

A ROCHA

INTERNATIONAL NEWS

Planting Huarango seedlings in the dunes - page 4, (Ramón Casana)



- Tropical forests – an A Rocha priority • Planting new forests
- Restoring degraded forests • Studying forest wildlife
- Protecting globally important forests • How you can help us





Dr Martin Kaonga (right) heads up A Rocha International's new Tropical Forest Conservation and Restoration programme. He has lived and worked in several tropical countries: grew up in Zambia, took his first degree in Malawi, then studied agro-forestry in Ghana. Martin moved to Cambridge, England, to study for his MPhil and PhD in Environmental Science and is now based there, occasionally being heard to complain that it's a rather chilly place. The photo was taken on a field trip with Dr Vijay D Anand, National Director of A Rocha India. (Avinash Krishnan)



PLANTING NEW FORESTS

PROTECTING & RESTORING TROPICAL FORESTS -AN A ROCHA PRIORITY

We all know that tropical forests are as important for the health of the planet as the lungs and heart are to the human body. Rainforests suck in carbon and breathe out oxygen. They circulate the heavy rains that are typical of the tropics, preventing or limiting dangerous floods, shaping local weather patterns and even stabilising the global climate. More than half of all terrestrial plant and animal species are in our tropical forests: nuts and nuthatches, elephants and elephant-shrews, toads and toadstools. Sixty million people still live in rainforests, directly dependent on them for much of their everyday needs, whilst the developed world enjoys their products: hardwoods, foods, drinks, rubber, medicines, pets...

Given the importance of tropical forests to people and wildlife, it's not surprising that A Rocha has been focusing on them in Ghana, Kenya, Peru and India. Not just lush, noisy rainforests, but also dry coastal forests, inter-tidal mangrove woodlands and thorny scrub. We believe that because of the rapid pace of forest destruction, we should make community conservation projects there an urgent priority. We've already built

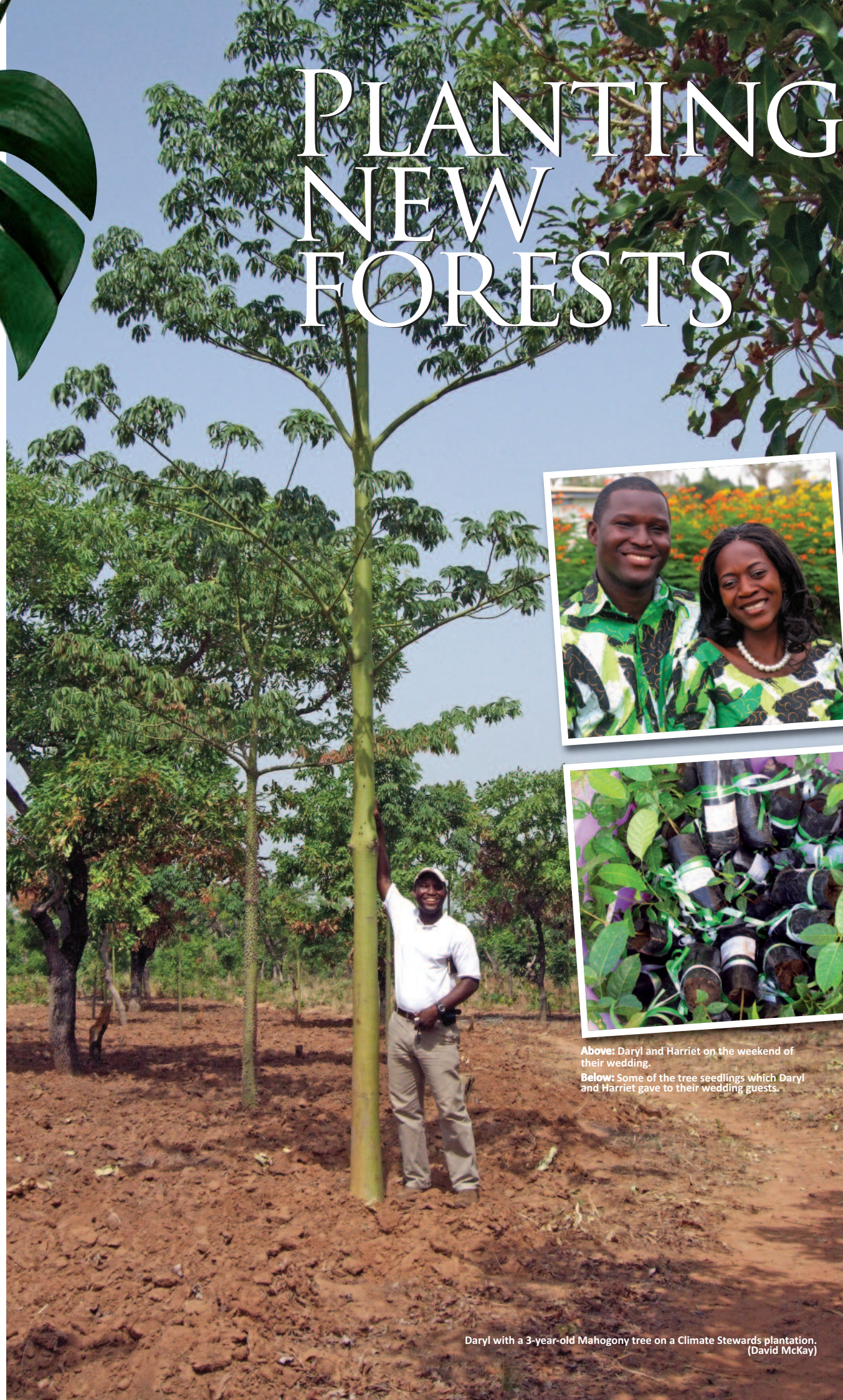
up experience in working with culturally diverse communities in a gloriously diverse range of tropical habitats.

