

## Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2020**

### Darwin Project Information

Project reference	25-003
Project title	Conservation social networking, ecotourism and land-use planning in Maputaland
Countries	Eswatini (Swaziland) and Mozambique
Lead organisation	DICE, University of Kent
Partner institution(s)	All Out Africa, ANAC, Izele, KUWUKA JDA, ENTC, UEM, UNESWA
Darwin grant value	£294,449
Start/end dates of project	July 2018 – March 2021
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	April 2019 – Mar 2020 Annual Report 2
Project Leader name	Bob Smith
Project website/blog/social media	<a href="https://izele.org/projects/278">https://izele.org/projects/278</a>
Report author(s) and date	Bob Smith, 30/4/2019

### 1. Project summary

Maputaland is a global biodiversity hotspot, prime ecotourism destination and home to some of southern Africa’s poorest people (Figure 1). Lack of alternative livelihoods has led to habitat loss through unplanned subsistence agriculture, so in response the Eswatini, Mozambique and South Africa governments launched the Lubombo Transfrontier Conservation Area (TFCA) initiative in 2000. This aims to turn subsistence farmers into ecotourism professionals, tackling poverty and biodiversity loss by improving infrastructure, training local people, and expanding the conservation area network. Our previous Darwin-funded project (Ref 12006) developed the Maputaland conservation planning system to inform this work, helping establish 30,000 ha of state conservation areas and guide a US\$6.5 million conservation investment strategy.

The TFCA has achieved many of its ecotourism goals in South Africa, creating thousands of jobs and new community conservation areas, especially through increases in independent, self-guided tourism. Success in Eswatini and Mozambique depends on extending these benefits but: (a) self-guided ecotourists are largely unaware of options outside South Africa; (b) most of their state and community conservation areas lack capacity to promote themselves, and; (c) the current Maputaland conservation planning system does not include new community proposals for ecotourism on their land. Without tackling this, the recently completed tarred roads and Maputo–Katembe Bridge will increase the spread of agriculture and habitat loss, rather than

boost visitor numbers and encourage communities to set aside important areas for biodiversity and ecotourism. In response, this project aims to:

1. Expand the Izele online conservation social network ([www.izele.org](http://www.izele.org)), which was launched in South Africa in August 2017 as the first online social network for conservation, so that it includes Eswatini and Mozambique, building capacity so their conservation areas and ecotourism enterprises can share information and expertise.
2. Empower practitioners to promote their conservation area- and community-based ecotourism enterprises through Izele, creating growth in wages and job opportunities.
3. Identify priority areas for biodiversity and community-based ecotourism to inform ongoing transfrontier conservation initiatives, updating the Maputaland conservation planning system and building capacity so it becomes an important component of decision making.



The project is based in the Maputaland Centre of Endemism in Southern Africa. Most of the work focuses on the Eswatini and Mozambican sections, although the Maputaland conservation planning system and zoning plan will also include the South African section.

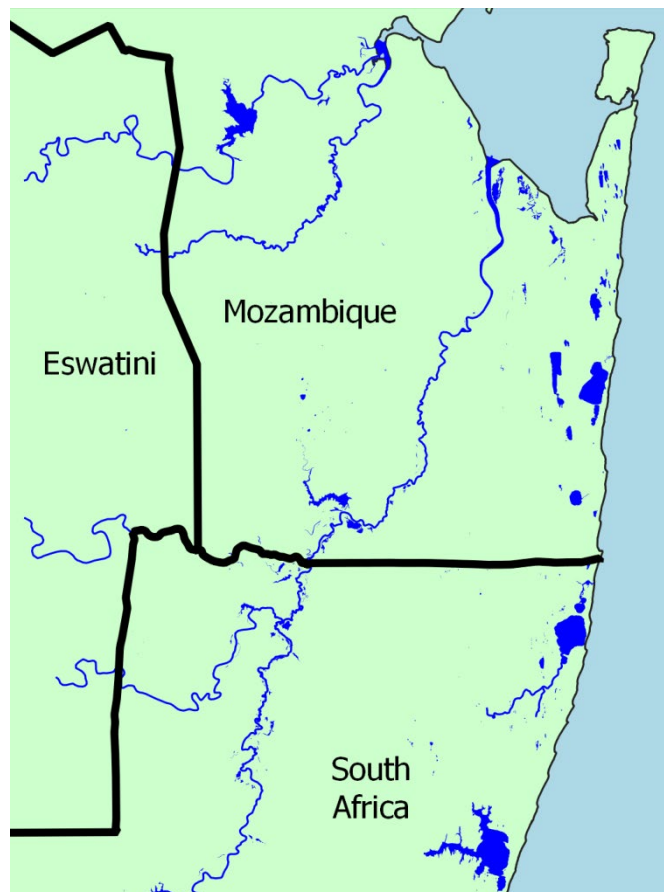


Figure 1: Maps showing the project location in Eswatini, Mozambique and South Africa.

## 2. Project partnerships

### **Background**

The project is a partnership between eight main organisations. The Durrell Institute of Conservation and Ecology (DICE) at the University of Kent is the lead partner, and responsible for leading on project management and capacity building. Izele CIC is the other UK-based organisation and is responsible for maintaining the Izele online social network and building its functionality. The remaining six organisations have distinct responsibilities, three in both of the project countries. Our NGO partners are All Out Africa (Eswatini) and KUWUKA JDA (Mozambique) and their role is to sustain the development of the Izele networks in Maputaland, encouraging and providing training and technical support so the different conservation areas, groups and businesses can create pages. This also includes collecting data on where local communities are interested in conserving land to support ecotourism and collecting monitoring

data to measure the impact of adding ecotourism ventures to Izele. Our academic partners are the University of Eswatini (UNESWA) and Universidade Eduardo Mondlane (UEM) in Mozambique, and their role is to lead the spatial analysis component of the project to update the Maputaland conservation planning system and produce the land-use zoning plans. Our government partners are the Eswatini National Trust Commission (ENTC) and Administração Nacional das Áreas de Conservação (ANAC) in Mozambique. They are responsible for helping create Izele pages for the state protected areas and providing input and advice into developing the Maputaland conservation planning system and producing the land-use zoning plans.

The partnership developed from one that formed as part of a previous Darwin Initiative project that involved the two government and three academic partners. They recognised the need to update the Maputaland planning system to include relevant data on community-based conservation areas and ecotourism. The Eswatini and Mozambique partners suggested that the two NGO partners would be best suited to work on a joint project and supported the inclusion of Izele CIC as recommended by DICE. All the partners developed the project proposal and are involved in planning, monitoring and evaluation and decision making.

### ***Achievements and challenges in Year 2***

The project partnerships in Year 2 have been generally successful. DICE, Izele CIC, All Out Africa and KUWUKA JDA worked together to develop the Izele online social network in Maputaland and support stakeholders to create pages. UEM, UNESWA and DICE have worked together to lead on developing the Maputaland conservation planning system, although some of the capacity building activities in Eswatini have been delayed because Professor Ara Monadjem from UNESWA is currently on study leave. ENTC and ANAC have provided support throughout, helping to build the Izele network and produce the conservation planning system, although ANAC's support has sometimes been limited by lack of capacity and staff changes. All these main partners have been involved in project planning, monitoring and evaluation and decision making, aided by monthly online meetings with the whole group, or sub-groups when this was not possible because of schedule clashes or Internet problems.

We have also involved a number of other institutions, local communities and technical specialists who are not formal partners. As part of developing the Izele network in Eswatini we engaged with the Eswatini Tourism Authority to seek advice and encourage participation, we have worked with Big Game Parks and helped them create pages for the three protected areas that they manage. As part of developing the Izele network in Mozambique we have worked with leaders from the Matutine and Marracuene Districts to encourage ecotourism ventures to create pages. We have also worked with members of the Shewula and Mhlumeni communities to develop pages for their ecotourism ventures, and more broadly with 14 other community-based ecotourism ventures in the two countries.

For the conservation planning component, we have involved a number of other groups and organisations. Part of this has come through building on existing partnerships, especially with Ezemvelo KwaZulu-Natal Wildlife to inform the South African section of the Maputaland conservation planning system, and with the Peace Parks Foundation to inform their ongoing work to create new conservation areas and community-based conservation projects around the Maputo Special Reserve. In addition, we have greatly benefited from the links developed by Hermenegildo Matimele, who is undertaking his PhD at DICE on spatial conservation prioritisation in Maputaland and Mozambique, funded by the Royal Botanic Gardens, Kew. Hermen is Curator of Mozambique's National Herbarium at the Institute of Agricultural Research (IIAM) and Co-chair of the IUCN-SSC Southern African Plant Specialist Group. Through him we were involved in the project led by the Wildlife Conservation Society to identify Key Biodiversity Areas in Mozambique, funded by USAID. Hermenegildo also collected field data on Maputaland-endemic plants in Maputaland with the help of our partners and other experts from the Southern African Plant Specialist Group. Finally, Bob Smith and Hermenegildo Matimele provided guidance and support to a project run by the UNEP World Conservation Monitoring Centre and the South African National Biodiversity Institute that is providing guidance to several African countries to build their systematic conservation planning capacity.

### 3. Project progress

#### 3.1 Progress in carrying out project Activities

##### ***Output 1 activities: increased promotion of conservation areas using Izele***

1.4 and 1.5 All Out Africa and KUWUKA JDA continued to encourage conservation area managers to create Izele pages and provided support for people wanting to enhance their pages. In particular, the state organisations responsible for managing conservation areas in Maputaland produced pages (ENTC and Big Game Parks in Eswatini, ANAC in Mozambique). We also had progress in encouraging conservation areas outside of Maputaland to join Izele, so that Gorongosa National Park and Niassa National Reserve also created pages. In addition, we increased our social media campaigns on the Izele [Facebook](#) and [Twitter](#) accounts, helping raise the profile of the specific conservation areas.

Izele CIC added, removed or changed 65,000 lines of code to the Izele code base to add the new country page, species and ecotourism functionality to the Izele website.

Most of the main activities for this Output were completed in Year 1 as planned, so in Year 2 we focused on encouraging people to create pages as part of activities related to Output 2 and 4, or through one-to-one discussions. We do need in Year 3 to put more effort into encouraging people to add comments on their pages. This will be helped by the recent addition of functionality so that people can add photos to their posts.

##### ***Output 2 activities: increased promotion of ecotourism using Izele***

2.3 We finalised the ecotourism functionality in Izele based on two main components. First, we produced the Amenities tab that lets page managers for conservation areas and conservation businesses share text and information on their accommodation, food, shopping and activities (see section 3.2 for details). Second, we added functionality to all maps so that people can search for the availability of the different activities, accommodation, food and shopping.

2.4, 2.5 All Out Africa and KUWUKA JDA led on encouraging conservation areas and ecotourism businesses to create pages and add details about their ecotourism amenities. This included workshops on 16<sup>th</sup> October 2019 at Lobamba King Sobhuza II Memorial Park, Eswatini and on 6<sup>th</sup> May 2019 in Ponta d'Ouro, which launched the new Izele ecotourism functionality included training on using the new functionality and also provided feedback on making Izele more user-friendly (Figure 2).

2.6 All Out Africa and KUWUKA JDA led on working with community-based organisations to produce pages for the following community-based groups: Ezulwini handcraft market, Lubombo Man and Biosphere Reserve, Mahlanya Fruit Market, Malolotja Soapstone Carvers, Mantenga Nature Reserve and Cultural Village, Master Artworks Art and Craft Center, Mhlumeni Bush Camp, Rainbow Angel gallery, Royal Swazi Craft Market, Shewula Mountain Camp, Swazi Candles, Swazi Village Home Stay, Thandabantu handcraft market and Vuvulane food market in Eswatini; Estufa Comunitária and Xigubo de Bela-Vista in Mozambique.



