservation (formerly Save Mount Kenya Forest Group) has been working with local communities living near Mount Kenya forest since it was formed in 2007. The group is currently formalising an agreement with Embu county and the Kenya Forest Service to lead the next phase of reforestation. A key part of the agreement is that local people must be involved at every stage - experience shows that this is the most effective way of achieving long-term success.

Mount Elgon Forest
Over many years the Mt Elgon ecosystem has been depleted as trees have been cleared for timber and fuel wood. ITF is partnering with local community organisation, the Sustainable Mobilisation of Agricultural Resource Technologies (SMART) to address these problems. They will be working with 1,000 households to plant 30,000 trees. They will focus on agroforestry techniques which integrate crops with tree-planting, as well as planting of indigenous trees to restore natural forests.

Aberdare Forest
The Aberdare Forest lies in the lower slopes of the Aberdare Mountains, an isolated volcanic range that forms the easternmost wall of the Great Rift Valley. Three quarters of the southern Aberdare Forest has been lost since the 1970s and it now covers less than 1,000 hectares. ITF is supporting the Kangema Youth Group to change this by involving the community in managing the forest and planting 65,000 trees, including 10,000 sycamore figs, in the forest and on neighbouring farms.
In June 2015, Pope Francis called for action on environmental protection in an encyclical entitled Laudato Si – Care for our Common Home. Linking faith to science, Pope Francis highlighted the fact that the poor are worst hit by climate change and environmental degradation. The encyclical criticises consumerism and market-driven economies, which it links to exploitation of the environment and the poor. Its release became a world news event, welcomed by environmental activists, international organisations and Christians alike. He asserts that environmental destruction comes from the same evil that leads to social destruction, concluding: “I urgently appeal, then, for a new dialogue about how we are shaping the future of our planet. We need a conversation which includes everyone, since the environmental challenge we are undergoing, and its human roots, concern and affect us all.”
The first projects have been completed for a major new ITF programme, which aims to instil in young people an appreciation of the vital importance of trees in supporting life on Earth.

A total of 11 primary schools in Yorkshire and Devon have taken part in the Tree Power programme, which provides teacher training, teaching packs and resources for woodland visits and tree planting.

The eight-session teaching plan includes activities such as writing poems about trees and sessions to help understanding of the links between consumer products and deforestation.

The response from teachers and pupils has been overwhelmingly positive and there are high hopes that funding can be raised to roll out the project to many more schools across the UK and abroad.

Participating schools in north Devon were evaluated by Alison Derrick, an educationalist and associate with Devon Development Education.

“Tree Power is a brilliant project and although we’ve made some changes to suit our syllabus, it’s a very powerful teaching resource.

“Many of the children know so little to start with and you can see them learning and coming on in leaps and bounds - and you can see them becoming very passionate about deforestation and issues like palm oil plantations.”

She said teachers felt that children learnt more in the outdoor environment because they could see and touch the subject matter.

“It was also felt that the resource contained a very valuable collection of materials to use either as single lessons or as a whole. The teachers thought that the learning objectives matched the lesson plans very well and that they were clear and precise.

“… It also engaged the parents who showed a good deal of interest in the project and enabled them to be involved. Following the project the schools involved are planting more trees around their schools, using their outdoor space in a more cross-curricular way and incorporating the Tree Power resource pack into their long term curriculum plan.”

For Yorkshire schools a similar evaluation has been completed by Development Education Centre South Yorkshire. (DECSY).

Rob Unwin, Global Education Adviser, said: “The feedback we’ve had from teachers is that they want to pick out teaching packs, planning objectives, activities and resources (from the Tree Power project) and use them again.

“We’ve seen quite positive changes in the kids’ awareness and attitudes.” Numerous studies have shown that encouraging children to go outdoors and experience their natural environment helps with their general development. A 2010 study by Essex University suggested just five minutes of outside activity can increase self-esteem and creativity.

* The first six primary schools to have completed the pilot project during 2014-15 are: Herringthorpe Junior School, Hartley Brook Primary School, Umberleigh Primary School, South Molton Infant School and Highampton Primary School, Pilton Bluecoats Junior School.

“Cutting trees down and not replanting them is not very good because what if they cut down all the trees in the world then the wildlife would not have any homes. I really, really like it because we got to help the wildlife too!” Manos, Year Three

“I enjoyed going to the local park and seeing all the trees and interesting creatures that can live in them,” Oliwia, Year Three

“I liked the part when we got to learn all about the food chains because I never learnt food chains before and after that I realised I really enjoyed it and keep learning about them now!” Drew, Year Three

“I liked it when we learnt about what the trees were made for, for example to make furniture and to block the dams and to make spaces for houses and buildings.” Cleo, Year Three

Identifying tree species

www.internationaltreefoundation.org | September 2015 | trees | 7
An ambitious plan to bring back the majestic elm tree to the British countryside is well underway, with hundreds of elm saplings being planted in rural Sussex.

The Sussex coast is one of the last strongholds of elm trees – largely wiped out by Dutch elm disease in the 1960s and 1970s – and the county is being targeted as a base from which it is hoped a new disease-resistant population can be established.

With the help of ITF funding, saplings are being planted in public spaces and alongside bridleways and footpaths by volunteers and children from local primary schools. The saplings have been propagated from mature elms which have shown no sign of the disease for 40 years.

The plantings have been concentrated in the Cuckmere Valley in and around the villages of Alfriston, Littlington and Friston. Each planting site has been assigned a designated “guardian” to look after the saplings, check for any signs of disease and send updates on the saplings’ development every six months. Local school children and groups of adult volunteers are also being involved to help monitor progress and take part in educational walks.

The project, called Ulmus Maritime, after the tree’s Latin name, is being spearheaded by the Conservation Foundation in partnership with Kew Gardens.