Our Science and Conservation Director, Dr Martin Kaonga, has the vision for a very much expanded tropical forest programme, increasing our impact in the places where we are already working effectively and expanding into new areas, such as the rainforests of Brazil and NE India.

In this new-look issue of *A Rocha International News*, we are for the first time focusing on one topic and appealing for your financial support. Please be generous if you can.

In the following pages you can read just a few typical examples of A Rocha's work. You'll also meet some of our remarkably dedicated and multi-talented team members whose passions and professional backgrounds fit them perfectly for their varying roles. We hope you'll enjoy meeting them, and that you'll want to give them some well-deserved support.

Barbara Mearns, Editor



Above: Daryl and Harriet on the weekend of their wedding.

Below: Some of the tree seedlings which Daryl and Harriet gave to their wedding guests.



Daryl with a 3-year-old Mahogany tree on a Climate Stewards plantation. (David McKay)

In Ghana, where four-fifths of the forest cover has been felled since the turn of the 20th century, A Rocha Ghana and Climate Stewards have planted more than 300 acres since 2007.

Daryl Bosu is A Rocha's Project Manager in Northern Ghana. He oversees the planting of new forests in the north and makes sure that the plantations thrive. Daryl has been passionate about forests for a long time: as a student at Kwame Nkrumah University, Kumasi, where he graduated in Natural Resource Management, Daryl persuaded the A Rocha student group to plant a long avenue of acacia trees on the campus. His friends thought he was crazy – now the university is proud of its lovely shaded area for socialising and seminars! When he got married this year, Daryl and his wife gave 300 Mahogany tree seedlings to their guests, asking them to plant them to commemorate the occasion 'and bring joy to many generations'. They hope to start a trend! Daryl leads a team of four at the A Rocha Damango Office, where his job includes running school wildlife clubs. He's also working for his Masters in Wildlife and Range Management.

However, most of Daryl's time is taken up with Climate Stewards work: Climate Stewards is A Rocha's response to climate change. Donations given at www.climatestewards.net are used to plant trees for carbon mitigation, community benefits and new habitats for wildlife. Daryl prospects for new sites and provides technical support in raising seedlings, planting and aftercare.

Since 2007, about 300 acres of degraded areas have been planted with mostly native species, as well as some fruit trees. These new plantations have been maintained with commitment and dedication by participating schools and communities in both the north and south of the country. Some of the trees are now over 15 feet tall and already Daryl is observing large mammal activity at some of the older sites.