**Figure 2: Photos from the two workshops to train people how to use Izele and the new ecotourism functionality in Eswatini (left) and Mozambique (right).**

Additional. A DICE MSc student Katie McNie did her six-month research project on community-based ecotourism in Maputaland, interviewing communities working at the Mhlumeni Bush

Camp and Shewula Mountain Camp in Eswatini and the Maputo Special Reserve in Mozambique.

This work mostly went to plan, although it took longer to produce the Izele functionality than expected and this had some knock-on delays, especially with measuring user satisfaction. Based on this, we will continue with activities 2.4, 2.5, 2.6 in Year 3, which will be supported by a University of Kent Global Challenges Research Partnership Development Fund project that Bob Smith successfully applied for in November 2019.

**Output 3 activities: producing the Maputaland conservation land-use zoning system**

3.1 We produced the new Maputaland conservation planning system by dividing the region into a series of planning units, incorporating the protected area boundary data provided by the project partners. We then ran an expert workshop to produce the list of conservation features to include in the planning system, comment on draft distribution maps and identify which species are associated with each landcover type and which species depend on high intensity conservation management (Figure 3).

3.2 After the workshop we updated the distribution maps, using newly collected distribution data for the 43 plant species, set preliminary targets and undertook a draft gap analysis to measure how well the existing protected areas meet targets for the 46 ecosystem types and 93 important conservation species. This report has been shared with relevant experts so in Year 3 we will finalise the targets that will be used in the spatial conservation prioritisation and land-use zoning analysis.



**Figure 3: Gap analysis workshop at Ponta d'Ouro, Mozambique where experts from Eswatini, Mozambique and South Africa helped produce distribution maps and set targets**

Additional. Hermenegildo Matimele carried out 2 months of fieldwork collecting plant distribution data throughout Maputaland, with assistance from other plant experts from Eswatini, Mozambique and South Africa. He also provided a great deal of expert input into the USAID-funded project identifying Key Biodiversity Areas in Mozambique.

Additional. We worked with the Peace Parks Foundation to provide preliminary results from our gap analysis to inform their new work identifying new locations for community-based conservation around the Maputo Special Reserve and Licuati Forest Reserve in Mozambique.

This work mostly went to plan, although the gap analysis workshop took place in the second half of Year 2, rather than the first half, causing subsequent delays that meant we were only able to produce a draft gap analysis report. This report will be finished early in Year 3, once we have had relevant feedback.

#### **Output 4 activities: building capacity in conservation social networking and planning**

4.1 We provided training in using Izele through the workshops described in Activity 2.4 and updated the help pages in Izele to reflect the changes to the functionality. In addition, we had meetings with the Ministry of Tourism and Environmental Affairs, Eswatini Tourism Authority and officials from Matutine and Marracuene Districts to promote Izele. All out Africa and KUWUKA JDA also worked on a one-to-one basis to help organisations create pages in Izele.

4.2 Nkosikhona Hlatshwayo was selected by UNESWA and DICE as the person from Eswatini to undertake the MSc in Conservation Biology at DICE. He was selected based on his academic excellence and aptitude for using GIS software, and came to the UK in September to begin his course. He will do his project on using systematic conservation planning to identify priority conservation areas within the newly established Lubombo Biosphere Reserve, which forms the Eswatini section of Maputaland.

4.3. UEM ran a 1-day workshop in Maputo on systematic conservation planning and Marxan that was attended by a number of conservation practitioners and academics (Figure 4). Bob Smith produced updated CLUZ tutorials and a new YouTube video and worked on producing a new version of CLUZ that links to Marxan with Zones, the more sophisticated version of Marxan that we will use to identify priority areas for both conservation and ecotourism.



**Figure 4: Photos from the Maputo workshop to train conservation researchers and practitioners in systematic conservation planning and the CLUZ and Marxan software packages.**

Additional: Bob Smith presented a poster at the International Congress of Conservation Biology on 22<sup>nd</sup> July 2019 in Kuala Lumpur, Malaysia that provided details on Izele and CLUZ and explained how they will be used to promote community-based ecotourism and guide land-use zoning for conservation in Maputaland.

Additional. Another MSc student, Nuwanthika Dharmaratne, will also do her 6-month research project on Maputaland, developing maps of agricultural opportunity cost and ecotourism suitability that will feed into the planning system. Nuwanthika is from Sri Lanka and funded through a DFID Commonwealth Scholarship, so is keen to learn skills in conservation planning that she can apply at home.

This work mostly went to plan but we decided to run the Eswatini CLUZ and Marxan tutorial in Year 3 because Ara Monadjem from UNESWA was on study leave. We also need to produce some more Izele YouTube videos, to account for the new functionality, and produce an additional YouTube video on CLUZ and Marxan.

## 3.2 Progress towards project Outputs

### **Output 1: increased promotion of conservation areas using Izele**

Our project progressed well in terms of Output 1, as shown by our completion of indicators 1.1 and 1.2 and progress towards completing indicator 1.3. Details are given below, together with information on additional outputs.

1.1 We successfully ran two training workshops for conservation practitioners in Year 1 so that they can use Izele, and we built on this in Year 2 by including training components in two workshops that were held as part of Output 2. This means that 170 people have been trained to use Izele, 88 from Eswatini and 82 from Mozambique, of whom 98 are men and 72 are women. This compares well with our target for the measurable indicator of training 100 Maputaland conservation practitioners, including 50 women.

1.2 We met our target that at least 16 state, private and community conservation areas in Maputaland have produced pages on Izele. We now have 16 Maputaland conservation areas in Izele, together with 10 protected areas outside of Maputaland (7 in Eswatini, 3 in Mozambique) However, 5 of these pages have little information about their species and spatial location and so in Year 3 we need to continue to encourage them to update their information. This additional work will be supported through a University of Kent Global Challenges Research Partnership Development Fund.

1.3 The number of people commenting on their pages has been disappointing, as we have 41 so far compared to our target of 100. We will focus on surpassing that in Year 3, which will be made easier by the recent addition of functionality to Izele so that people can add photos to their posts. We also plan to run a competition in Year 3 to encourage people to use their pages more and this should have a significant effect.

Additional. We added new functionality to Izele based on user feedback that will increase promotion of the conservation areas. In particular, the country pages that we have created for Eswatini and Mozambique make it easier to find pages for the different conservation areas (Figure 5).

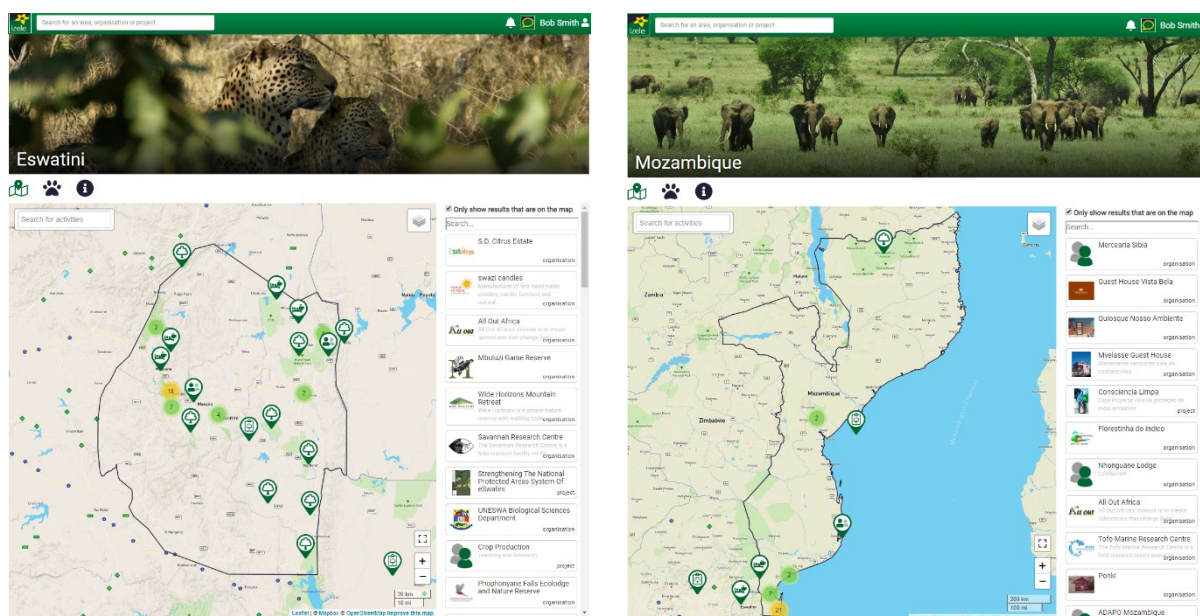
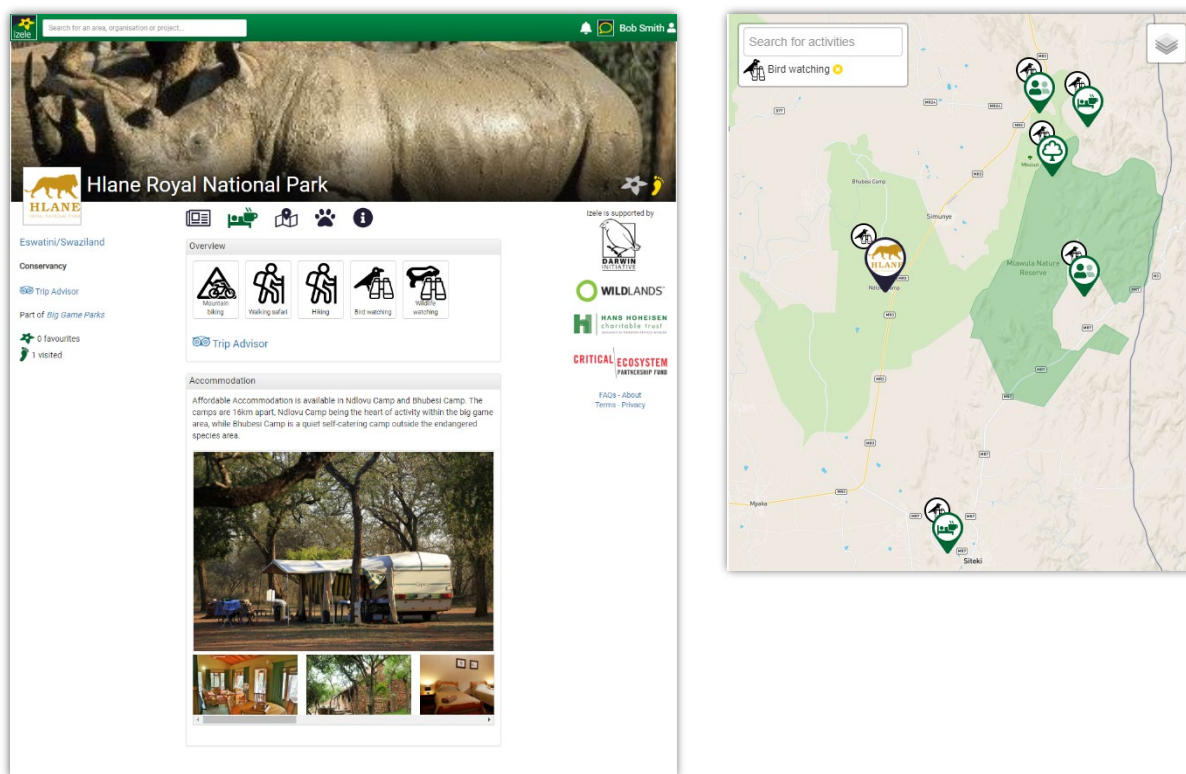


Figure 5: Izele screenshots showing the country pages for Eswatini and Mozambique

### **Output 2: increased promotion of ecotourism using Izele**

Our project progressed quite well in terms of Output 2, as we had completed indicator 2.1 in Year 1 and completed indicators 2.2 and 2.3 in Year 2. We still have to fully achieve the other indicators. Details are given below, together with information on additional outputs.