Project manager, James Coleman said: “The aim of Ulmus Maritime is to put the elm heritage in better condition with the support of the public – and to articulate elm trees’ cultural and environmental importance.

“A schools education programme has been teaching pupils the importance of their landscape – and provided an opportunity for schools to play a part in regenerating the elm populations by planting saplings.”

As part of the project volunteers are also collecting seeds from surviving mature elms for the Kew Gardens’ Millennium Seed Bank collection, used as a resource for research and further replanting.

Elm trees, which feature prominently in many of John Constable’s paintings, define the rural landscape perhaps more than any other tree.

They support a diverse range of wildlife and are the only source of food for ten species of moths and butterflies including the rare white-letter hairstreak butterfly.

Elm wood, which can survive in water for many centuries, was used to build the old London bridge as well as locks, groynes and even water pipes.

A virulent strain of Dutch elm disease was introduced to Britain by a shipment of elm from North America around 1967 and the disease, carried by the Dutch elm beetle, rapidly spread across the country.

However thanks in part to the vigilance of local authority maintenance staff – who have been quick to fell or prune diseased trees - as many 40,000 elms still survive along the Sussex Coast. It is speculated that the high survival rate may also be attributed to the salty sea air.

At a recent conference on elms in Brighton organised by the Conservation Foundation experts called for the city’s outstanding collection of healthy mature elms to be given World Heritage Status.

The Conservation Foundation is helping to raise awareness of elms across the UK and has organised tree plantings and community groups and helped set up tree warden networks across the country. Mr Coleman.

“Our aim is to keep interest in elms alive and our main objective is to find viable disease-resistant trees which can support native species like butterflies and lichen and, if we can, plant elm trees throughout the country,” said Mr Coleman.

“Perhaps eventually with ash dieback coming, elms could provide a good replacement for some of the ash we are going to lose”.

The Lock by John Constable. Elm trees were one of the painter’s favourite subjects photo: Wikicommons
MAKING THE CASE FOR COMMUNITY-LED FORESTRY

More than 3,000 delegates converged in Durban, South Africa, this month for the fourteenth UN World Forestry Congress, the main forum for sharing knowledge on conservation and management of the world’s forests.

ITF and three of our partners used the occasion to report on how practical, people-centred forestry works. A summary of the paper, with two case examples, is given below.

COMMUNITY-LED FORESTRY FOR ENVIRONMENTAL AND HUMAN WELL-BEING
By Andy Egan (ITF), Pierre Dembele (Sahel Eco), Arthur Kambombe (Temwa), and Paulino Mugendi (Save Mount Kenya Forest from Extinction Group)

The paper identifies effective community-led approaches to tackling deforestation, raising community awareness, knowledge and skills, and promoting reforestation. This can be achieved through integrated and mutually reinforcing processes that achieve both environmental and livelihood benefits. We recognise that smallholder farmers and rural communities play a critical role in both reversing deforestation and creating sustainable forestry.

Based on our collective experiences, we summarise some of the key features of successful community-led approaches to forestry and agroforestry:

- Appreciation of the way environments and livelihoods are inextricably linked. Interventions must therefore address both aspects to ensure both environmental and human well-being.
- Establishment of community level structures such as VNRMCs, women’s groups and self-help groups that embed ownership and enable effective community level governance.
- Peer to peer learning through identification of lead farmers and farmer-to-farmer exchanges.
- Recognition of the importance of engaging children and young people to ensure long-term sustainability.
- The preservation or restoration of indigenous knowledge and sharing of this knowledge between elders and youths.
- The formation, agreement and implementation of legal regulations to protect forests, promote community management of forests and guarantee land tenure for smallholder farmers.

Sustainable transformation can be achieved by combining three essential elements: Environmental sustainability (agro-ecological approaches, biodiversity conservation, soil fertility, water catchment management and appropriate species selection), improving livelihoods (food security, nutrition, income generation, setting up businesses and building community capacity (training, resources, governance structures, networking, policy alignment).

A key challenge is to consider how best to scale up such an approach while still retaining the essential elements to its success. Can the required resources be transferred from large institutional donors, international NGOs and governments while at the same time transferring the power that accompanies such resources to local NGOs and CBOs? Parallel to this question is the issue of how to strengthen the capacity of these small organisations - and to create structures enabling them to work together at national and regional levels. In this way they can learn from each other and raise awareness of the rights and needs of their communities among policy makers and funders.

The full and referenced version of this paper is available at: http://bit.ly/1LgMr8j

CASE EXAMPLE: MOUNT KENYA FOREST

Save Mount Kenya Forest from Extinction Group (SMKFG) was formed by young people who grew up witnessing the destruction of the forest through illegal felling for timber, fuel wood and charcoal.

SMKFG designed a project to rehabilitate land and water catchment areas covering five hectares of the forest. They provided community members with trees for fruit, fodder and soil enrichment to plant on their farms, while at the same time solving problems of fuel wood scarcity.

Over the past seven years, SMKFG in partnership with other groups, has planted over 50,000 indigenous tree seedlings inside the forest and a further 1.5 million trees on farms, water catchment areas, waterlines and around schools. Over 15,000 community members have been trained in agroforestry techniques and further 30,000 people, awareness has been raised of the importance forest conservation.

cont. overleaf
Why Cycads are Under Threat

Cycads are currently ranked as the most threatened group of organisms on the planet, with more than 60 per cent of known species (in Africa, Asia, Australia, South, and Central America) threatened with extinction. It is estimated that about 10 per cent the extant species are comprised of fewer than 250 mature individuals in the wild.

They are extremely vulnerable due to a combination of very slow growth under a changing climate, separation of male and female plants (dioecy), small populations and dependency on pollinators.

