ACKNOWLEDGEMENTS

Tusk would like to thank DHL, ICAP and the Vodafone Foundation for their significant and generous support of PACE, which has been fundamental to its success to date.
Tusk’s mission is to amplify the impact of progressive conservation initiatives across Africa. The charity has earned a reputation for providing a highly efficient solution for funding wildlife conservation programmes. We partner with the most effective local organisations, investing in their in-depth knowledge and expertise. By supporting and nurturing their conservation programmes, we help accelerate growth from an innovative idea to a scalable solution. For almost 30 years, we have helped pioneer an impressive range of successful conservation initiatives across more than 20 countries, increasing vital protection for over 10 million acres of land and more than 40 different threatened species. From the savannahs of Kenya to the deserts of Namibia, we’re working towards a future in which people and wildlife can thrive across the African continent.

PACE was created by Tusk and Siren Conservation Education. PACE is coordinated by UNAFAS Conservation Values Programme. www.paceproject.net www.facebook.com/paceproject.net pace@tusk.org

Siren works to promote conservation of wildlife and human well-being. We create educational materials, activities, talks and experiences which are scientifically cutting edge and beautiful to look at. Our aim is to engage people so they know what is at stake and what they can do to help. Siren opens people’s minds and hearts to Nature and nurtures that connection. www.siren.org.uk

UNAFAS is a Pan African association, registered and with headquarters in Yaounde Cameroon. Its Conservation Values Programme was established in 2004 and works with education and conservation actors to mainstream conservation and environmental education. UNAFAS CVP works with teachers, schools, education authorities, community and workplace groups to develop interest and positive attitudes and behaviours towards the natural environment. UNAFAS has used PACE resources since 2006, became a National Hub in 2013 and with Education & Training Africa has been coordinating PACE since 2016.

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PACE shares simple solutions to environmental problems between African communities. Established through a partnership between Tusk and Siren Conservation Education, and now coordinated by UNAFAS, PACE provides conservation education training and a series of stimulating films and printed materials to teachers and teaching colleges.

The principle behind PACE is to show that everything in our environment is linked and that if we look after our environment then we, the wildlife and other people we share the planet with will all benefit. Central to the programme is a set of multi-media educational materials focused on issues confronting poorer people, including those living with wildlife as they go about their daily lives, all across Africa.

The PACE Pack was first produced in 2004, containing 32 short films, a book, poster, educator’s guide and 80 action sheets. Content is arranged in seven chapters: ‘Living with Wildlife’, ‘Water’, ‘Soil’, ‘Forests’, ‘Energy’, ‘Living by the Ocean’ and ‘Urban Living’. The films are about grassroots projects; they share solutions people have used to overcome problems like human-wildlife conflict, shortage of domestic fuel or clean water, poor farm output, sanitation and waste management problems, small scale income generation, etc.

The book Africa our Home is a beautifully illustrated, bright, durable reader containing background information and context, games, activities and puzzles that draw on traditional wisdom and science. The action sheets provide technical and practical detail.

Since 2004, 14,000 PACE packs (including a French version) have been shared with partners in 34 African countries, provided and delivered free of charge. PACE Hubs across Africa receive and distribute materials. The PACE coordinator works with them and local ‘PACE Champions’, collecting feedback and providing follow-up and support on the ground.

PACE also provides training and supports practical educational projects. PACE is used in classrooms, for early childhood, secondary and teacher education, in education centres and with community groups, in urban and rural settings. PACE materials are used by educators, education authorities and universities, and a wide variety of other beneficiaries including farmers, wildlife rangers, community development workers, traditional leaders, and international and local NGOs. Some use one element, for example the action sheets or films, others use all.

PACE is popular. But are the resources and the way they are used making a difference to conservation and to people’s lives? The evaluation reported here was carried out to assess this, to know what impact we have, to know some of our strengths and our weaknesses, and how we can improve.