2.2 Based on user feedback that came from the initial workshops in Year 1, and also subsequent individual comments, we added functionality and updated the Amenities tab so that page managers can now add a range of information about the activities that they offer and the accommodation, food and shopping opportunities that they provide (Figure 6). We also added new functionality to the Izele maps, so that visitors can plan their holidays by seeing where different activities are available (Figure 6).



**Figure 6: Screenshots from Izele showing the updates Amenities tab and new functionality so that people can see the availability of specific ecotourism activities on the map.**

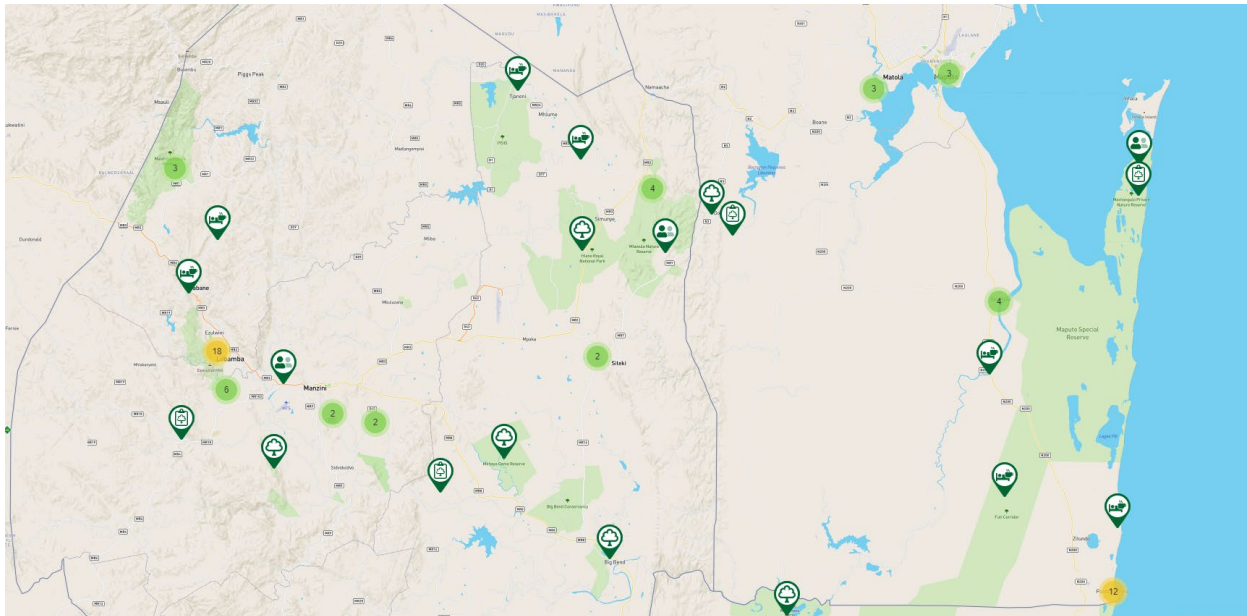
2.3 Through the Eswatini and Mozambique workshops, we trained 92 people how to use the ecotourism functionality in Izele. The Eswatini workshop was attended by 51 people, including 26 women, and the Mozambique workshop was attended by 41 people, including 15 women. We also conducted 1-1 training with 15 people from organisations that were not able to attend the workshops. Participants included representatives of the seven community-based ecotourism enterprises, including staff working in 18 community-based ecotourism enterprises. This compares well with our target for the measurable indicator of training 40 Maputaland conservation practitioners, including 20 women.

2.4 Through the workshops, meetings and subsequent publicity, we encouraged 96 ecotourism-based organisations (53 in Eswatini, 39 in Mozambique and 4 transnational) to create Izele pages and add the Amenities tab to share information about the goods and services they provide (Figure 7). Of these, 57 are found in Maputaland (19 in Eswatini, 36 in Mozambique and 2 transnational), which means we have not yet met our target of ensuring 80 pages have been created. The main reason for this is that many of the ecotourism ventures in Mozambique are owned by people living in South Africa, and their staff members have been reluctant to create pages without the owner's permission. To overcome this, we are putting together a list of contact details for these foreign-owned ventures and will be contacting them in the next couple of months.

Two of these pages are for community projects run by the Mhlumeni and Shewula communities, falling short of the target that we would have pages for four community projects. This reflects the fact that some of the community-based projects identified before the project



began have been slow to establish, so in Year 3 we will revisit this target and submit a change request form if necessary.



**Figure 7: Screenshot from Izele showing the location of the different Izele pages. Clusters of pages, such as the ecotourism centre of Ponta d'Ouro in Mozambique on the South African border, are represented with a symbol showing the number of pages.**

2.5 Delays in launching all of the ecotourism functionality in Izele meant that we decided to postpone the user satisfaction survey until Year 3.

2.6 The number of people commenting on their pages has been more disappointing, as we have 32 so far compared to the target for the measurable indicator of 100. We will focus on surpassing that in Year 3, which will be made easier by the recent addition of functionality to Izele so that people can add photos to their posts. However, meeting this target might take up to the end of the project because of the impacts of the COVID-19 pandemic.

Additional. The DICE MSc student Katie McNie produced her dissertation on 'The Perceived Impact of Community-Based Ecotourism on Local Livelihoods in Maputaland.

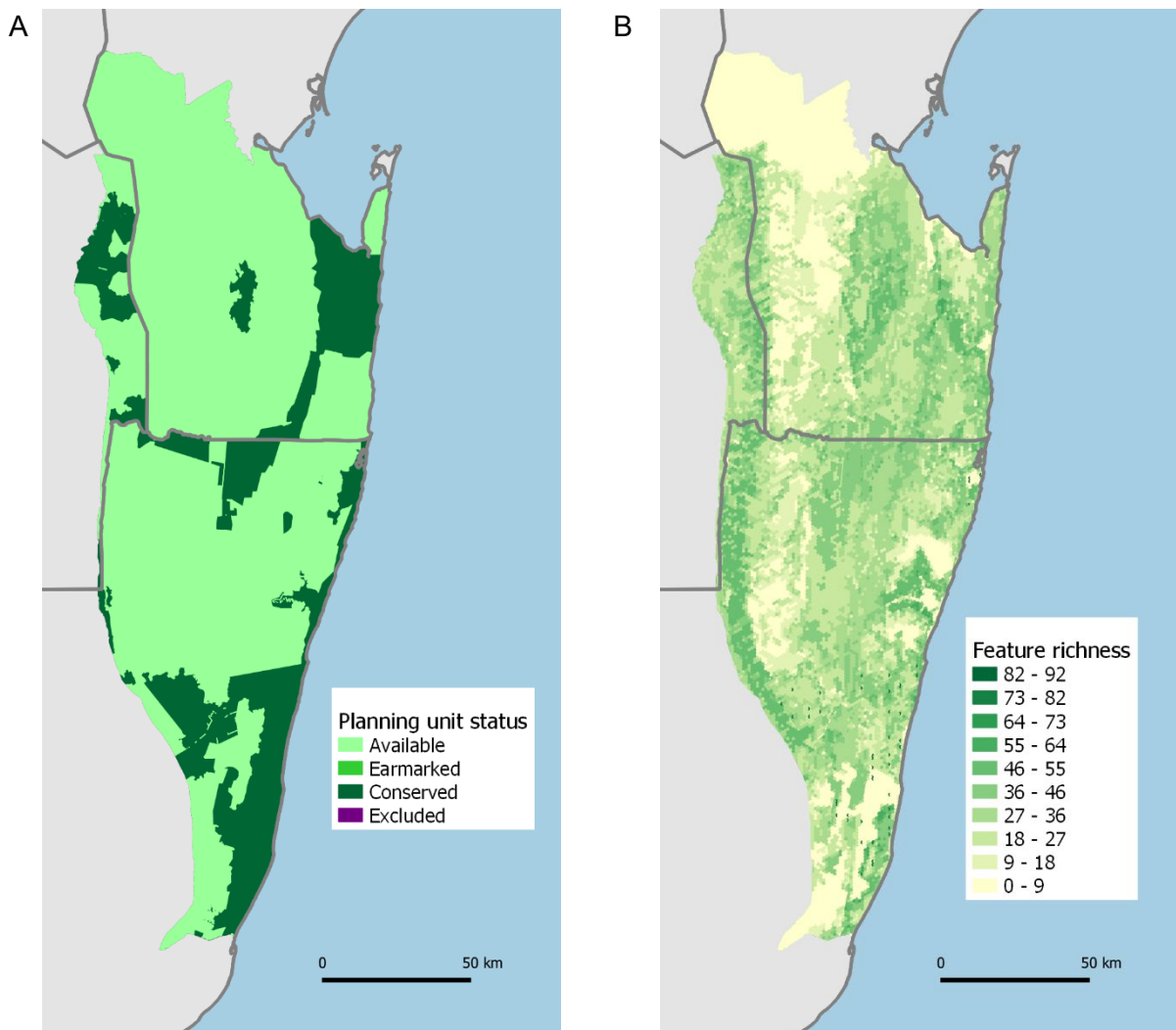
Additional. Bob Smith was awarded £6,545 from the University of Kent's GCRF Partnership Development Fund Application Form to support work in Year 2 and Year 3 of this project so that All Out Africa and KUWUKA JDA can continue to work to strengthen the Izele network.

### ***Output 3: producing the Maputaland conservation land-use zoning system***

We made good progress with Output 3, although delays with producing some of the datasets then delayed producing final products. In particular, we changed our project timeline to take advantage of Hermenegildo Matimele collecting new plant distribution data as part of his PhD research. Thus, two of the three indicators that were supposed to be completed by the end of Year 2 have not been finished (indicator 3.1 and 3.3).

3.1 We made important steps producing new data for the conservation land-use zoning system. We have updated the 2010 Maputaland landcover map by using 2019 data showing the spread of agricultural and urbanisation, and we produced a new conservation area map using data provided by the project partners (Figure 8A). We also identified 93 threatened and Maputaland-endemic species of amphibian, bird, mammal, plant and reptile species and produced Maputaland range maps based on IUCN Red List data for the animals and using Maxent to species distribution models for the plants. These plant models were based on field data collected by Hermenegildo Matimele and a set of collaborators in December 2019 and January 2020. We then combined this with data on the landcover associations of each species, which

was produced by our project partners and other experts, to produce the final species distribution maps (Figure 8B). We did not produce the ecotourism suitability layer and this will now be done as part of Nuwanthika Dharmaratne’s MSc project in the first half of Year 3.



**Figure 8: (A) PAs included in the updated Maputaland conservation planning system in CLUZ and species richness; (B) Map produced in the conservation planning system showing the number of important species found in each planning unit.**

3.2 We decided that it would be better to hold one workshop for all the regional experts rather than the two initially specified in the logframe, for logistical reasons and because we wanted all the experts to meet. This was attended by 19 people from UNESWA, UEM, ENTC, ANAC, IIAM, DICE, All Out Africa, KUWUKA JDA, Ezemvelo KwaZulu-Natal Wildlife and several independent ecologists. These experts finalised the list of species to include in the planning system, commented on the initial species range maps, identified which species would only be found in conservation areas with intensive management (information we will use in the land-use zoning analysis), identified which species are associated with each landcover type (information we used to produce the species distribution maps), and set preliminary targets for how much of each conservation feature should be conserved.

3.3 We produced a draft version of the gap analysis report that describes how the different conservation features were identified and mapped, explains the target setting process and then measures how well the current conservation area network meets the targets. This report was completed in late March and was then circulated to the expert groups to get their feedback on the targets. We will produce the final report in the next few months and make it publicly available on the project website.