Cycads comprise a relatively small group of gymnosperms with just over 300 extant species distributed in tropical, subtropical, and warm temperate regions. They have been in relative decline since the flowering plants (angiosperms) became dominant about 100 million years ago. A favourite food of the dinosaurs, they are used by people all over the world, both as a regular part of people’s diets and as an emergency source of food in times of famine. In the ecosystem, the species act as hosts for numerous other organisms, and often have specialised interactions with pollinators.

Their decline has been accelerated by unsustainable harvesting and illegal trafficking of high-value mature plants for private gardens. Only two species are widely available in the trade: Cycas revolta (around 90 per cent of exports) and Zamia furfuracea. This means that the other species are highly prized and can be over-traded. For example, between 1983 and 1999, seed of one genus of cycad, *Encephalartos*, had a global trade in excess of $100,000, thus imperilling natural regeneration of plants from seed.

There are regulations to protect cycads under the Convention on International Trade in Endangered Species (CITES), which places strict controls on trade in endangered species (Appendix 1) and threatened species (Appendix 2). Large specimens are in high demand as ornamental plants for landscaping. To make matters worse, habitats are becoming increasingly fragmented as a result of climate change and human population growth. Generally, cycads are slow growing perennials. Gains in height may be as little as 2.5 cm in a year. But they do have great longevity from hundreds of years to possibly beyond a thousand years.
Slow growth also means that cycads have long reproductive cycles and are least likely to rapidly migrate or adapt to a changing environment. In addition the species are dioecious - with separate male and female plants. This means that differential impacts of environmental perturbation on individual plants increases the chance of asynchrony between the male and female cone production, and thus failure to set seed. Finally, pollination can be dependent on insects, whose breeding cycles too are susceptible to environmental conditions.

**Field Work in Africa**

With extensive horticultural knowledge and a capacity to explore seed and pollen biology (germination and storage), the Royal Botanic Gardens are well placed to study cycads in situ and to contribute to the integrated conservation of cycads, including through the maintenance of ex situ collections.

Community activity, such as the setting of seasonal fires to stimulate growth of tender grass for cattle grazing, poses a threat to this species. Threats to Ugandan cycads are particularly high due to a shortage nationally of specialist capacity in conservation skills.

In a new project, the authors are aiming to deliver five broad project outcomes relating to increased biodiversity knowledge, trade level, reducing the demand for wild-collected material, strengthened science and technical capacity, and community involvement (see inset).

★ Hugh is working closely with Dennis Kamoga (Joint Ethnobotanical Research Advocacy, Uganda), Phakamani Xaba (South African National Biodiversity Institute) and Anders Lindstrom (Nong Nooch Tropical Botanic Garden, Thailand).

**Acknowledgements**

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The Royal Botanic Gardens, Kew receives grant-in-aid from Defra and has a Memorandum of Understanding on knowledge exchange with the International Tree Foundation.

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**PROJECT AIMS**

**To increase knowledge on populations**

To record information on population status and trends, plant distribution, population trends, harvesting and global trade. This should help policy makers set sustainable trade thresholds for the three main target species.

**To tackle illegal trade**

The likelihood of trading illegally in Ugandan cycads without being caught will be significantly reduced as a result of the transfer of knowledge on DNA technology from RSA to Uganda, and through better awareness of trained enforcement officers in CITES.

**To reduce demand for wild cycads**

Nursery propagation of three endemic species and use of seedlings in restoration programmes and for sale to the local community should substantially reduce demand for wild-collected cycads.

**To share conservation best practice**

The intention is to learn through greater sharing of conservation methods and sustainable use practice at internationally-significant living cycad collections in south Africa, Thailand and China. This should help bring about best cultivation practice in Uganda. In the longer term it should also help inform conservation management in the Philippines – as well as raising awareness in the global cycad and botanic gardens communities.

**To ensure community involvement**

The aim is for communities to be fully involved in the management of cycad nurseries. This, together with involvement of local school children, should raise awareness of the importance of protecting cycads.

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DINOSAUR FOOD: A good example of an ancient cycad is the Eastern Cape giant cycad (Encephalartos altensteinii) from South Africa which was brought to Kew by Francis Masson in 1775, soon after the establishment of Kew as Royal Botanical Gardens. It has lived in the Palm House since it opened in 1848. Demand for large specimens as ornamental plants is one of many factors accelerating the species’ decline photo RBG Kew
It is possibly the most environmentally-destructive industrial process on the face of the planet. Giant excavators, each one the size of a two-story building, strip off the top layers of soil and sub-soil, then gouge deep into earth’s surface to get at bitumous oil deposits known as “tar sands.”

The tar sands - a mixture of sand, clay, water and bitumen – are then transported in huge 400-tonne trucks before being crushed, processed, and treated with hot water and chemical solvents to make a synthetic crude oil.

The whole operation is dirty, expensive and extremely energy intensive – carbon emissions are up to three times those of conventional oil production.

But mining for tar sands, or oil sands, is destructive for another reason. In order to get at tar sand deposits everything above ground must be removed – and in the Canadian province of Alberta that means trashing vast swathes of ancient boreal forest.

Canada’s boreal forests are one of the world’s ecological treasures. Majestic stands of ancient pine, spruce, aspen and poplar are interspersed with bogs, marshes, lakes and meandering rivers. They are rich in wildlife - including wolf, black bear and the endangered woodland caribou - and they have been a source of food and clean water for indigenous peoples for centuries. Ironically they are also important as natural carbon sinks, capturing twice as much carbon as tropical forests and helping to offset global carbon dioxide emissions.

However to the big oil companies these forests and wetlands are an unwanted encumbrance, referred to in mining parlance as “overburden.”