During this year's planting season, from June to August, twenty-five acres of degraded, arid land in Nania-Paga, next to the infamous Pikworo Slave Camp (a tourist attraction in northern Ghana) was planted with four native tree species, including African Ebony *Diospyrus mespiliformes* and Mahogany *Khaya senegalensis*. In the south, twenty-five acres were planted by Nyinhain Catholic Senior High School and the Integrated Community Centre for Employable Skills in Asamama-Abosamso.

A Rocha Peru’s major focus is on restoring native Huarango forest, one of the world’s most threatened ecosystems.

Sarah-Lan Mathez-Stiefel, the part-time Executive Director of A Rocha Peru, is an anthropologist and ethnobiologist who is currently completing her doctoral research on traditional medicinal knowledge in the Peruvian and Bolivian Andes. Swiss by nationality, her professional interest focuses on biocultural diversity, sustainable development and natural resources management, traditional ecological knowledge and social learning processes.

We asked Sarah-Lan to tell us why the forests are such an important part of Peruvian culture:

‘South-eastern Peru is extremely arid: only the Huarango forests can grow here. They are wonderfully adapted to tolerate even the driest conditions, and comprise several *Prosopis* species, thorny hardwoods of the legume family, collectively known locally as *Huarangales*. We know that Huarango forests were an integral part of pre-Columbian



(Amparo Herrera)



Sarah-Lan (Alexandre Bourquin)

RESTORING DEGRADED FORESTS

Planting Huarango seedlings in the dunes - front cover. (Ramón Casana)



cultures. The trees are represented amongst the hundreds of ancient drawings of animals and plants in the Nazca Desert, believed to have been made around 400-650 AD. These ancient peoples made flour from the long seed pods which they then used for bread-like staples and also brewed beer. They gathered the fallen leaves to fertilise their fields and gave them as fodder to their llamas, guanacos and vicuñas. The timber was used for building their homes and for crafting ritualistic objects.

Though most of the once-extensive forests have been felled, the Huarango tree still plays a major role in traditional agriculture on the Peruvian coast. Huarango remnants provide farmers and their stock with much-needed shade and the leaves help to feed their livestock. New Huarango-based products, such as ice-cream, provide additional income.

Poor rural communities use the pods for flour and ‘coffee’ and the timber for firewood or charcoal, whilst the scented, yellow flowers attract bees, enabling people to have hives for honey. It’s not surprising that communities have been eager to work with us in restoring the forests and also reviving their traditional relationships with the *Huarangales*.

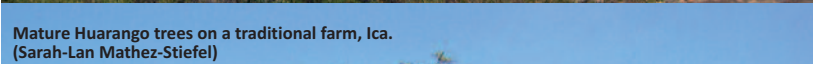
Our reforestation project aims at planting 26,000 Huarango (and other native trees) with the Ica communities over a three-year period, cooperating with landowners who commit themselves to care for the seedlings. This is complemented by research and communication activities, as well as environmental education in universities and high schools. A Rocha volunteers are helping younger children to establish a garden specially designed by them and for them. They meet every Saturday for planting and recycling activities, stories and games.’



(Gopalakrishna S P)



Bannerghatta National Park, with its dry deciduous and scrubby vegetation, is classic habitat for the Asian Elephant *Elephas maximus*. (A Rocha India)



Mature Huarango trees on a traditional farm, Ica. (Sarah-Lan Mathez-Stiefel)



STUDYING FOREST WILDLIFE

The study of species and ecosystems is an important part of A Rocha’s conservation programmes. In India, research is currently focused on human-elephant conflicts.

Dr Vijay D Anand, the National Director of A Rocha India, specializes in large mammal research. He has a PhD in Environmental Science and worked at the Asian Elephant Research & Conservation Centre in Bangalore for five years before founding A Rocha India. His expertise and his commitment to elephant conservation has profoundly shaped A Rocha’s focus.

Vijay, can you remember seeing your first elephant?