3.4 The zoning and priority area maps will be produced towards the end of the project in Year 3, but we now plan to run a simpler priority area analysis once the gap analysis report has been finalised to inform ongoing work by the Peace Parks Foundation to identify priority areas around Maputo Special Reserve and Licuati Forest Reserve.

3.5 The two dissemination workshops will be held at the end of the project.

3.6 The manuscript for publication in the peer-reviewed literature will be produced towards the end of the project and Hermenegildo Matimele will lead on this as part of his PhD research.

#### ***Output 4: building capacity in conservation social networking and planning***

We made good progress towards achieving Output 4, although Ara Monadjem's study leave meant that we had to postpone the conservation planning training workshop in Eswatini and we plan another workshop for Mozambique in Year 3.

4.1 The Izele training materials were produced and put online in Year 1 but we updated them to reflect the additional functionality. All the pages can be accessed from <https://izele.org/help/>

4.2 We produced new training materials on gap analysis and conservation planning, with two tutorials and an updated CLUZ guide available from the [CLUZ website](#). We produced one [online video on using CLUZ and Marxan](#) that we posted to YouTube and will produce a second one in Year 3.

4.3 We trained 14 Maputaland conservationists in gap analysis and systematic conservation planning through a Maputo workshop led by UEM, although only 2 of them were women (compared to a target of 10 people, including 5 women). Based on user feedback, 100% of the participants felt they had gained skills and awareness, 78% felt they had a good understanding of the benefits of setting targets when designing protected area and 36% felt confident enough to run the software without expert help. However, all participants requested the course be repeated to strengthen their skills, so we plan to do this in Year 3.

4.4 Nkosikhona Hlatshwayo from Eswatini began the DICE MSc in Conservation Biology in September 2019 and is progressing well, with marks from the seven modules he has completed so far averaging a Merit level (60-69%).

4.5 Based on Google Analytics data, the online Izele materials downloaded by 280 people (compared to a target of 200 people by Year 3). The [online video tutorial](#) has been watched by 194 people according to YouTube (compared to a target of 200 by Year 3) but we plan to produce a new video in Year 3 that accounts for the added functionality.

4.6 Online conservation planning materials downloaded by 292 people according to the WordPress user stats (compared to a target of 150 people by Year 3) and the first [online video tutorial](#) watched by 148 people according to YouTube (compared to a target of 150 people by Year 3).

Additional. As part of the DICE MSc module Managing Protected Areas, Bob Smith taught a class to 31 people, including 22 women, and their nationalities included India, Antigua, Colombia, Eswatini, Guyana, Malaysia, Pakistan and Sri Lanka.

### **3.3 Progress towards the project Outcome**

Our project outcome is to reduce poverty and increase conservation capacity in Maputaland through building online social networks to strengthen and promote conservation areas and ecotourism, and stakeholder-led planning to identify biodiversity-rich community-based ecotourism zones. We have four indicators to measure progress towards this outcome, based on: (1) the number of conservation areas in Maputaland with Izele pages; (2) increases in visitor numbers to ecotourism enterprises leading to growth in wages and/or job opportunities;

(3) identifying priority areas for conservation and ecotourism, and; (4) training people to use Izele and the Maputaland planning system and software.

We think three of these indicators remain adequate and will definitely be achievable within the lifetime of the project. We have already met the target for the first indicator, as 16 Maputaland conservation areas have pages in Izele, together with 10 other conservation areas for the rest of Eswatini and Mozambique. We are highly confident that we will meet the target for the third indicator based on progress in Year 2, as we have most of the data needed for the conservation planning exercise and are in the process of producing the remaining required data. Thus, our target of producing priority maps to identify 100,000 ha of priority areas for conservation and community-based ecotourism in Year 3 should be straightforward. For the fourth indicator, we have already met the target of training 100 people to use Izele and 10 people to use the conservation planning software, and will further surpass the conservation planning target by running two more workshops in Year 3, ensuring that we meet the target of training 50 women to use Izele and 5 women to use the conservation planning system.

In contrast, the second indicator has become highly problematic in the light of the COVID-19 pandemic. This is because it is based on “Increased publicity through Izele for ecotourism enterprises leads to growth in wages and/or job opportunities for 150 households through a 5-10% increase in visitor numbers by yr3”. This indicator was already seeming problematic for two reasons. First, delays in launching the full set of ecotourism functionality in Izele meant that we were unlikely to meet the target by the end of the project, so we had planned to ask for a no-cost extension. Second, during the project we discovered that the information collected by each ecotourism venture in Maputaland on their staff and visitor numbers is often based on different time periods and metrics, which would make it more difficult to attribute change to the impacts of Izele. However, the impacts of COVID-19 make these issues fairly academic as the pandemic is already having a massive impact on ecotourism in the region and this is likely to continue until at least the end of 2020.

This means that we will submit a change request in May that accounts for the impacts of the COVID-19 pandemic, which will include a request to modify the second outcome indicator based on ongoing discussions with our project partners.

### **3.4 Monitoring of assumptions**

We have listed below all our Outcomes assumptions, together with the Output assumptions that are not repeated from the Outcomes assumptions.

- *Outcomes Assumption 1: Relevant governments remain stable and continue to view transfrontier biodiversity conservation as a priority and provide the necessary permissions to undertake project activities.* Comments: This still holds true.
- *Outcomes Assumption 2: Continued support from conservation areas, conservation groups and ecotourism enterprises.* Comments: This still holds true.
- *Outcomes Assumption 3: Project partners continue to have good Internet access on their computers and smart phones (as confirmed by the project partners).* Comments: This still holds true.
- *Outcomes Assumption 4: Smart phone coverage and access continues to be excellent along tourist routes and in towns, and good along minor roads and in villages (as confirmed by the project partners).* Comments: This still holds true, although some of our stakeholders have very old smartphones and this makes updating their Izele web pages more difficult than anticipated.
- *Outcomes Assumption 5: Self-guided tourism continues to be important and these tourists continue to have good Internet access at home when making plans, and while visiting Maputaland’s tourist routes and towns.* Comments: This held true during most of Year 2 but is likely to change a great deal in Year 3 because of the COVID-19 pandemic.

- *Output Assumption: Trained staff members continue to work for the relevant conservation organisations.* Comments: This still mostly holds true, although the person from ANAC assigned to support the Izele component of the project moved posts.
- *Output Assumption: Project partners continue to support the conservation planning process in Maputaland.* Comments: This still holds true.
- *Output Assumption: Project partners continue to support their staff receiving training.* Comments: This still holds true.

In response to the issues with Outcomes Assumption 4 in Year 2 we developed a revised approach that involves working 1-to-1 with conservation organisations that are more remote and/or have lower technical capacity to create Izele pages.

In response to the issues with Outcomes Assumption 5, we will have to revisit the ecotourism component of the project because of the massive disruption that COVID-19 is likely to cause. Therefore, we plan to submit a request to modify our proposed activities, outputs and outcomes.

In response to the issues with the first Output Assumption, ANAC have recently employed someone in the same role and we plan to work with them soon.

### **3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation**

Our project's planned impact is based on reducing Maputaland's poverty levels and increasing the sustainable management of biodiversity through effective transnational conservation, supported by global online conservation social networks, increased ecotourism and targeted expansion of community-based conservation areas.

Our project will have poverty alleviation impacts by increasing the number of people earning income through ecotourism, especially linked to community-managed conservation areas. This is because Maputaland has high levels of poverty and ecotourism is one of the few industries that can create jobs that do not have significant negative impacts on local ecosystem services, in particular water provision, medicinal plants and cultural services. We will achieve this by updating and expanding the Izele online social network to include ecotourism enterprises, especially community-based activities, thus helping increase visitor numbers by giving these groups a higher online presence and improving their marketing effectiveness. In Year 2 we encouraged new ecotourism ventures to create Izele pages and added new functionality to make it easier for them to promote their businesses and activities. Through this we now have 57 ecotourism businesses from Maputaland with Izele pages, two of which are community-based ventures.

Our project will have biodiversity conservation impact by helping to conserve important ecosystems and species in Maputaland, which is part of the Maputaland-Pondoland-Albany biodiversity hotspot and a Centre of Endemism. We will achieve this in two ways. First, we will help Maputaland's conservation areas create pages on the Izele online social network, so that they can better communicate and share information with their neighbours, stakeholders and visitors. This has been achieved in Year 2 with 16 Maputaland conservation areas creating Izele pages. Second, we will update the Maputaland conservation planning system and work with stakeholders to identify new conservation areas that can be used for ecotourism whilst also meeting targets for important biodiversity. The conservation area plans we produced as part of our previous Darwin project were used to inform protected area projects and conservation investment funds in Maputaland, and we are confident that our new project outputs will be similarly influential. In Year 2 we made very good progress towards producing the revised planning system, producing distribution maps of the different important ecosystems

and species, updating the conservation area boundary data, setting targets for each ecosystem and species and conducting a gap analysis to measure current levels of protection,

#### **4. Contribution to the Global Goals for Sustainable Development (SDGs)**

Our project is creating an online social network to increase community-based ecotourism that will help eradicate extreme poverty (SDG1) and create jobs and encourage the formalisation and growth of micro-, small- and medium-sized enterprises (SDG 8). It is also producing land-use zoning plans that will help protect and restore water-related ecosystem (SDG 6), conserve terrestrial and inland freshwater ecosystems and their services (SDG 15). Both the online social network and zoning plans will support participatory and representative decision-making at all levels and public access to information (SDG 16) and promote targeted capacity-building and the diffusion of environmentally sound technologies (SDG 17).

In Year 2 of the project we strengthened the Izele social network in Maputaland so that 72 organisations in Eswatini, 53 organisations in Mozambique and 7 transfrontier/international organisations have created a page. These new pages included 92 for ecotourism-based organisations (53 in Eswatini and 39 in Mozambique). We began to produce the land-use zoning plans by beginning to collect the available landcover, land-use and biodiversity data, with new distribution data on 93 threatened and Maputaland-endemic species of amphibian, bird, mammal, plant and reptile species.

#### **5. Project support to the Conventions, Treaties or Agreements**

Our project is designed to help the governments of Eswatini, Mozambique and South Africa meet their obligations under the Convention on Biological Diversity. The Izele conservation social network will make people more aware of the values of biodiversity and the steps they can take to conserve it (Aichi Target 1). The Maputaland conservation planning system will ensure biodiversity values have been integrated into local development and poverty reduction strategies and processes (Aichi Target 1), help identify the best places for establishing new conservation areas (Aichi Target 11), help conserve threatened species (Aichi Target 12), and safeguard important ecosystem services (Aichi Target 14).

In Year 2 of this project we strengthened the Izele network by encouraging more conservation area managers to add pages. There are now 20 conservation areas in Eswatini and 4 conservation areas in Mozambique with pages in Izele (including those outside Maputaland).

We have mapped the distribution of 93 threatened and Maputaland-endemic species of amphibian, bird, mammal, plant and reptile species and carried out a gap analysis to assess their levels of protection. In addition, we have updated the Maputaland landcover map that shows the distribution of 46 ecosystem types, which have also been included in the gap analysis. The results of this gap analysis are provided in the draft gap analysis report that is one of the project outputs described above. This information will be used in Year 3 to identify priority areas for conservation and we have already been asked by the Peace Parks Foundation to provide information to inform the development of new conservation areas around Maputo Special Reserve.

Project partners include the SBSTTA National Focal Point and the Programme of Work on Protected Areas National Focal Point for Eswatini. We have yet to hear from the Primary National Focal Points to the Convention on Biological Diversity in the three countries.