So to satisfy their thirst for fossil fuels, the forests are being clear-felled and wetlands drained on an industrial scale. The rate of deforestation in the tar sands region is thought to be second only to that of Amazon rainforest.

Furthermore boreal forests, unlike tropical forests, are very slow-growing and it can take as much as a hundred years for trees to mature.

In total mining concessions have been handed out for 55,000 square miles – roughly the size of England or the state of Florida.

The true scale of the destruction can be seen from satellite data, collected and analysed by Global Forest Watch Canada. This shows that nearly three thousand square miles of boreal forest in Alberta’s tar sands region has been cleared or degraded since 2000.

Mike Hudema, Greenpeace Canada’s climate change campaigner, says it is hard to get across the extent of the devastation without witnessing it first-hand.

“When you fly over it for the first time you really do question humanity because as far as the eye can see all you see is this immense destruction and it’s just mining operation after mining operation after mining operation as you can look in every direction of landscape.

“I’ve shown lots of folks around the area and after they’ve flown over many...
of them break down in tears and many of them throw up because really it’s very difficult to comprehend what we’re doing.”

Viewed from ground level, the impact of mining operations is equally shocking. “You’re driving up in the midst of this diverse, immense forest ecosystem and then you reach the operations - and suddenly it feels like you’re in a different world.

“What was this beautiful forest is suddenly a moonscape. It really feels like you’re in some type of post-apocalyptic world because everything as far as you can see is just dead.

Dr Kevin Timoney, a biologist and ecological consultant, has studied the effects of tar sands operations on Alberta’s wildlife and ecology. “When these areas are subjected to industrial activity all natural habitat is lost and all the animals that use that habitat are deceased,” he said.

“Animals can’t just pick up and move elsewhere because those habitats are already occupied so once the habitat is lost everything that lives in that habitat is lost.

“The overall impact is multi-faceted – impact on water quantity and quality, air quality, habitat loss on a grand scale, loss of mammals and migratory birds, loss of trees you name it – it pretty much runs the gamut of impacts you can have including contamination of ground water.”

**Ecological Jewel**
The Athabasca is one of North America’s most beautiful and ecologically-important river systems. It runs through hundreds of miles of prairies and boreal forest then flows into Lake Athabasca via the Peace-Athabasca Delta, the world’s largest inland freshwater delta.

The mining companies have been granted licences to extract large quantities of water for tar sands extraction and processing and as a result river flows downstream have fallen drastically.

For Alberta’s First Nations indigenous population, whose subsistence, culture and religion is rooted in the forests, the effects have been disastrous. Much of the land they have traditionally used for hunting, fishing and gathering is no longer accessible because there is not enough water to safely navigate by boat.

To make matters worse the water that is left is becoming increasingly contaminated. Water extracted by the mining companies is mixed with a cocktail of toxic chemicals including arsenic, cyanide, cadmium, mercury and ammonia to separate sticky bitumen deposits from the sand. Contaminated wastewater or “tailings” are then pumped into vast man-made lagoons so big they can be seen from space.

In an attempt to hold the mining companies accountable, First Nations tribes have filed lawsuits against the Canadian provincial and federal governments alleging 20,000 treaty rights violations.

But they are ranged against the world’s biggest oil companies – including Exxon, BP, Shell, Chevron, Conoco, Total and Statoil - and an administration, led by Prime Minister Stephen Harper, which has gone out of its way to help them.

“Pretty much all of them are there and it’s because there are not a lot of undiscovered or unclaimed oil reserves and depending on whose stats you look at Alberta has either the second or third largest oil deposits in world,” said Mike Hudema.

“Then you have a very oil-friendly government which has offered subsidies to lower start-up costs.

Commercial mining of Alberta’s tar sands began in the late 1960s but it has only taken off in the last ten years.

However grass roots opposition has been growing in Canada and the United States - through which much of the tar sands crude oil is exported – and this
has helped to slow the rate of expansion over the past two or three years.

Tens of thousands of people have taken part in protest marches and plans to expand exports with five new major pipelines have been delayed.

One of them, the Keystone XL pipeline, which would link Alberta with refineries in the mid-western United States, has been vetoed by President Obama. On the proposed route of another, the Kinder Morgan pipeline, the mayor of Burnaby, British Colombia, has vowed to lie down in front of the bulldozers.

The oil companies and their supporters contend that the tar sands bring enormous benefits to the Canadian economy.

If the industry is allowed to pursue its expansion plans the number of people directly employed is predicted to rise from 149,000 in 2014 to 225,000 in 2038.

Over the same period it is estimated it will generate $3.865bn in revenues, bringing in tax receipts of $590bn.

The scale of this ambition is making the tar sands a cause celebre for a global fossil fuel divestment campaign.

American environmentalist Bill McKibben has described the tar sands as the fuse to the biggest carbon bomb on the planet. James Hansen, former director of NASA’s Goddard Space Institute has said that if fully exploited, the tar sands will spell game over for any hope of achieving a stable climate.

But Dr Timoney, who has written two books on the ecological impact of the tar sands industry, believes hearts and minds are beginning to change.

He said: “This is an issue of fairness because what we have now is a situation in which industry and their friends in government disproportionately benefit from extraction of bitumen and the costs of that extraction are disproportionately borne by everyone else.”

In June more than 100 U.S. and Canadian scientists signed an open letter calling for a moratorium on tar sands developments. Whether their call is heeded is now in the hands of the oil companies and the Canadian government.

Tree Cover Loss in Canada’s Tar Sands region

| Tree cover loss 2000-2012 |
| Tar Sands region |

Picture: Global Forestwatch Canada

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ERIEL DERANGER, of the Athabascan Chipewyan First Nation, lives on the shores of Lake Chipewyan, downstream from the tar sands operations.