What is PACE and why evaluate?

Methodology

We used an online questionnaire, sent to PACE partners by email, followed by interviews and focus groups with selected respondents. We wished to compare our responses with those of a baseline survey carried out in 2016.

The 35-point questionnaire therefore included the same questions and format used in 2016, with sections added to differentiate activity and the results of work done prior to and since the previous evaluation.

Results

We received feedback from 40 partners in 17 African countries, spanning the West, East, Centre and South of the continent.

Respondents included PACE Champions, Hubs and individual partners. Some use PACE over large areas and populations and others in a local area or community: 18% use their PACE materials in >100 communities, while 64% operate in <10, half of those in <5 communities.

Numbers reached in 2017/18

- There were >87,000 new beneficiaries of PACE.
- 1,500 teachers received PACE training.
- >4,400 new communities were reached by PACE.
- Our Champions and Hubs took PACE to >120 new primary schools, >85 new secondary and technical schools, 8 universities and teacher training colleges:
  - The Education Centre at Mokolodi Nature Reserve in Botswana took PACE to 12 new schools and 8,400 learners in 2018
  - Wildlife Clubs of Kenya took PACE to >5,000 learners and 9 new schools in the Rift Valley region
  - Wildlife Clubs of Uganda extended their use of PACE to 20 new schools
  - The Black Mamba’s Bush Baby programme took PACE to 950 learners in 9 new schools in South Africa
  - The Bongo Surveillance Project took PACE to 20 schools in Kenya
  - UNAFAS took PACE to 47 schools in three different regions of Cameroon
- These partners introduced PACE to >10 National Parks & Wildlife Services, and >29 new NGOs and environmental organisations.

DENNIS RAMOKGAU
Head of Mokolodi Nature Reserve Education Centre

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PACE improves the quality of Environmental Education in Schools.

DENNIS RAMOKGAU
Head of Mokolodi Nature Reserve Education Centre
Results (cont.)

Uptake and the impact of PACE

• Our partners estimate that as a result of interventions in the past two years 6,050 people are applying PACE solutions to their local environmental problems and 14,000 are benefitting from this uptake of PACE solutions.

• 58% of partners surveyed report that they or their communities are using solutions they learned about in PACE to help solve their human-wildlife conflict problems.

• More people are monitoring human-wildlife conflict since using PACE than did so beforehand (Graph 1).

• More people are actively protecting wildlife after using PACE than beforehand (Graph 2).

• Particularly heartening is that we are even seeing more people finding ways to earn a living from leaving wildlife alive after learning from PACE (Graph 3).

• 70% report use of soil-related solutions from PACE – using composted organic waste, growing vegetables, using green manure to improve soil and other permaculture and conservation farming techniques that are featured in PACE action sheets and films (Graphs 4, 5 & 6).

• 70% of partners surveyed report that they or their communities are now using solutions from PACE to help solve their water-related problems – protecting water sources and harvesting rainwater using dams and wells.

• 62% of partners report that they and/or their communities are using PACE solutions to help address their forest-related problems – planting trees, reducing deforestation, ensuring their wood comes from sustainable sources (Graphs 7, 8 & 9).

• PACE has introduced solutions to address energy-related problems through the use of fuel-efficient cooking stoves and techniques that reduce kitchen smoke, both of which are important for standards of living and family health. To a lesser extent PACE has also helped introduce the production and use of biogas (Graphs 10 & 11).

• Half of PACE users make use of the Urban Living sections of the PACE pack (Graph 12).

Results (cont.)