I grew up in the small town of Tiruchirapalli, famous for the Rockfort Hindu Temple. Here, in the temple portico, I had my first encounter with an elephant. I was ten years old and fascinated by this magnificent animal, but saddened to see it chained. I longed to set it free. Asian Elephants have been an integral part of Hinduism and its rituals since time immemorial and they are reared in major temples all across India. Later I learned that they are seriously threatened by the loss and degradation of their native forests.

You have been studying elephants for fifteen years – why do they fascinate you?

When I was invited to work with the Asian Elephant Centre I eagerly accepted – this was my opportunity to learn more and do something for them. Since then I have been reading, studying, learning, lecturing and writing about elephants and what impresses me most is their gentleness. They are so calm, and in many ways, so much like humans. The family clan is very distinct with a matriarchal system of herd leadership, the elders nurturing the young ones. During field surveys I was amazed to see how the adults painstakingly invest in the lives of their calves, teaching them which part of the plants to eat, how to sense danger and how to live as a family.

What have you discovered about the local elephant herds?

We have been monitoring a resident population of about 70 elephants and have classified them according to age and sex. We have been following them to identify in which areas of the park they spend most time. Elephants have huge home ranges as they need to find up to 300 kilos of food and nearly 150 litres of water every day. They have favourite tree species which they savour and they have also developed a taste for cultivated crops, as these are very nutritious and are on their traditional migratory routes. So they raid the crops, leading to the tragic death of elephants and people.

How is your research helping to reduce the conflict between farmers and elephants?

A Rocha India has been collecting data on the population: their movements, behaviour and crop raiding patterns, as well as the incidence of attacks, and we have been simultaneously testing chilli-tobacco rope barriers, which keep the elephants out of the fields, as they hate the smell.

We have also been educating people about the importance of biodiversity and its relationship to the survival of the elephants, which are an integral part of the forest ecosystem.

Would you like to do more?

Of course! The National Park is located in the northernmost tip of the Eastern Ghats which is the largest scrub forest in the world. Our vision is to progressively extend our elephant research into this bigger landscape.





The Forest Batis *Batis mixta* can be quite common in the denser, taller, 'mixed forest' in Arabuko-Sokoke. (David Ngala / S Garvie)



PROTECTING GLOBALLY IMPORTANT FORESTS

A Rocha's field study centre on the Kenyan coast is close to four tropical forests of global importance: Arabuko-Sokoke Forest, Mida Creek, Gede Ruins National Monument and Dakatcha Woodland, all classed by BirdLife International as Important Bird Areas.

Colin Jackson is A Rocha Kenya's Conservation and Science Director. Born and raised in Kenya, he graduated from Southampton University with a BSc (Hons) in Environmental Science before joining the A Rocha team in Portugal, where he trained as a bird ringer. In 1994 he returned to Kenya and started up the Nairobi Ringing Group whilst working at the National Museum, then moved to the coast and established A Rocha Kenya at Watamu, an ideal base for protecting some of Africa's most important forests. He's now studying for his PhD, his thesis being on shorebird migration and moult strategies.

We asked him to tell us why the Kenyan coastal forests are of such crucial importance for birds:

'Forest cover in Kenya has always been limited, and so the flora and fauna in the long arc of coastal forest which stretches from Kenya to Mozambique has developed in isolation, leading to very distinctive plant and animal communities. The diversity of wildlife is increased by the wide range of habitats in and around the forests, especially the seasonal wetlands. A very high percentage of Kenya's threatened forest species are found in the coastal forests: and Arabuko-Sokoke is the largest block. Sixty per cent of Kenya's threatened bird species can be seen here.

One of the rarest is the Sokoke Scops Owl. It's awesome to see them roosting during the day. A forest guide checks a roost that he has staked out, and then takes you into the dense thickets, sometimes crawling under bushes to a spot where he motions for you to be quiet and look up: and there's a pair of the tiny owls, staring down at you. If you go at night and you're lucky, they pounce on a beetle while you watch them. Together with the National Museum, during the past year we've been surveying a forest further north, near Dakatcha Woodlands. We've discovered a new population of the owls there (39 calling birds heard during our point counts) and so we're researching their status and distribution. This promises to be a significant site for their conservation if it can be protected from charcoal makers and agricultural expansion.