Our staple foods like moose, caribou, bison, muskrat waterfowl and fish are either disappearing or they’re becoming contaminated through the water system.

Caribou herds have declined by 80 per cent over the past decade while bison numbers have also fallen sharply.

Large game and fish are disappearing and some of the fish that they do catch have lesions, crooked spines or other types of deformities.

Even animals that are being hunted deep in the delta, away from the river system, are being found so that when they’re cut open they smell funny or the organs have liver spots all over them.

“So we’ve seen two things happen: People who continue to eat those animals are getting sick at a higher rate than people who don’t - and the people who don’t aren’t doing so because they’re afraid to eat them.

Many of us don’t want to see this industry continue to expand and grow and degrade the ecosystem but we are tied to it economically. We want to see new economic endeavours so that we don’t have to become dependent on the industry that is destroying our land culture and identity.”

We have signed nation to nation agreements enshrined in the Canadian constitution which are supposed to protect our abilities to continue hunting, fishing, trapping and gathering - and those rights are being abrogated by continuing expansion of the tar sands in the region.

For the people of the north it is a part of our cultural lifestyles to continue practising hunting, fishing, trapping and gathering - not just as a recreational activity but as a part of our cultural procurement and an intrinsic part of our identities.

So the degradation of these ecosystems is really the degradation of our people’s culture.”

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ENDANGERED: Woodland Caribou
photo: D.Darwent/Flickr
Friends of Environment for Development (FED) is a young and dynamic voluntary organisation which works to support underprivileged communities in northern Uganda, an area severely affected by years of bloody civil war.

FED’s founder and Chief Executive, Paul Chankoma, tells their story.

FED is a youth-led organisation, founded in 2010, whose main source of income is the sale of tree seedlings and funds raised from its 100 members. The ITF is the only outside body to have given us grant funding - and their support has made a huge difference to what we’ve been able to achieve on the ground.

Between 2011 and 2014 over 300,000 trees were planted under the ITF-funded Community Tree Planting Project in Agali sub-county. Young people and women were also trained in tree nursery establishment and management and how to carry out tree planting as a viable business. Thanks to the project, many FED graduates are now gainfully employed as tree nursery proprietors, tree grafting and budding technicians as well as fruit farmers and vendors.

Several households are reaping the benefit of their hard work. Some have set up family roadside tree seeds and seedling businesses, while others are organised as successful group businesses.

Success Story
One individual success story is that of Mzee Caxton Milton Okabo. Mzee Caxton received 30 orange tree seedlings from FED three years ago. He has recently reaped 600,000 Ugandan shillings (about $300) from the first harvest of his trees.

With the money earned so far he has been able to buy solar lighting for his home and pay for basics such as food and medical care. He is so impressed with the potential for his new occupation that he is currently planting a further 200 fruit trees - interspersed with other species like banana and pine – and he is confident he will be able to earn even more over future seasons.

Another notable success story is that of Adyaka Youth Alive. The group recently earned seven million Ugandan shillings (around $2,300) in a single season. At the time of writing, three of their members who had dropped out of school due to insufficient funds can now afford school fees and materials and have returned to education.

Furthermore, some of the youth who have been trained by FED are now earning a living from the grafting and budding skills acquired. They are hired as technicians to graft different fruit trees such as mangoes and oranges, earning an average of 100 Ugandan shillings per tree. Emmanuel Ogut is a good example.

Between November and December 2014, Emmanuel grafted a record 5,000 oranges, earning 500,000 Ugandan shillings ($250). He decided to go back to school, where he is now studying geography, entrepreneurship and agriculture. Emmanuel also set up a small nursery in his backyard, where he planted about 4,000 oranges which he has just sold as ‘root stock’ (ungrafted) and has earned a further 1.6m shillings ($533).

Emmanuel is therefore another example of one of FED’s many success stories. He is able to pay his own school fees of $67 per term, buy clothes for himself and buy educational materials and basic necessities. Despite spending nine out of 12 months a year in school, he still manages to support his mother from the earnings.
The trees have brought about financial security to many households. Tree owners are satisfied and optimistic that they will receive a good income in the near future from sales of fruits and woodlot (timber, poles and other wood byproducts).

The beneficiaries can also now use their trees as security for loans from financial institutions and invest in other ventures. Peter Ojuk has put this into practice. In 2013 Peter dropped out of senior school because he could no longer afford the fees, got married and had a child.

Peter is one of the success stories that FED is proud of. With help from the project he planted 550 pines, 50 oranges and 200 omara omara on his farm. Peter later mortgaged his farm so he could buy a motorcycle. He is now using it as a boda-boda taxi, from which he earns 15,000 – 25,000 Ugandan shillings a day ($5-8). Peter is now able to buy food for his family, provide medical care and other basic necessities.

On a more general level, communities have become more aware of the role and importance of trees. As a result, the tree seedling business has seen a massive boom. Nearly every family is trying hard not only to plant but also to protect their trees jealously. This change in attitude and appreciation by the community of the need for trees is therefore a great endorsement of FED’s work.

All these achievements have not come without major hiccups and there have been some monumental challenges. First and foremost, indifferent attitudes. Initially it took a lot of sensitisation and persuasion for the local communities to embrace tree planting. It was perceived as being a “very long term project.” However as we staggered on, mindsets began to change for the better and people began to embrace tree planting. This brought with it a further challenge - albeit a positive one - we became overwhelmed with demand for tree seedling support!

Another challenge has been protecting the planted seedlings from stray animals and bushfires. The problem of damage from animals was eventually solved through lobbying for stricter by-laws.