#### **6. Project support to poverty alleviation**

Our project aims to have direct impacts on poverty alleviation by increasing the number of customers for ecotourism enterprises in Maputaland, especially community-based ecotourism, and thus boost wages and increase employment. We are doing this by adding ecotourism functionality to the Izele online social network and so letting these businesses show their locations on the map, share their contact information and give details of their amenities and biodiversity. There will also be indirect benefits by identifying priority areas for meeting

conservation targets that are also suitable for ecotourism, thus helping people conserve areas that will maintain a wealth of ecosystem services that many people on Maputaland rely on. In Year 2 we trained 92 people to create ecotourism pages in Izele, leading to 92 ecotourism-based organisations (53 in Eswatini and 39 in Mozambique) creating pages. Of these, the following are community-based organisations or include community-based components: Estufa Comunitária, Ezulwini handcraft market, Lubombo Man and Biosphere Reserve, Mahlanya Fruit Market, Malolotja Soapstone Carvers, Mantenga Nature Reserve and Cultural Village, Master Artworks Art and Craft Center, Mhlumeni Bush Camp, Rainbow Angel gallery, Royal Swazi Craft Market, Shewula Mountain Camp, Swazi Candles, Swazi Village Home Stay, Thandabantu handcraft market, Vuvulane food market and Xigubo de Bela-Vista.

## **7. Consideration of gender equality issues**

We worked to ensure that participants of our training workshops included 50% women, but fell short of our target and only achieved 45% for the Izele workshops and 14% for the conservation planning workshop. The conservation planning workshop was only one of several though, and we plan to address this imbalance when we run a second, larger workshop in Mozambique and the first workshop in Eswatini. The gap analysis workshop was attended by 14 men and 5 women and this poor ratio was partly due to some of the invitees not being available.

Our project seeks to address gender equality more broadly by building the capacity of community-based ecotourism enterprises, by supporting the women who work in this sector and increasing opportunities to support their livelihoods.

## **8. Monitoring and evaluation**

We established monthly meetings between the project partners, normally on Skype but also in person during the Project Leader's visit to Eswatini and Mozambique in May and November 2019. This was a largely successful approach, although it was not usually possible to find a time when all project partners were available. During these meetings we discussed progress, set action points and talked about the different issues that arose during the previous month.

Much of the monitoring and evaluation of the project is relatively straightforward, as Izele provides a wealth of quantitative data on the number of pages and visitors, the Maputaland conservation planning system makes it easy to quantify the data collected to inform the conservation zoning exercise, and downloads and views of the online training materials are easily quantified. The most difficult part of the project has been collecting the quantitative data on ecotourism employment and income, as we only have data from ten ecotourism ventures. We are in the process of getting agreement from other organisations to provide their data but the COVID-19 pandemic has cast doubt on using this as a metric anyway, as ecotourism is likely to be dramatically impacted during the crisis. Thus, we plan to submit a change request to use a different metric, although this needs to be agreed by all the project partners first.

We collected data on how useful people found Izele, finding high levels of support (e.g. 100% of workshop participants in Mozambique who completed the questionnaire said that Izele was highly relevant for their work, and 72%/28% said it will be very useful/useful for their work). However, in Year 3 we need to follow up and measure whether they are still able to update their pages and still find their pages useful. Evaluation data from the conservation planning workshop showed that people were more confident and aware after taking the training but only 36% felt confident enough to run the software without expert help, so we plan to rerun the workshop in Year 3.

The M&E work is shared by the partners, with Izele CIC providing the data on Izele pages, comments and users, the partners running each workshop providing data on participants and effectiveness, and DICE providing information on the use of online training materials. The data are fed back to the Project Leader and shared at the monthly meetings.

## **9. Lessons learnt**

Year 2 of the project has gone well and we are generally satisfied with progress. The project partners have worked well together and links between the partners in Eswatini and Mozambique have strengthened in particular. We are also pleased with how Izele has grown in Maputaland and the enthusiasm there is for developing this social network and producing the updated conservation planning system and ecotourism zoning maps.

Communication between the partners has generally been better in Year 2, although we have still struggled at times to have all partner meetings every month because of technological problems. We have overcome this by having more meetings involving smaller groups and sharing news about progress. Problems caused through the Project Leader not speaking Portuguese have also largely been solved by the increased involvement of Hermenegildo Matimele, and he has played an invaluable role in helping coordinate the conservation planning component of the project and facilitating communication with all of the Mozambique partners. Things have also run more smoothly because all the partners have been able to build on our experiences from Year 1, and we have had more time to catch up after the delays caused by finalising contracts at the beginning of the project.

We have been successful at building the Izele network to include conservation areas and ecotourism businesses, and we are pleased with our strategy of combining workshops and one-to-one meetings to provide training on how to create Izele pages. We are also confident that the system is intuitive enough for many people to create pages without external help, instead following the in-page guidance and using the help options. However, there are still two weaknesses that we need to address in Year 3. The first is that the community-based ecotourism pages are not as attractive as they could be because the page managers do not have access to high-quality imagery and we plan to work directly with them to resolve this issue. The second is that the network is not as active as we had expected, with some ecotourism ventures in Mozambique without pages and people not posting comments. This is partly due to delays in finishing the relevant functionality, so we are now able to increase use by promoting the new country pages and ability to add photos to posts. But to tackle this further, in Year 3 we will contact South African-run businesses in Mozambique by email and Facebook, as their Mozambican staff were generally reluctant to set up pages without permission and slow to contact their bosses to ask permission. We will also run a small grant scheme open to anyone who has created a high quality Izele page, encouraging people to sign up and building the network.

The conservation planning and capacity building components of the project have also been generally successful, although with some delays because of people's availability. The main lesson we have learnt is an obvious one, and stems from the heartening levels of engagement we have had with the conservation planning component compared to our original Darwin project that took place between 2003 and 2006. This is partly because we are building on this long-term relationship and working with partners who are still using the planning products from our original project, so are much more aware of the benefits of the approach we are using. But it is mainly because this process is co-led by the Eswatini and Mozambique partners who are able to ensure its relevance and provide links with other ongoing projects. Thus, our work provides further evidence of the importance of building long-term relationships and local leadership.

## **10. Actions taken in response to previous reviews (if applicable)**

The review of our Year 1 annual review asked three questions, which are listed below together with our responses.

*1. How will data on staff employment and wages etc. (MoV for indicator 0.2) be collected? Do you already have baseline data?*

We contacted a number of ecotourism ventures to ask whether they would be willing to share the data they collect as part of their official government reporting and business monitoring. Ten organisations have been willing to share this information and we are in the process of finding



more. However, the COVID-19 pandemic makes the relevance of measuring how Izele has improved tourist numbers and income doubtful and so we plan to revisit this metric as part of the process of developing a change request.

*2. Is it envisaged that paid advertising will appear on Izele during the project lifetime? Have you established 'willingness to pay' by the various groups and businesses which currently appear on the site? How much money do you need to raise to make the site self-sustaining?*

We do not plan to include paid advertising on Izele during the lifetime of the project, as costs are relatively low when Izele covers the three countries. Advertising will become important when we expand the network to cover more countries.

*3. Please clarify the overlap between attendees at the various workshops and ensure that the numbers reported in different parts of the report are consistent.*

We hope we have now explained the numbers attending the workshops in more detail and hope that this is now clearer.

## **11. Other comments on progress not covered elsewhere**

Like many other Darwin Initiative projects, COVID-19 will have massive impacts on Year 3 of our project and so we are already developing ways to overcome the restrictions in travel and meeting, and developing ways to make Izele more relevant during a time when ecotourism levels will drop precipitously. We plan to submit a change request in May to account for these changes.

## **12. Sustainability and legacy**

The project has a high profile in the conservation sector in Eswatini, partly because it builds on an existing Darwin-funded project and partly because this sector is relatively small and well-connected. Raising the profile in Mozambique has been more challenging because the conservation sector is more dispersed and more dependent on a few key government players. Having said that, all of the major conservation organisations in Mozambique are now aware and supportive of the project. We have also worked to promote the project in the ecotourism sector, both by working directly with ecotourism entrepreneurs and meeting with representatives of tourism groups in both countries. We still need to work on promoting Izele in Year 3 though, as there are more ecotourism ventures that could be included in the network, although we are unsure whether people will see this as a priority during the COVID-19 outbreak. Evidence of increasing capacity comes from the number of people who have been able to create pages on Izele and the number of times people have downloaded the CLUZ plugin and tutorial exercises.

In terms of our open access plan, anyone in Eswatini, Mozambique and South Africa can create their own content on the Izele online social network. Similarly, the CLUZ spatial conservation prioritisation plugin for QGIS is open source, with the code available on GitHub, and the publication describing CLUZ is open access and available free of charge to all.

Our planned exit strategy is still valid, although the COVID-19 pandemic means that it will take longer to achieve our goal of increasing ecotourism in Maputaland. Our legacy is based on building capacity and producing products that are valued by stakeholders. Thus, we expect that conservation areas and ecotourism enterprises will maintain their Izele pages and that Maputaland's decision makers and conservation scientists will continue to use and update the conservation planning system to produce priority areas maps for biodiversity and ecotourism. In addition, this project will ensure that Izele continues to grow and becomes a global conservation online social network, in the medium-term earning revenue through advertising to ensure it remains a free resource for conservationists and the public.

### **13. Darwin identity**

The Darwin Initiative funding is recognised as a distinct project and is well recognised by our project partners and main collaborators. We have publicised the Darwin Initiative in the following ways, each time using the logo:

- 1) The Darwin Initiative logo is featured prominently as a supporter on the Izele website, both on the homepage and on every page created by a conservation area, organisation or project. This logo links to the Darwin Initiative page on Izele, which shares Darwin Initiative tweets and also links back to the main Darwin Initiative website. Google Analytics shows that 1,600 different users visited pages 14,127 times on the website during the first year of the project and so would have seen these logos.
- 2) The Darwin Initiative logo is featured prominently on dialog boxes in the CLUZ plugin for QGIS, which has been downloaded 3933 times.
- 3) The Darwin Initiative was described and thanked during the two workshops run in October 16<sup>th</sup> 2019 in Eswatini and May 27<sup>th</sup> 2019 in Mozambique, where participants learnt about our project and produced Izele pages for their conservation area and organisation.
- 4) The Darwin Initiative has been mentioned in tweets sent by Bob Smith (2116 followers) and DICE (2972 followers).
- 5) The Darwin Initiative has been mentioned as the funder supporting Izele in the newsletter that is sent to all Izele page managers and posted on Izele's Facebook account (3521 followers) and Twitter account (219 followers).
- 6) The Darwin Initiative logo was thanked as the funder on the keynote address given by Bob Smith on June 5<sup>th</sup> 2019 at the Biodiversity Planning Forum in Northern Drakensberg, South Africa.
- 7) The Darwin Initiative logo was listed as the funder on the poster produced by Bob Smith that was presented at the International Congress of Conservation Biology on 22<sup>nd</sup> July 2019 in Kuala Lumpur, Malaysia.
- 8) The YouTube video "Using CLUZ and Marxan. Tutorial 1: CLUZ and Marxan overview" has been watched 137 times and prominently displays the Darwin Initiative logo.

### **14. Safeguarding**

Our safeguarding policies are based on those of the different partners which are designed to ensure vulnerable people are protected at all times. The project activities are covered by the University of Kent's safeguarding procedures and through the ethics approval and risk assessment process that were successfully completed by the Darwin Initiative project and the research carried out as part of the project by Hermenegildo Matimele and Katie McNie. As part of this we ensured that no student worked alone when collecting data, none of the information we collected involved children or other vulnerable groups, that no sensitive data is collected and all other relevant data are stored securely.