1 Monitoring human-wildlife conflict

2 Applying techniques to protect wildlife

3 Finding ways to earn money from leaving wildlife alive

4 Composting organic waste

5 Vegetable gardening

6 Using natural pest control in vegetable gardens

7 Reducing deforestation in wild forests

8 Tree planting

9 Ensuring wood comes from sustainable sources

10 Use of fuel-efficient woodstoves

11 Using techniques to reduce kitchen smoke

12 Planting trees and vegetables for urban greening
• Most interest is in waste management, personal and public health and sanitation, and environmental quality.
• Impact in terms of uptake of PACE solutions in this area concerns resolving problems of plastic and paper waste, improving toilets, tree planting and growing vegetables.
• Plastic and paper (rather than other forms of waste) are given attention because of the usability of a set of action sheets and films with practical activities. These activities are particularly useful in schools due to their low cost and direct relevance to the many needs and constraints in poorer schools and communities (Graphs 13 & 14).
• The average score for the ‘Usefulness of PACE in influencing positive behavioural change within communities’ was an impressive 7.4/10.
• The score for ‘Impact of PACE in helping our project, organisation or community address local environmental problems’ was 7/10.

Examples of changed behaviour and attitudes

Improved empathy and knowledge regarding the environment and all its components.

Kerri Walter, Vaupes, South Africa

Increased love for nature, more teachers and students are interested in visits to our National Parks, and more respect for nature, observed through activities initiated so they use PACE materials, self-started activities like vegetable growing and tree planting in schools, building knowledge and skills that are transferred to their homes.

Denis Agaba, Wildlife Clubs of Uganda

Not littering the environment and starting microprojects in schools.

Wildlife Clubs of Kenya

Reduced charcoal burning since using PACE.

Moses Malemo, Kafue/Zambézi Conservation Initiative

A number of urban schools now separate and recycle their waste. PACE has helped them create new sustainability policies that include up-to-date waste management practices.

Sebakwe

Practicing gardening and other projects.

Peter FOY, Education, Mutare Zimbabwe

As a result of PACE we have revived our permaculture garden and are using it not only for education – it is used as a classroom to guide activities on food production – but also to feed animals in our sanctuary and learners at the Education Centre.

Mokolodi

“We have created a recycling centre which is used to collect and sort waste from the reserve and for lessons on waste management with visiting schools.”

Mokolodi

Requests for more materials

From Uganda Denis Agaba has repeatedly made pleas for more materials: “The copies given to each institution are few compared to the number of users.”

Laure Difffen in Cameroon also noted that “Some teachers have said it will be easy to use the books if each school had a stock so that many children can work with them simultaneously.”

SAVÉ Conservancy noted that their PACE materials had run out, and they needed more.

In Zimbabwe PACE is supporting training over an increasingly wide geographical area, which in turn creates demand from more schools and associations. Likewise in Botswana, as teachers experience PACE at Mokolodi, increasing numbers request copies to use in their routine school teaching.

This demand is in addition to regular requests for materials received from existing partners and new contacts learning about PACE on social media, the website, at conferences and other outreach of Champions, Hubs and the PACE Coordinator.

Mokolodi in Botswana have requested larger quantities to supply to schools and teacher training colleges across the country. Wildlife Clubs of Kenya piloted PACE in one region and would like to introduce it nationally.

Being a PACE Hub has broadened the knowledge base of our educators, teachers and learners.

Mokolodi Nature Reserve, Education Centre

Which elements of PACE are most useful?

Users consider the most useful sections of the PACE pack to be ‘Living with Wildlife’, ‘Water’, ‘Soil’, ‘Forests’ and ‘Energy’.

The book remains the most popular resource in the PACE pack but compared to 2016 there is now increased use of and value given to the action sheets and educator’s guide.

Opinion is unanimous that printed materials are still needed in quantity, but that digital, provided online or on a storage device, should also be provided.

Supplementary information modules developed and provided recently have all been well received. Feedback from reviewers is being incorporated ready for sharing in further modules in July 2019. Sebakwe has already used one of the new case studies as the model for two of its new projects and UNAFAS associates have extended one of the new practicals into a whole new action sheet.

How are PACE resources used?

PACE is widely used in communities as well as in formal education contexts.