THE SCARS OF CIVIL WAR

The brutal civil war in Uganda, fought from 1986 to 2006 between government and rebel forces, caused an estimated 100,000 deaths and led to widespread deforestation. As the fighting intensified in 1996, the government was unable to hold back Lords Resistance Army (LRA) rebel forces in northern Uganda and thousands of displaced villagers were moved to internal refugee camps. At the height of the conflict over 1.7m people lived in these camps, which were riddled with crime and disease.

Over the last 20 years Uganda has lost two thirds of its forest, partly as a result of the civil war. Around refugee camps high concentrations of desperate, displaced people led to increased tree felling for firewood. To deter rebel attacks the government also practised a scorched earth policy, clearing all vegetation for several kilometres around the camps and main roads. As displaced populations have moved back to the north, more forests have been cleared to make way for agriculture.

For two decades, the LRA relied on the neighbouring Sudanese government for support and a safe haven – supplied in retaliation for Ugandan backing for the southern Sudanese People’s Liberation Army. As that supply route has been the LRA has become increasingly marginalised. One of the communities where FED is working is Barlonyo, in Ogur Sub County. On February 21, 2014, 300 Barlonyo villagers were massacred and hurriedly buried in mass graves.

The project has helped to build and improve FED staff capabilities. Two of FED’s staff attended a monitoring and evaluation workshop organized by ITF which helped to improve our project management skills.

The project has also helped FED mature as an effective organization. Before it started FED had only just been set up and had little experience of project management. The value of our partnership with ITF has therefore been immeasurable, as it has laid down the foundations upon which every future project will be built.

The value of the project has been affirmed by a local government commendation. The Lira government awarded FED a Certificate of Appreciation for our role in improving young people's lives.

Our experience over the past three years has been an eye opener and we have realised that sometimes the very little contributions we make to people's lives can actually turn out to be the entire world to them. For such people as Mzee Caxton, Emmanuel, Peter and the Adyaka Youth Alive Group members amongst others, life can never be the same again.

To the beneficiaries in this part of the world therefore, the project, small as it is, is a ray of hope. It goes a long way to contributing solutions to their problems locally, and for FED this project echoes President Obama’s assertion:“We are the change we yearn for and we are the people we have been waiting for to bring change”. The local communities simply need to be ‘enabled’ to take charge of their own destinies and the future will be bright.
Many people would think of wood as being the main produce of forests. But they can also be a rich source of other produce for neighbouring communities. Known as non-timber forest products (NTFPs), these include fruits, leaves, roots, fibres, resins and gums and are important to local people’s livelihoods. More widely distributed than timber products, 80% of people in the developing world use these types of forest products for their health and nutritional needs, according to a report by the International Tree Foundation (ITF).

A pioneering initiative by ITF and partner Sahel Eco to improve women’s livelihoods in drought-stricken rural areas of Mali is already yielding promising results. As Naomi Hope reports, it is part of a wider strategy to reduce deforestation, increase food security and improve resilience to climate change.

A group of women from the Tranou community near Bamako in the Fédération Region hold their hand-made henna soaps in a workshop aiming to improve women’s livelihoods in drought-stricken rural areas of Mali. The initiative is part of a wider strategy to reduce deforestation, increase food security and improve resilience to climate change.
to a report by the International Fund for Agricultural Development.

Such an immense potential market makes non-timber forest products important sources of income for rural people, especially women and minority groups who trade in the informal economy.

The Mopti region in central Mali is a rural, dryland area bordering the Niger River, with the Koubaye forest in the South. In the local villages, women are important breadwinners. They are the principal, if not exclusive, gatherers of forest produce, and make up 70% of traders of these types of products.

ITF and local partner Sahel Eco are working across 29 villages with 695 women to improve income generated from commercialisation. Indirectly, this will have positive effects on the conservation and regeneration of trees and the nearby Koubaye forest.

Trees 4 Livelihoods, which runs from 2013 – 2017, is helping women create living from the trade of non-timber forest products in two ways. Firstly, by developing business strategies through market research and organisation. Collectively, women will be stronger in negotiations and able to obtain higher prices.

Secondly, by transforming forest produce into household commodities like soap, beverages, syrup and jam. When the project started two years ago, none of the participants were transforming the products before sale. This not only adds value, but also allows the preservation of perishable stocks. During the long, dry seasons, when vegetation is scarce, there will still be something to sell.

During the initial activities, two women were chosen from each group to undertake training and implement surveys in the market towns of Mopti and Kouakourou. Based on the findings and group discussions, eight products were chosen to transform and commercialise: Grape, henna, tamarin, balanites, jujube, shea, African fan palm and sousoun. All decisions are taken by the groups, ensuring a sense of ownership and motivation that will help sustain development of the enterprises in the future.

The method has proven fruitful. Products are selling well in the villages, as well as on the market in the larger village of Konna. In three months, 750 bars of henna soap have been sold, 620 jujube cakes and over 1300 bottles of tamarin and balanites syrup.

Over the coming two years enterprise clusters will be set-up, creating communication channels between the 33 village groups. As a collective force, these clusters will be much more competitive, and able to commercialise their products further afield.

**Visible Results**

But there are already visible results. Women are earning enough to put aside, and have adopted the Savings for Change model. This initiative developed by Oxfam in sub-Saharan Africa helps rural women constitute collective savings funds. Each week, the groups meet to contribute a small sum into the fund. Once large enough, small loans are made to members over a short period of time, and paid back at a low interest rate.

So far, 20 groups have been formed in the villages. Initial information sessions

**TREES 4 LIVELIHOODS FOUR AIMS AND OBJECTIVES:**

- Encourage small holder farmers in dryland areas to adopt more sustainable land management practices to restore tree cover, reduce erosion and improve soil fertility.

- Restore the productive potential of 55 hectares of highly degraded land and increase access for disadvantages groups, through the implementation of investment plans by municipal and traditional authorities.