## 15. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)**

<b>Project spend (indicative) since last annual report</b>	<b>2019/20 Grant (£)</b>	<b>2019/20 Total Darwin Costs (£)</b>	<b>Variance %</b>	<b>Comments (please explain significant variances)</b>
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
<b>TOTAL</b>				

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 – March 2020	Actions required/planned for next period
<p><b>Impact</b></p> <p>Maputaland's poverty levels are reduced and biodiversity sustainably managed through effective transnational conservation, supported by global online conservation social networks, increased ecotourism and targeted expansion of community-based conservation areas (Cas).</p>		<p>In Year 2 we strengthened the Izele social network in Eswatini and Mozambique, increasing the number of conservation area and ecotourism pages, and produced the data needed to identify where best to expand the community-based conservation areas.</p>	
<p><b>Outcome</b></p> <p>Reduced poverty and increased conservation capacity in Maputaland through building online social networks to strengthen and promote conservation areas and ecotourism, and stakeholder-led planning to identify biodiversity-rich community-based ecotourism zones.</p>	<p>0.1 &gt;80% of the 20 state, private and community conservation areas in the Mozambique and Swaziland sections of Maputaland create pages in the Izele online social network by yr1, using them to share news and information.</p> <p>0.2 Increased publicity through Izele for ecotourism enterprises leads to growth in wages and/or job opportunities for 150 households through a 5-10% increase in visitor numbers by yr3, compared to baselines.</p> <p>0.3 Stakeholder-led process uses updated planning system to identify &gt;100,000 ha of priority areas for conservation and community-based ecotourism by yr3, thus guiding ongoing regional conservation action, zoning and investment.</p> <p>0.4 100 local conservationists (including 50 women) trained to use Izele (yr1); 10 local conservationists (including 5 women) proficient in using Maputaland planning system and software (yr2).</p>	<p>0.1 <b>Target met:</b> 80% (16) of the 20 conservation areas in Maputaland with Izele pages. <b>Additional:</b> 10 protected areas outside of Maputaland (7 in Eswatini, 3 in Mozambique).</p> <p>0.2 57 Maputaland ecotourism organisations have created pages on Izele (19 in Eswatini, 36 in Mozambique, 4 transnational) with an additional 39 outside of Maputaland. We have collected data on 10 ecotourism ventures to monitor changes in wages and visitor numbers.</p> <p>0.3 Produce distribution maps of important ecosystems and species, set targets, updated conservation area maps and carried out gap analysis based on expert-set targets.</p> <p>0.4 <b>Target partly met.</b> We trained 170 people in Eswatini (88 from Eswatini and 82 from Mozambique, of which 98 were men and 72 are women) at four workshops to create Izele pages. We trained 14 people, including 2 women, through one systematic conservation planning workshop.</p>	<p>0.1 Continue to expand Maputaland network through 1-to-1 training. Work to add more content to the conservation area pages.</p> <p>0.2 Continue to expand Maputaland network for ecotourism ventures through 1-to-1 training and publicity, contacting foreign-owned businesses directly</p> <p>0.3 Finalise conservation targets; model and map agricultural and ecotourism suitability; hold workshop with conservation planning experts and stakeholders; produce land-use zoning plan identifying priorities areas for conservation and community-based ecotourism; disseminate and promote plan and planning system.</p> <p>0.4 We will run two more workshops on systematic conservation planning, one in Eswatini and one in Mozambique. We will produce one more YouTube video showing how to create conservation planning system</p>

<p><b>Output 1.</b></p> <p>Increased promotion of state, private and community conservation areas, and increased capacity to share news, information and expertise with practitioners, stakeholders and visitors, by expanding the Izele online social network to include the Mozambique and Swaziland sections of Maputaland (yr1, yr2)</p>	<p>1.1 Two workshops (one in Mozambique, one in Swaziland) and site visits with &gt;100 Maputaland conservation practitioners (including 50 women) to train them how to create and use their own Izele page. We will ensure members of the seven communities involved in ecotourism are invited and represented (yr1).</p> <p>1.2 At least 16 state, private and community CA produce pages on Izele, showing the CA boundary, important species and describing the site (yr1).</p> <p>1.3 Comments and shared information from at least 100 Izele users on the CA pages and forums (yr2).</p>	<p>1.1 <b>Target met.</b> As part of the workshops carried out under Output 2, we included training so that people could create their own Izele pages. Members of all seven communities were invited and five participated. This means that 170 people have been trained in using Izele, 88 from Eswatini and 82 from Mozambique, of which 98 are men and 72 are women (Section 3.2, Annex 4A, 4B).</p> <p>1.2 <b>Target met.</b> 16 of the 20 conservation areas in Maputaland with Izele pages (Section 3.2, Annex 4C).</p> <p>1.3 41 users posted comments on the conservation area pages by Year 2.</p>	
<p>Activity 1.1. Produce and update a database of conservation areas and groups within Maputaland, which will be used to contact each organisation to encourage them to create pages on Izele and to link to the pages produced by their partners and donors. The data will also be used for monitoring Izele page uptake.</p>	<p><b>Completed in Year 1</b></p>		
<p>Activity 1.2. Train the KUWUKA JDA and All Out staff so they can support conservation areas and groups to produce their own Izele pages.</p>	<p><b>Completed in Year 1</b>, although we provided additional guidance on using the new functionality.</p>	<p>We will continue to provide advice on any new functionality added to Izele in Year 3.</p>	
<p>Activity 1.3. Workshop for representatives from all conservation organisations in Maputaland to celebrate the launch of the Izele network in their region, demonstrate how the social network functions, encourage them to create pages and collect their feedback.</p>	<p><b>Completed in Year 1</b>, although we continued to encourage groups to create pages in Izele.</p>	<p>We will continue to encourage groups to create pages in Izele in Year 3.</p>	
<p>Activity 1.4. Publicise Izele, encourage the creation of new pages and support page development by contacting groups and social media.</p>	<p>We have publicised Izele through our contact networks and on social media.</p>	<p>We will continue with this action in Year 3.</p>	
<p>Activity 1.5. Create and support Izele forum pages on relevant topics so the different conservation areas and groups share information, advice and documents.</p>	<p>We created forum pages but with little take-up.</p>	<p>We will work to grow the network and then encourage people to use the forums in Year 3.</p>	
<p><b>Output 2.</b></p> <p>Increased visitor numbers and tourist revenue for conservation area- and community-based ecotourism in Maputaland, as well as building future revenue through increased awareness, by adding ecotourism enterprises to the</p>	<p>2.1 One workshop with 20 Maputaland ecotourism practitioners to develop new Izele functionality, using a participatory approach to guarantee the website is tailored to the needs of enterprise owners (yr1). We will ensure members of the seven community-</p>	<p>2.1 <b>Target met in Year 1</b></p> <p>2.2 <b>Target met.</b> We added new functionality so that people could see all the ecotourism opportunities available in each country and search for specific activities (Section 3.1 and 3.2).</p> <p>2.3 <b>Target met.</b> We trained 92 people how to use the ecotourism functionality in Izele at one workshop in Eswatini and one in Mozambique, including 41 women.</p>	

<p>Maputaland online social network in Izele (yr1, yr2, yr3).</p>	<p>based ecotourism enterprises (listed below) are invited and represented.</p> <p>2.2 Ecotourism enterprise page functionality added to Izele (yr1).</p> <p>2.3 Two training workshops (one in Mozambique, one in Swaziland) with 40 people (50% women) with Maputaland ecotourism practitioners to learn how to create and use Izele ecotourism functionality (yr1). We will ensure members of the seven community-based ecotourism enterprises (listed below) are invited and represented.</p> <p>2.4 At least 80 Maputaland ecotourism pages added by enterprises (yr2), including &gt;4 enterprises run by the Catuane, Goba and Tsakane communities in Mozambique and the Mambane, Manzinyama, Mhlumeni and Shewula communities in Swaziland (Fig 1).</p> <p>2.5 At least 80% user satisfaction with the new Izele ecotourism functionality (yr2).</p> <p>2.6 Comments from 100 Izele users on ecotourism pages (yr2).</p>	<p>Participants included representatives of the seven community-based ecotourism enterprises, including staff working in 18 community-based ecotourism enterprises (Section 3.2, Annex 4A, 4B).</p> <p>2.4 There are 57 Maputaland ecotourism enterprises with pages in Izele, including one from the Shewula community and one from the Mhlumeni community and three others for community-based projects in Maputaland (Lubombo Man and Biosphere Reserve, Estufa Comunitária and Xigubo de Bela-Vista). Another 39 ecotourism ventures from outside Maputaland have created pages, including 13 community-based ventures (Section 3.2, Annex 4C).</p> <p>2.5 We decided to assess this in Year 3 because of delays in rolling out the new ecotourism functionality</p> <p>2.6 32 people have posted comments on Izele ecotourism pages.</p>	
<p>Activity 2.1. Produce and update database of ecotourism enterprises and collect data on the type of ecotourism activities supported and the number of staff employed.</p>	<p><b>Completed in Year 1</b>, although we continue to look for new ecotourism ventures that could join Izele.</p>	<p>We will continue to collect these data in Year 3 and identify new enterprises that can provide us with the data.</p>	
<p>Activity 2.2. Workshop and site visits with ecotourism enterprises to collect feedback and advice on what type of functionality should be added to the Izele online social network.</p>	<p><b>Completed.</b> The 4 workshops carried out as part of Outputs 1 and 2 collected this feedback and advice, resulting in the added Izele functionality.</p>	<p>We will continue to solicit feedback from users on the ecotourism functionality.</p>	
<p>Activity 2.3. Produce additional code to create and then refine ecotourism functionality to the Izele online social network.</p>	<p><b>Completed.</b> We added the Amenities tab and improved the map search functionality</p>	<p>We may add new functionality to provide details of available activities during the response to COVID-19.</p>	

<p>Activity 2.4. Workshop to celebrate the launch of the Izele ecotourism functionality and encourage ecotourism enterprises to sign up.</p>	<p><b>Completed.</b> As part of the workshops described in Activity 2.2 we celebrated and launched the Izele ecotourism functionality.</p>	<p>We will continue to encourage ecotourism ventures to sign up to Izele.</p>
<p>Activity 2.5. Publicise Izele ecotourism functions and support page development through ad hoc site visits, email and telephone support.</p>	<p>Support was provided by Izele CIC, All Out Africa and KUWUKA JDA.</p>	<p>Izele CIC, All Out Africa and KUWUKA JDA will continue to provide support.</p>
<p>Activity 2.6. Work with communities in Mozambique and Swaziland to map their preferred areas for ecotourism activities, as part of creating their Izele ecotourism pages and to inform land-use planning.</p>	<p>We began to work with communities to create Izele pages that included their conservation area locations.</p>	<p>We will collect these data early in Year 3, mostly as part of a DICE MSc research project.</p>
<p>Activity 2.7. Collect monitoring data on ecotourism business staff numbers and wages, as well as data on customer profiles and how they heard about the business.</p>	<p>We collected these data and have information from 10 ecotourism ventures.</p>	<p>We will continue to collect this data, especially in the Mozambique section of Maputaland.</p>
<p><b>Output 3.</b> 3. Updated Maputaland conservation planning system and new regional zoning plans that identify priority areas for conservation and community-based ecotourism, and are designed to inform land-use planning, national and international conservation investment strategies and the ongoing expansion of Maputaland's state-, private- and community-managed conservation area network (yr1, yr2, yr3).</p>	<p>3.1 Updated conservation planning system with updated biodiversity, natural capital and conservation area GIS data, plus new ecotourism GIS data (yr2). 3.2. Two workshops to bring together regional experts to improve datasets, set targets, and oversee analysis results (yr2). 3.3 Gap analysis to identify important species and ecosystem types that are under-represented in Maputaland's state, privately-owned and community conservation areas (yr2). 3.4 Zoning and priority area maps produced using the CLUZ and Marxan with Zones software (yr3). 3.5 Two dissemination workshops to explain and publicise the priority area maps and zonation plan to stakeholders (yr3). 3.6 One publication in peer-reviewed literature describing the production of the zoning plan (yr3).</p>	<p>3.1 <b>Target partly met.</b> We produced distribution maps of 93 threatened and Maputaland-endemic species and 46 ecosystem types. The ecotourism data will be produced in Year 3 (Section 3.2, Annex 4D). 3.2 <b>Target met.</b> We brought all the experts together for one workshop in November 2019 (Section 3.2, Annex 4B). 3.3 <b>Target partly met.</b> We undertook the analysis using initial targets and produced a draft report (Section 3.2, Annex 4D). The final version will be produced after expert feedback. 3.4 This will be assessed in Year 3. 3.5 This will be assessed in Year 3. 3.6 This will be assessed in Year 3.</p>
<p>Activity 3.1. Update the GIS data in conservation planning system to reflect changes in landcover, species distributions and conservation area coverage.</p>	<p><b>Partly completed.</b> We updated the landcover, species distributions and</p>	<p>This process will be finished in Year 3.</p>