“The PACE resources are a very important alternative way to ‘enter’ into a community in our area. Over the years there have been many NGOs and other organisations who have worked with rural communities, all doing similar work on the ground and which often is duplicated. Through the PACE resources, an alternative approach through education and ‘self problem-solving’ is offered which has not been a consideration in the past as far as I am aware. PACE gives a fresh look at rural communities’ problems, they deal with these from a different perspective and I think this is what is important.”

Peter, Carbon Green Africa, Zimbabwe

“The PACE videos have made outreach more appealing and stimulating to learners and teachers. We have other films but they are long, too long, and lack the practical problem-solving focus of PACE.”

Mokolodi

“The posters are always displayed on the walls and everyone reads them and then follows on to ask much about them.”

Wildlife Club of Uganda

“We’ve run practical lessons on how to make home-made pesticides, paper maché and waste management, which have all been added to our programme from PACE.”

Mokolodi

“PACE materials have broadened the Education Centre activity base.”

Mokolodi

Results (cont.)

Results (cont.)
Today, perhaps more than ever before, Africa’s natural heritage – this incredible, sustainable resource for our and future generations – is gravely threatened.

This is why Tusk’s PACE programme is so vital, educating local people to create a sustainable life balance with the wonders of Africa’s nature. Already, it has made a real difference. Going into the future, it represents one of the most powerful tools to strengthen communities, combat poaching and save what is irreplaceable.

HRH The Duke of Cambridge KG, KT Royal Patron, Tusk
**Discussion**

The evaluation design has limitations but has provided some incredibly positive feedback on the extent to which PACE has brought about change, on its strengths, and ways to improve.

The data collected in 2016, including general and specific suggestions indicated where and how we needed to focus to maximise impact. Many recommendations were followed.

As a result of the 2016 baseline survey for example, PACE Champions have been used for greater support and follow-up on the ground. We have also prioritised training and have developed a distribution strategy for conservation education materials, prioritising those who can help monitor and evaluate the use and impact of materials provided. This seems to have been successful as responses to the 2018 survey were more detailed and indicate wider follow-up.

When distributing PACE materials we now also prioritise partners with educator capacity or educator training lined up. In Zimbabwe this has been fruitful in that new Champions are focusing on training and follow-up and also provide far more professional (informative and well structured) plans and reports than we tended to receive in the past. The same is true in Botswana.

In 2016 there was a great call for more educational materials. Also that materials be updated to reflect current environmental and sustainability thinking and issues (for example the new sustainable development curricula, and climate change), and to add more local examples.

Responding to this, in 2017 the statistics in the PACE reader Africa our Home were updated and 2,000 copies of this version distributed in 2018. Two chapters were subsequently revised in full, and prototypes of new materials were completed ready for distribution in 2019.

PACE Champions have played a significant role in producing original content for our new resources as well as reviewing and testing the prototypes.

We have been actively promoting the action sheets, educator’s guide and films and see the result of this as the most useful.

There continue to be requests for training, mentoring and networking.

The 2018 evaluation collected feedback from fewer individuals than in 2016 but included more people who are acting as Hubs, distributing PACE to others, following-up and reporting back to us on outcomes of all those they support.

**PACE in national school curricula**

TUSK and Siren have been keen to see whether PACE could be included in national curricula, which the PACE Champions and Hubs have lobbied for. Most countries have up-to-date and comprehensive curricula, for which PACE is – in almost if not all cases – an excellent teaching and learning resource.

In countries that have official or recommended ‘book’ lists there is value in having PACE included. In Zimbabwe, our PACE Champions found this was a requirement and have secured authority from the Ministry of Education to use PACE in their respective areas. Palloma Pachiti-Mutemi is documenting the use and value of PACE in these areas and will present a file of evidence to the Ministry with the suggestion that PACE is recommended nationally. The challenge then would be how best to supply the large quantities required.