- Develop a road map for sustainable and inclusive management of the Koubaye forest. This in turn should lead to greater community involvement in forest management and, in the longer term, greater access to enhanced forest resources.

- Improve the organisation, skills and access to markets for women who harvest, trade and transform non-timber forest products. Increase their incomes and ensure security of access to the trees that they come to depend on.

- Checking out the local market at Fatouma

- Turning forest fruits into syrup

- Forests can provide more than just wood products
were followed by the election of the management committees and definition of the criteria for evaluating a loan request. The groups have collectively saved a total of 945,750 CFA Francs (a little over £1,000), which in turn has allowed individuals to invest in the material needed to transform and conserve the products. A total of £650 has already been given out in loans. Building sustainable livelihoods for women is not simply about increasing income. It fits into the wider aims of the project, which are to increase food security, reduce poverty and build resilience to climatic shocks and long term climate change.

About 80% of Mali’s 15 million population are dependent on farming, fishing and livestock production – all of which are vulnerable to climate shocks. Over the last few years, the Sahel region has been stricken by drought (especially in 2006, 2009 and 2012), triggering a food crisis across the Sahel. Poverty, malnutrition and food insecurity are widespread, and the resilience of communities is low.

Added to this, climate change and overexploitation of forests have had wider effects, and the region has seen a decline in biodiversity. Farmers in the Mopti region report the disappearance or rarity of 16 tree species that were abundant in the 1960s. On the other hand, some drought-resistant species have become common.

In order to improve the lot of rural communities, the underlying causes need to be addressed – including unsustainable land use practices, deforestation and declining soil fertility.

Engaging all community members, including women, is key to tackling these problems. As women start to earn more money from non-timber forest products, they will increasingly value the forests as important resources for their enterprises. Known as the “conservation through commercialisation”, this strategy has the benefit of linking forest conservation with poverty alleviation. Trees 4 livelihoods is working with many forest user groups and local authorities to ensure long-term protection of the Koubaye forest through the implementation of a conservation plan. As it becomes clear that non-timber forest products are economically attractive, it is expected that women will actively support and push for the protection and regeneration of trees.

“BUILDING SUSTAINABLE LIVELIHOODS FOR WOMEN IS NOT SIMPLY ABOUT INCREASING INCOME.”

NUTRIENT-RICH FOREST PRODUCE THE ANSWER TO MALNUTRITION?

Rainforests are rich in biodiversity, and we have used natural produce as medicines, foods, cosmetics and more for centuries. The nutritious value of forest produce recently made the news, when researcher Flora Chandare suggested they could be the answer to large-scale malnutrition in Benin, West Africa.

International aid projects to improve health and nutrition generally consist of food fortification, for example adding vitamins to flour or iodine to salt. But once funding dries up, the situation generally degenerates again. Chandare notes that many local forest plants have high micro-nutrients levels. Baobab fruits, for example, contain six times as much vitamin C as oranges.

If eaten in the right quantity and combination, forest harvests could be the answer to widespread malnutrition in many developing countries. Chandare’s current project is to map Benin’s indigenous plants and work out what combinations will give the best results to improve nutrition.
BLUEPRINT FOR A FAIRER WORLD

It is possibly the most ambitious initiative ever undertaken by the UN. The aim is to unite the countries of the world in a common cause for a fairer society and a new way of doing business that does not destroy the natural environment. Can it really succeed? Richard Sadler reports.

A round the time this magazine is published ministers from more than 190 countries will gather at the United Nations headquarters in New York to thrash out the final wording for 17 Sustainable Development Goals intended to transform the world by 2030.

If you have not already heard about the UN Sustainable Development Goals, or SDGs, you should do soon – because they are widely seen as one of the most significant political initiatives ever taken on the road to a fairer, more equal and environmentally benign society.

The aim is to reach common agreement on a set of objectives for the eradication of poverty, promotion of equal rights, curbing of unsustainable patterns of consumption and protection of biodiversity and natural resources.

The remit is huge – virtually every aspect of economic, industrial and social development is covered. If the final document is approved and signed off, it will be the first time the world’s governments have sat down and agreed on such a comprehensive set of rules and targets since the 1992 Earth Summit in Rio de Janeiro.

Then, as now, a key issue was the wholesale destruction and degradation of ancient forests - from Amazonia to the Congo Basin; from Indonesia to the boreal forests of Siberia and Canada.

Seen from space, our remaining forests are the most visible manifestations of natural ecosystems which are still largely intact. They support 80% of land-based animal and plant life and, as every school child should know, they are the lungs of the planet, creating the oxygen we all breathe. They also help to mitigate the effects of emissions by absorbing and storing carbon dioxide, they are home to 300m people and they provide essential food and resources for a further 1.6bn people.

Western countries have already cleared most of their natural forests. Now those same countries, together with rapidly growing countries like China and India, are driving the destruction of remaining forests in the global South. Soaring demand for meat, palm oil, timber products and biofuels is putting increasing pressure on poorer countries to open up remaining forests.

According to official UN figures 130,000 square kilometres of forest – an area about the size of Greece - is being destroyed every year. And a recent report by the Worldwide Fund for Nature calculates that if present trends continue, 1.7m square kilometres (or 656,000 square miles) of forest will be destroyed by 2020. (see illustration)

The UN’s Sustainable Development Goals are seen by many as the best chance yet of slowing and, ultimately, halting the destruction.

The SDGs are an expanded and updated version of the Millennium Development Goals (MDGs), agreed by governments in 2000 but since criticised as being too narrow and not inclusive enough.

This time an open working group was appointed, made up of representatives of 70 countries, and a draft for the 17 post-2015 goals with 169 targets was published last September. Since then that text has been tweaked and amended during a series of meetings involving civil servants, industrialists and environmental and human rights groups.