		conservation area coverage data, although this may be refined once we have feedback from the gap analysis report.	
Activity 3.2. Produce conservation area gap analysis report by revisiting the previous conservation targets in the Maputaland conservation planning system and then measuring the extent to which the network of conservation areas meets these targets for the different ecosystem types and species.		<b>Partly completed.</b> We produced the draft gap analysis report which has been circulated to experts for comment.	This process will be finished in Year 3.
Activity 3.3. Workshop to set land-use zoning targets based on different land-use planning scenarios for conservation, agriculture, afforestation, ecotourism and urbanisation.		<b>Completed.</b> This was held in November 2019	
Activity 3.4. Conservation land-use zoning prioritisation to identify priority areas for conservation and community-based ecotourism, producing different land-use zoning maps and writing up reports and then submitting for publication in a peer-reviewed open-access journal.		We were not scheduled to begin these activities in Year 2, although this will be based on the Maputaland conservation planning system that we produced in Year 2.	This will take place in Year 3.
Activity 3.5. Presentation of the gap analysis and land-use zoning results at two events, one in Mozambique and one in Swaziland, where project partners, decision makers, donors and high-level government representatives will be invited to learn about the results of the project and celebrate our achievements.		We were not scheduled to begin these activities in Year 2.	This will take place in Year 3.
<p><b>Output 4.</b></p> <p><u>3.</u> Building capacity so that conservation practitioners in Maputaland can use the Izele online social network and transfrontier conservation planning system, through in-person training and by developing online materials that can also be used by the global conservation community (yr1, yr2, yr 3).</p>	<p><u>4.1</u> <b>One</b> new set of training materials on creating conservation area and ecotourism pages in Izele (yr1).</p> <p><u>4.2</u> <b>One</b> new set of training materials on gap analysis and conservation planning, plus 2 online tutorial videos on using CLUZ and Marxan (yr2).</p> <p><u>4.3</u> <b>10</b> Maputaland conservationists (including 5 women) trained in gap analysis and systematic conservation planning, with at least 80% of people gaining skills and awareness (yr2).</p> <p><u>4.4</u> <b>One</b> Swazi national given in-depth training in conservation planning as part of undertaking the DICE MSc in Conservation Biology (yr2, yr3).</p>	<p>4.1 <b>Target met in Year 1</b> but updated to account for new functionality in Year 2 (Section 3.2, Annex 4E).</p> <p>4.2. <b>Target partly met.</b> Two sets of training material produced and one YouTube video produced (Section 3.2, Annex 4F).</p> <p>4.3. <b>Target partly met.</b> One workshop trained 14 people, including 2 women (Section 3.2, Annex 4B, 4G)</p> <p>4.4. <b>Target partly met.</b> Nkosikhona Hlatshwayo successfully completed the taught part of his MSc in Conservation Biology course and will next start his research project.</p> <p>4.5. <b>Target partly met.</b> The Izele materials downloaded by 280 people and the online video tutorial has been watched by 194 people (Section 3.2, Annex 4E).</p> <p>4.6. <b>Target partly met.</b> Online conservation planning materials downloaded by 292 people and the first online video tutorial watched by 148 people (Section 3.2, Annex 4F).</p>	



	<p>4.5 Online Izele materials downloaded by <b>200</b> people and online video tutorials watched by <b>200</b> people (yr3).</p> <p>4.6 Online conservation planning materials downloaded by <b>150</b> people and online video tutorials watched by <b>150</b> people (yr3).</p>		
<p>Activity 4.1. Train state, private and community conservation areas, groups and ecotourism enterprises to create and manage their own Izele pages by developing online tutorials, including YouTube videos, all of which will be translated into Portuguese.</p>	<p><b>Completed.</b></p>		
<p>Activity 4.2. Postgraduate training of a Swaziland national from the government, NGO or academic sector on DICE's MSc in Conservation Biology with their 6 month research project using the Maputaland conservation planning system.</p>	<p>Partly completed, as the student begin the course in September 2019.</p>	<p>This student will graduate in Year 3.</p>	
<p>Activity 4.3. Train conservation practitioners to use the Maputaland planning system and the CLUZ, Marxan and Marxan with Zones systematic conservation planning software using updated training materials. In addition, produce YouTube videos (with Portuguese subtitles) showing how to use CLUZ, Marxan and Marxan with Zones.</p>	<p>Partly completed, as we ran one conservation planning training workshops, produced two sets of training material and produced one video.</p>	<p>We will run two more training workshops in Year 3 and produce a second YouTube video.</p>	

## Annex 2: Project’s full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Impact:</b> (Max 30 words)</p> <p>Maputaland’s poverty levels are reduced and biodiversity sustainably managed through effective transnational conservation, supported by global online conservation social networks, increased ecotourism and targeted expansion of community-based conservation areas (Cas).</p>			
<p><b>Outcome:</b> (Max 30 words)</p> <p>Reduced poverty and increased conservation capacity in Maputaland through building online social networks to strengthen and promote conservation areas and ecotourism, and stakeholder-led planning to identify biodiversity-rich community-based ecotourism zones.</p>	<p><u>0.1</u> &gt;80% of the 20 state, private and community conservation areas in the Mozambique and Swaziland sections of Maputaland create pages in the Izele online social network by yr1, using them to share news and information.</p> <p><u>0.2</u> Increased publicity through Izele for ecotourism enterprises leads to growth in wages and/or job opportunities for <b>150</b> households through a <b>5-10%</b> increase in visitor numbers by yr3, compared to baselines.</p> <p><u>0.3</u> Stakeholder-led process uses updated planning system to identify <b>&gt;100,000 ha</b> of priority areas for conservation and community-based ecotourism by yr3, thus guiding ongoing regional conservation action, zoning and investment.</p> <p><u>0.4</u> <b>100</b> local conservationists (including 50 women) trained to use Izele (yr1); <b>10</b> local conservationists (including 5 women) proficient in using Maputaland planning system and software (yr2).</p>	<p><u>0.1</u> Izele monitoring data on number of CA and group pages, users, forums and posts (yr1).</p> <p><u>0.2</u> Izele data on ecotourism pages, users, forums and posts; collected data on staff employment and wages, visitor numbers and visitor awareness pre- and post-Izele launch inside and neighbouring Maputaland (yr1, yr2, yr3)</p> <p><u>0.3</u> Planning system available online with updated maps for 53 ecosystem types and 55 species; priority area coverage obtained from GIS maps; semi-structured interviews with relevant decision makers to measure use of planning system and outputs (yr3).</p> <p><u>0.4</u> Pre- and post-training questionnaires to measure skills uptake (yr1, yr2).</p>	<p>Relevant governments remain stable and continue to view transfrontier biodiversity conservation as a priority and provide the necessary permissions to undertake project activities.</p> <p>Continued support from conservation areas, conservation groups and ecotourism enterprises.</p> <p>Project partners continue to have good Internet access on their computers and smart phones (as confirmed by the project partners).</p> <p>Smart phone coverage and access continues to be excellent along tourist routes and in towns, and good along minor roads and in villages (as confirmed by the project partners).</p> <p>Self-guided tourism continues to be important and these tourists continue to have good Internet access at home when making plans, and while visiting Maputaland’s tourist routes and towns.</p>

<p><b>Outputs:</b></p> <p>10. Increased promotion of state, private and community conservation areas, and increased capacity to share news, information and expertise with practitioners, stakeholders and visitors, by expanding the Izele online social network to include the Mozambique and Swaziland sections of Maputaland (yr1, yr2)</p>	<p>10.g <b>Two</b> workshops (one in Mozambique, one in Swaziland) and site visits with &gt;100 Maputaland conservation practitioners (including 50 women) to train them how to create and use their own Izele page. We will ensure members of the seven communities involved in ecotourism are invited and represented (yr1).</p> <p><u>1.2</u> At least <b>16</b> state, private and community CA produce pages on Izele, showing the CA boundary, important species and describing the site (yr1).</p> <p><u>1.3</u> Comments and shared information from at least <b>100</b> Izele users on the CA pages and forums (yr2).</p>	<p><u>1.1</u> Attendance sheets, workshop and meeting reports (yr1).</p> <p><u>1.2</u> Izele monitoring data on number of CA pages (yr1, yr2).</p> <p><u>1.3</u> Izele monitoring data on number of comments and forum comments (yr2).</p>	<p>Project partners, local people and visitors continue to have good Internet access on their computers and smart phones (as confirmed by the project partners).</p> <p>Mobile phone access continues to be excellent along tourist routes and in towns, and good along minor roads and in villages (as confirmed by the project partners).</p>
<p><u>2.</u> Increased visitor numbers and tourist revenue for conservation area- and community-based ecotourism in Maputaland, as well as building future revenue through increased awareness, by adding ecotourism enterprises to the Maputaland online social network in Izele (yr1, yr2, yr3).</p>	<p><u>2.1</u> <b>One</b> workshop with 20 Maputaland ecotourism practitioners to develop new Izele functionality, using a participatory approach to guarantee the website is tailored to the needs of enterprise owners (yr1). We will ensure members of the seven community-based ecotourism enterprises (listed below) are invited and represented.</p> <p><u>2.2</u> Ecotourism enterprise page functionality added to Izele (yr1).</p> <p><u>2.3</u> <b>Two</b> training workshops (one in Mozambique, one in Swaziland) with 40 people (50% women) with Maputaland ecotourism practitioners to learn how to create and use Izele ecotourism functionality (yr1). We will ensure members of the seven community-based ecotourism enterprises (listed below) are invited and represented.</p> <p><u>2.4</u> At least <b>80</b> Maputaland ecotourism pages added by enterprises (yr2),</p>	<p><u>2.1</u> Attendance sheets and workshop reports (yr1).</p> <p><u>2.2.</u> Functionality added to Izele and documented on Izele website (yr1).</p> <p><u>2.3</u> Attendance sheets and workshop reports (yr1).</p> <p><u>2.4</u> Izele monitoring data on number of ecotourism pages (yr2).</p>	<p>Continued support from ecotourism enterprises and communities involved with ecotourism enterprises.</p> <p>Mobile phone access continues to be excellent along tourist routes and in towns, and good along minor roads and in villages (as confirmed by the project partners).</p> <p>Tourists continue to plan their holidays before travelling to the most remote parts of Maputaland, so have good Internet access either at home, or while visiting Maputaland's tourist routes and towns.</p>