Sokoke Scops Owl *Otus ireneae* is an endangered species which has small, fragmented populations in only a few East African forests. (Hans & Judy Beste)

Dakatcha Woodland is especially important for Clarke's Weaver *Ploceus golandi*, an extremely rare, black and yellow bird which we are certain nests there: but no one has ever found a nest of this species. The forest has recently been threatened by plans for extensive clear felling for *Jatropha*, but we hope and pray that the protests, in which we've played a part, have been effective. It's vital that we discover where the weavers nest before their breeding grounds are destroyed. It's a race against time. On one of our expeditions we found a weaver nest of an unknown species – they all build very distinctive nests – so we may be getting warm.

Mida Creek is the other site where we mainly focus our work. The creek is fringed by 1,600 hectares of mangroves, of eight species. Crab-plovers *Dromas ardeola* flock here outside the breeding season to feed under the trees and thousands of waders which breed in northern Europe come to winter here. A Rocha has built a hide overlooking the roost, and a 260m-long suspended walkway to it through the mangroves, so that tourists can visit: their fees contribute to eco-bursaries for school children, thus increasing the value of the creek to the communities. We've trained local guides who take delight in educating local visitors, as well as tourists, about the importance of their creek for wildlife.

All of our research, and our education programmes, are targeted at protecting these critically important habitats.



The Trumpet Hornbill *Bycanistes bycanistes* is a noisy and characterful inhabitant of Kenya's coastal forests. (David Ngala / S Garvie)

Please help us to protect tropical forests & their wildlife

There are 3 easy ways of donating to our tropical forest work:

theBigGive.org.uk
helping your donations go further

Go to www.thebiggive.co.uk
and search by keyword: Fighting for forests
or go to:

http://new.thebiggive.org.uk/project/arocho_forests

This December, A Rocha International is joining the Big Give Christmas Challenge. Any donation given through the Big Give website (from 10.00 GMT on Monday 5 to Friday 9 December) will be doubled – at no extra cost to you!

A Rocha International's online appeal

Go to www.arochoa.org/donateforests

Love Forests, Love People, Love A Rocha!

If you have a credit card, you can donate here in almost any currency, from anywhere in the world. You can make a one-off gift, or you can set up a regular payment, which is even more helpful, as it helps us plan with confidence.

Climate Stewards



www.climatestewards.net

Visit the Climate Stewards website to learn about climate change, its causes and effects, and how you can reduce your carbon footprint. You can also offset here and your gift will be used to plant more trees in Ghana, which will shelter crops, improve the land, reduce erosion, lock up CO2 and provide new wildlife-rich forests.

If you can't donate online, or prefer not to, please contact the International Office and we'll advise you on the easiest way for you.



A ROCHA

Christians in Conservation

A Rocha is an international Christian organization which, inspired by God's love, engages in scientific research, environmental education and community-based conservation projects.

The name 'A Rocha' is Portuguese, and means 'The Rock'. In all the countries where we work, A Rocha is identified by five core commitments and to a practical outworking of each:

Christian

Underlying all we do is our biblical faith in the living God, who made the world, loves it and entrusts it to the care of human society.

Conservation

We carry out research for the conservation and restoration of the natural world and run environmental education programmes for people all ages.

Community

Through our commitment to God, each other and the wider creation, we aim to develop good relationships both within the A Rocha family and in our local communities.

Cross-cultural

We draw on the insights and skills of people from diverse cultures, both locally and around the world.

Cooperation

We work in partnership with a wide variety of organizations and individuals who share our concerns for a sustainable world.



A Rocha has National Organizations in 19 countries: Brazil, Bulgaria, Canada, Czech Republic, Finland, France, Ghana, India, Kenya, Lebanon, Netherlands, New Zealand, Portugal, Peru, South Africa, Switzerland, Uganda, UK and USA.

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Registered Charity No. 1136041 Company Registration No. 6852417



A Rocha International is a member of IUCN, the International Union for the Conservation of Nature.