Friedrich Wulf, head of international biodiversity policy for Pro Natura, has been advising Swiss government delegates to the SDG negotiations.

“Never before have we had such a comprehensive document that puts in one place all the very different concerns of humanity from human health, to ending poverty together with all kinds of other issues like climate change and biodiversity,” he said.

“Everybody is going to look at their goals and look at others’ goals - and the
question of how we meet those goals in future should at last be put on the agenda of every sector of society."

In the section which deals specifically with forests, Goal 15, the language is encouraging (see SDG Goal 15) but, of course, statements of principle and indeterminate commitments will not by themselves hold governments to account.

And already disagreements between countries over the required pace and scope of change are beginning to emerge.

Some countries, including the UK and Japan, have argued that having 17 goals is too unwieldy. Britain’s Prime Minister, David Cameron, has said publicly he would like to see 12 goals at the most and preferably only 10.

But as things stand all 17 goals remain in place. And it appears that an attempt to postpone some of the key deadlines for action – lead by leading economies including the United States, Canada, the UK, Australia and New Zealand - has been defeated.

However concerns remain about some of the wording of Goal 15. Isis Alvarez, a campaigner for the Global Forest Coalition, has been closely involved in negotiations over the new SDGs at the UN’s headquarters in New York. She is concerned about a little-noticed detail in the draft text which promises to restore degraded forests and “increase afforestation”. Under the UN’s carefully-agreed wording, this misleading term can include expansion of monoculture plantations, one of the main drivers of primary forest loss.

“We are in 2015 and we have already seen the devastation these industrial plantations can cause - for example the destruction in Indonesia for palm oil production - imagine what this could mean for future expansion of these sort of crops,” she said.

“We can expect to see further land grabs or appropriation of lands and it’s clear that forest people will lose access to the lands and resources that they have traditionally used for their livelihoods.” Marie-Ange Kalenga, a respected international development specialist, said the same discredited agricultural practices were already being adopted in Africa.

“This is particularly true of the Congo basin countries who all want to be on the path emerging nations for 2030 or 2025 - but the big question is how are they going to reconcile the fact that they want to grow with the fact that they need to protect the ecosystems and the forest,” said Ms Kalenga, forest governance campaigner for the forests policy lobby group FERN.

“They really want to copy the South East Asian model – the Indonesias and Malaysias of this world - and we’re seeing that it has detrimental consequence not only on the
environment, not only on the wildlife or flora but also on the people who depend on these resources for their livelihoods.”

Global Forest Coalition campaigners point out that the rights of indigenous people are hardly mentioned in the SDG goals and objectives.

They point to a recent gathering of hundreds of representatives of tribal and forest peoples from the UN Permanent Forum on Indigenous Issues at the UN building in New York. They were just down the corridor from the more conservatively-dressed delegates thrashing out the post-2015 goals. But there was no meeting between the two groups – and none of the indigenous forum’s demands for a more active role in the process appear to have been heeded.

“We have a thousand year history of people living in harmony with nature, knowing their resources and knowing how to manage them,” said Isis Alvarez.

“In the post-colonisation era this bond has been broken - and all these impositions have been made saying how you should manage your territory or why this is not your territory any more.

“But there’s a lot of traditional knowledge that’s still there that needs to be protected because it’s valuable wisdom on how resources have been sustainably managed since the dawn of human kind.”

In an attempt to slow the pace of deforestation developed countries, backed by the UN, have employed a market-based solution known as REDD (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries).

The idea is to calculate emissions saved by not cutting down forests, then pay the local population for leaving them undisturbed. Money is raised through the sale of carbon credits, which industry can buy in order to offset their emissions.

But the result, say critics, is that continued pollution by industry has been legitimised. The system of calculating and selling carbon credits is vulnerable to corruption and in many cases only a fraction of income generated goes to forest peoples, with the lion’s share going to traders, dealers and middle men.

Environmental and human rights groups argue that this market-based approach is doomed to failure and there is widespread concern that the UN’s Sustainable Development Goals, well-intentioned though they are, may also be fatally flawed.

“T​he goals are aspirational and indeed they sound nice and they sound very consensual but they fail to basically address the bigger picture at issue which is what kind of development are we trying to promote.”

However she is careful not to dismiss the whole process out of hand.

“The good thing about the SDG process is that it has at least tried to involve a wide variety of stakeholders rather than just have poor or low income countries on one side and developed countries on the other.

“It really has tried to allow an integrated process so we can have common and a universal blueprint for the world.”

Friedrich Wulf also believes there is cause for optimism.

“It can be frustrating but if you look under the surface there are lots of initiatives happening in order to maintain and conserve forests and I’m sure that without these agreements the situation would be considerably worse than it is.”
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Every year, volunteers give their time and enthusiasm to help ITF work towards its vision by raising money and offering their skills, valuable knowledge and time.

Volunteering can be very rewarding and as an ITF volunteer, your role can vary to suit your skills, interest and availability. We will support you by giving you all the information you need to feel confident in the role - be it representing ITF in your local community, fundraising or other work on behalf of ITF.

We are always looking for volunteers to help with communications, marketing and general office duties. Please remember that we don’t expect you to commit forever just for as long and as involved as you’d like. If you have a set period of time or a certain set of skills then we can help find the right opportunities specifically for you.

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Including ITF in your will is an important decision and we will give you the information you need to make the right choices for you. If you would like to talk to us about this issue or to inform us about a legacy, please call or write to ITF.

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Andy Egan, ITF Chief Executive

www.internationaltreefoundation.org
Email: info@internationaltreefoundation.org
Telephone: 01865 318836
International Tree Foundation
Mayfield House
256 Banbury Rd, Oxford OX2 7DE
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