	<p>including &gt;4 enterprises run by the Catuane, Goba and Tsakane communities in Mozambique and the Mambane, Manzinyama, Mhlumeni and Shewula communities in Swaziland (Fig 1).</p> <p><u>2.5</u> At least <b>80%</b> user satisfaction with the new Izele ecotourism functionality (yr2).</p> <p><u>2.6</u> Comments from <b>100</b> Izele users on ecotourism pages (yr2).</p>	<p><u>2.5</u> User questionnaires from people working for ecotourism enterprises in Maputaland (yr2).</p> <p><u>2.6</u> Izele monitoring data on number of ecotourism pages (yr2).</p>	
<p><u>3.</u> Updated Maputaland conservation planning system and new regional zoning plans that identify priority areas for conservation and community-based ecotourism, and are designed to inform land-use planning, national and international conservation investment strategies and the ongoing expansion of Maputaland's state-, private- and community-managed conservation area network (yr1, yr2, yr3).</p>	<p><u>3.1</u> Updated conservation planning system with updated biodiversity, natural capital and conservation area GIS data, plus new ecotourism GIS data (yr2).</p> <p>10.g. <b>Two</b> workshops to bring together regional experts to improve datasets, set targets, and oversee analysis results (yr2).</p> <p>10.g. Gap analysis to identify important species and ecosystem types that are under-represented in Maputaland's state, privately-owned and community Cas (yr2).</p> <p>10.g. Zoning and priority area maps produced using the CLUZ and Marxan with Zones software (yr3).</p> <p>10.g. <b>Two</b> dissemination workshops to explain and publicise the priority area maps and zonation plan to stakeholders (yr3).</p> <p><u>3.6</u> <b>One</b> publication in peer-reviewed literature describing the production of the zoning plan (yr3).</p>	<p><u>3.1</u> Planning system uploaded to project website, together with metadata (yr2).</p> <p>10.g. Attendance sheets and workshop reports (yr2).</p> <p>10.g. Gap analysis results and report uploaded to project website (yr2).</p> <p>10.g. Zoning maps and report uploaded to project website (yr3).</p> <p>10.g. Attendance sheets and workshop reports (yr3).</p> <p><u>3.6</u> Publication uploaded to project website (yr3).</p>	<p>Trained staff members continue to work for the relevant conservation organisations.</p> <p>Project partners continue to support the conservation planning process in Maputaland.</p>

<p><u>4.</u> Building capacity so that conservation practitioners in Maputaland can use the Izele online social network and transfrontier conservation planning system, through in-person training and by developing online materials that can also be used by the global conservation community (yr1, yr2, yr 3).</p>	<p><u>4.1</u> <b>One</b> new set of training materials on creating conservation area and ecotourism pages in Izele (yr1).</p> <p><u>4.2</u> <b>One</b> new set of training materials on gap analysis and conservation planning, plus 2 online tutorial videos on using CLUZ and Marxan (yr2).</p> <p><u>4.3</u> <b>10</b> Maputaland conservationists (including 5 women) trained in gap analysis and systematic conservation planning, with at least 80% of people gaining skills and awareness (yr2).</p> <p><u>4.4</u> <b>One</b> Swazi national given in-depth training in conservation planning as part of undertaking the DICE MSc in Conservation Biology (yr2, yr3).</p> <p><u>4.5</u> Online Izele materials downloaded by <b>200</b> people and online video tutorials watched by <b>200</b> people (yr3).</p> <p><u>4.6</u> Online conservation planning materials downloaded by <b>150</b> people and online video tutorials watched by <b>150</b> people (yr3).</p>	<p><u>4.1</u> Training materials uploaded to project website; training videos uploaded to YouTube (yr1).</p> <p><u>4.2</u> Training materials uploaded to project website; training videos uploaded to YouTube (yr2).</p> <p><u>4.3</u> Attendance sheets; pre- and post-training questionnaires to measure skills uptake (yr2).</p> <p><u>4.4</u> MSc graduation certificate (yr2, yr3).</p> <p><u>4.5</u> Download and view details from the respective websites (yr3).</p> <p><u>4.6</u> Download and view details from the respective websites (yr3).</p>	<p>Project partners continue to support their staff receiving training.</p>
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**Activities** (each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

**Output 1. Expand Izele to include Maputaland conservation areas and groups**

- 1.1. Produce and update a database of conservation areas and groups within Maputaland, which will be used to contact each organisation to encourage them to create pages on Izele and to link to the pages produced by their partners and donors. The data will also be used for monitoring Izele page uptake.
- 1.2. Train the KUWUKA JDA and All Out staff so they can support conservation areas and groups to produce their own Izele pages.
- 1.3. Workshop for representatives from all conservation organisations in Maputaland to celebrate the launch of the Izele network in their region, demonstrate how the social network functions, encourage them to create pages and collect their feedback.
- 1.4. Publicise Izele, encourage the creation of new pages and support page development by contacting groups and social media.
- 1.5. Create and support Izele forum pages on relevant topics so the different conservation areas and groups share information, advice and documents.

**Output 2. Add state, private and state ecotourism enterprises to Izele**

- 2.1. Produce and update database of ecotourism enterprises and collect data on the type of ecotourism activities supported and the number of staff employed.
- 2.2. Workshop and site visits with ecotourism enterprises to collect feedback and advice on what type of functionality should be added to the Izele online social network.
- 2.3. Produce additional code to create and then refine ecotourism functionality to the Izele online social network.
- 2.4. Workshop to celebrate the launch of the Izele ecotourism functionality and encourage ecotourism enterprises to sign up.
- 2.5. Publicise Izele ecotourism functions and support page development through *ad hoc* site visits, email and telephone support.
- 2.6. Work with communities in Mozambique and Swaziland to map their preferred areas for ecotourism activities, as part of creating their Izele ecotourism pages and to inform land-use planning.
- 2.7. Collect monitoring data on ecotourism business staff numbers and wages, as well as data on customer profiles and how they heard about the business.

**Output 3. Produce Maputaland conservation land-use zoning system**

- 3.1. Update the GIS data in conservation planning system to reflect changes in landcover, species distributions and conservation area coverage.
- 3.2. Produce conservation area gap analysis report by revisiting the previous conservation targets in the Maputaland conservation planning system and then measuring the extent to which the network of conservation areas meets these targets for the different ecosystem types and species.
- 3.3. Workshop to set land-use zoning targets based on different land-use planning scenarios for conservation, agriculture, afforestation, ecotourism and urbanisation.
- 3.4. Conservation land-use zoning prioritisation to identify priority areas for conservation and community-based ecotourism, producing different land-use zoning maps and writing up reports and then submitting for publication in a peer-reviewed open-access journal.
- 3.5. Presentation of the gap analysis and land-use zoning results at two events, one in Mozambique and one in Swaziland, where project partners, decision makers, donors and high-level government representatives will be invited to learn about the results of the project and celebrate our achievements.

**Output 4. Build capacity in conservation social networking and planning**

- 4.1. Train state, private and community conservation areas, groups and ecotourism enterprises to create and manage their own Izele pages by developing online tutorials, including YouTube videos, all of which will be translated into Portuguese.
- 4.2. Postgraduate training of a Swaziland national from the government, NGO or academic sector on DICE's MSc in Conservation Biology with their 6 month research project using the Maputaland conservation planning system.
- 4.3. Train conservation practitioners to use the Maputaland planning system and the CLUZ, Marxan and Marxan with Zones systematic conservation planning software using updated training materials. In addition, produce YouTube videos (with Portuguese subtitles) showing how to use CLUZ, Marxan and Marxan with Zones.

## Annex 3: Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
2	MSc in Conservation Biology		Eswatini	0	0.5		0.5	1
7	Izele online help	N/A	N/A	1			1	1
7	Izele YouTube videos	N/A	N/A	0	1		1	1
7	CLUZ tutorials	N/A	N/A	0	2		2	1
7	CLUZ YouTube videos	N/A	N/A	0	1		1	1
9	Conservation area gap analysis report	N/A	N/A	0	1		1	1
9	Conservation and ecotourism zoning plan report	N/A	N/A	0			0	1
11A	CLUZ description article	N/A	N/A	1			1	1
11B	CLUZ description article	N/A	N/A	1			1	1
11A	Maputaland spatial analysis	N/A	N/A	0			0	1
11B	Maputaland spatial analysis	N/A	N/A	0			0	1
12B	Izele online social network	N/A	N/A	1			1	1
12B	Maputaland conservation planning system	N/A	N/A	0			1	1
12B	CLUZ plugin for QGIS	N/A	N/A	1			1	1
14A	Training in using the	140 people (at least)	Eswatini & Mozambican	2	2		4	4

	Izele social network	70 women)						
14A	Conservation area gap analysis workshop		Eswatini & Mozambican	0	1		1	1
14A	Conservation and ecotourism zoning workshop		Eswatini & Mozambican	0			0	1
14A	Training in using CLUZ and Marxan	10 people (at least 5 women)	Eswatini & Mozambican	0	1		1	1
14A	Project results workshop		Eswatini & Mozambican	0			0	1
14A	Training in using CLUZ and Marxan	DICE MSc students			1		1	0
14B	Student Conference on Conservation Science (Poster presentation by PhD student)	Male	British & Mozambican	1			1	1
14B	Biodiversity Planning Forum in South Africa (Presentation by PI and PhD student)	Male	British & Mozambican	0	1			1
14B	ICCB workshop in Malaysia (Presentation by PI)	Male	British	0	1			1
23	Matching funding	N/A	N/A					
23	University of Kent GCRF funding	N/A	N/A					



**Table 2 Publications**

<b>Title</b>	<b>Type</b> (e.g. journal, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
The CLUZ plugin for QGIS: designing conservation area systems and other ecological networks	Journal article	R.J. Smith (2019). Research Ideas and Outcomes 5, e33510	Male	British	Research Ideas and Outcomes	Journal website <a href="https://riojournal.com/article/33510/">https://riojournal.com/article/33510/</a>
Testing the effectiveness of different site-based biodiversity and conservation prioritisation approaches in Mozambique	Poster	H. Matimele, D.L. Roberts, I. Darbyshire and R.J. Smith (2019)	Male	Mozambican	Unpublished.	Project website <a href="https://izele.org/projects/278/conservation-networking-ecotourism-and-land-use-planning-in-maputaland/about/">https://izele.org/projects/278/conservation-networking-ecotourism-and-land-use-planning-in-maputaland/about/</a>  Direct link: <a href="https://izele.org/api/1/docs/?org_id=278&amp;id=695a78af-4573-4a9e-bcd3-e02bce8892ee">https://izele.org/api/1/docs/?org_id=278&amp;id=695a78af-4573-4a9e-bcd3-e02bce8892ee</a>
Conservation social networking, ecotourism and land-use planning in Maputaland, southern Africa	Poster	Smith, Chiziane, Libanze, Mabilana, Maphalala, Masilela, Matimele, Matsinhe, Matusse, Monadjem, Mullier, Ngwenya, Nhancale, Nhancale, Ntumi and Roques (2019)	Male	British	Unpublished	Direct link: <a href="https://izele.org/api/1/docs/?org_id=278&amp;id=8f2fafa3-2d61-4116-b958-b07688be9d4f">https://izele.org/api/1/docs/?org_id=278&amp;id=8f2fafa3-2d61-4116-b958-b07688be9d4f</a>
The Perceived Impact of Community Based Ecotourism on Local Livelihoods in Maputaland	Dissertation *	McNie, K	Female	British	Unpublished	Direct link: <a href="https://izele.org/api/1/docs/?org_id=278&amp;id=fb2ea365-3f16-4d81-b472-e02a57ee64f7">https://izele.org/api/1/docs/?org_id=278&amp;id=fb2ea365-3f16-4d81-b472-e02a57ee64f7</a>
CLUZ for QGIS guide v2020.03.18	Manual*	Smith, RJ	Male	British	Unpublished	Direct link: <a href="https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_guide.pdf">https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_guide.pdf</a>
A tutorial for using CLUZ with QGIS. Exercise 1: An introduction to CLUZ	Manual*	Smith, RJ	Male	British	Unpublished	Direct link: <a href="https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_tutorial_ex1-1.pdf">https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_tutorial_ex1-1.pdf</a>
A tutorial for using CLUZ with QGIS. Exercise 2: Producing the CLUZ files	Manual*	Smith, RJ	Male	British	Unpublished	Direct link: <a href="https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_tutorial_ex2.pdf">https://anotherbobsmith.files.wordpress.com/2020/03/cluz_qgisv3_tutorial_ex2.pdf</a>

## Annex 4 Onwards – supplementary material (optional but encouraged) Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	✓
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<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
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