In Uganda there is a call to use PACE nationally; the limitation again is the availability of materials.

The new school curricula across Africa are aligned to the United Nation’s Global Sustainable Development Goals. They were produced in response to these. They require a competency-based, student-centred, inclusive approach to teaching.

Education for sustainable development is really setting a new direction for education, with emphasis on quality education and the inclusion of all people. It focuses on learner outcomes as the main indicator for quality, highlighting the development of competences in learners. However, most teachers do not know how to develop competencies in their learners! PACE is an ideal tool.

The new PACE educator’s guide includes a framework for PACE that highlights the challenges and expectations of African Education Ministries, and then links these to the PACE materials as a practical response to solve the challenges.

It includes links between sections of the materials and topics on curricula, with example lesson plans, games and practical activities for teachers to start lessons.

The PACE action sheets can be used for the projects that secondary school students are now required to complete on a regular basis. This is noted in the educator’s guide and a sample of action sheets are being re-formatted to help teachers.

There is more information on these issues in the 2019 Review of the PACE Champions Initiative and articles on ‘An Education Framework for 2018’ published on the PACE website and LinkedIn page.
Conclusions and the way forward

PACE remains popular
90% of respondents have plans for new practical or educational projects based on PACE.

We are making a difference
600,000 people have benefited from PACE since 2004. PACE creates interest in conservation – both Mokolodi and Sebakwe Education Centres have reported that using PACE materials and activities has given them a reputation that attracts schools and learners to visit.

There is more to do
We need to reach more people in more areas, and to strengthen the use and application of PACE in current sites. It is often teachers in communities living alongside wildlife that are most in need of training. Our materials are useful to them, but they tend to be least able to make maximal use.

The PACE materials need further updating
There has been very positive response to the new materials, and agreement that a continuous programme of resource development with regular new publications is the way forward. ‘Water’, ‘Soil’ and ‘Forests’ were identified as the most important modules to work on next.

PACE Champions and Hubs are working well, although the approach should be refined
PACE now has Champions or Hubs in four countries with plans to establish a fifth in 2019. We need to continue to work closely and to develop the capacity of Champions and Hubs. We can expand what we do with each hub, ideally on a project by project basis, if funding can be secured. The PACE coordinator has invested substantial time in building and maintaining relationships with Champions and Hubs. This should continue and would be improved by periodic field visits for joint project work, such as training and capacity-building events, resource development or team gatherings.

We have increased online networking between Champions and Hubs, and this can be grown and supported by face-to-face gatherings. A fruitful team meeting was held in Cameroon in February 2019 and its success secured the intent to organise regional and then continental team gatherings. Above all we need to produce and share significantly greater quantities of materials, which would ideally increase from 2,000 per year to tens of thousands.

We are making a difference
600,000 people have benefitted from PACE since 2004. PACE creates interest in conservation – both Mokolodi and Sebakwe Education Centres have reported that using PACE materials and activities has given them a reputation that attracts schools and learners to visit.

Over the years there has been a consistent increase in the number of people applying PACE solutions, in relation to wildlife directly (protecting crops from wildlife, protecting wildlife), as well as for improving sustainability of natural resource use and therefore protection of wildlife habitats and our wider ecosystems.

The use of PACE solutions to improve living conditions has been consistent, reducing kitchen smoke, and through the use of fuel-efficient cookstoves, as well as introducing biogas. Using solar cookers in schools to demonstrate renewable energy principles and options also continues to be popular. Improving standards of living makes communities more able to participate in conservation.

There is a need for training on the ground
There are consistent calls for training. After using PACE in rural areas of Zimbabwe, Palloma Pachiti-Mutemi noted that “People appreciate the PACE materials but some just do not know how or where to start.” She believes that in order to make good use of resources it is important that in areas where teachers have limited educational experience, we should only provide materials if training and support can also be offered. There is also a need to focus on those who are able to make good use of materials independently.

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