BUILDING OUR FUTURE

Youth entrepreneurs in biosphere reserves in Latin America and the Caribbean
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I. INTRODUCTION

In September 2017, UNESCO’s Man and the Biosphere (MAB) Programme organized the first MAB Youth Forum in Italy. The forum was very well received and featured the participation of almost 300 youth delegates from 85 countries. The delegates stated in the MAB Youth Forum Declaration that they were particularly concerned about fostering attractive and long-term employment opportunities at UNESCO Biosphere Reserves. To encourage the involvement of young people, the delegates recommended building closer working relationships at the national and regional level.

As biosphere reserves provide ecosystem services that can be used for socio-economic activities, the project Improving the socio-economic development of young people in biosphere reserves in the LAC region aimed to improve the socio-economic development of young people living in biosphere reserves in the Latin America and Caribbean (LAC) region.

UNESCO recognizes that young people are the future of biosphere reserves and through this project, and in line with the outcomes of the MAB Youth Forum 2017, it has sought to give them an opportunity to participate on the frontline of the MAB Programme, to help ensure the sustainable development of their communities in line with the Lima Action Plan. More specifically, this project focused on the socio-economic development of young people and ways to increase the involvement of young people in the MAB Programme at the regional and local level.

The project was launched during the 1st IberoMAB Youth Forum, which took place in December 2018 in the Bosques de Paz Transboundary Biosphere Reserve in Ecuador and Peru. It is the first initiative to actively engage youth in the MAB Programme and its biosphere reserves. This project was foreseen for youth and led by youth.

Young people and youth organizations from biosphere reserves in the LAC region were invited to propose five projects linked to the core topics of UNESCO’s Natural Science Sector, such as biodiversity conservation, green economies and ecosystem service management, among others.
II. INITIATIVES FUNDED BY THIS PROJECT
A. ‘Bee the Buzz of the Reserve – A livelihood project to promote pollinators for crop production and various products of honeybees, St Mary’s Biosphere Reserve’ (Saint Kitts and Nevis).

Project leader: Otis Jeffers

The Bee the Buzz of the Reserve project is an innovative initiative designed to demonstrate and promote the art and science of beekeeping in St. Mary’s Biosphere Reserve in Saint Kitts and Nevis. The project proposal arose from the realization that bee populations in the Caribbean Island were declining in size, posing myriad threats to ecosystem services which would affect the well-being and socio-economic conditions of local communities. Even more significantly, a decline in bee populations would disrupt crop pollination and affect food security and sovereignty, as well as contributing to biodiversity loss. This project represented an initial attempt to address some of these issues by developing the art of beekeeping as an aid to crop production, an approach that would simultaneously create employment opportunities for youth in urban and rural areas.

Specifically, this project was dedicated to:

- raise awareness about the importance of pollination and pollinators;
- develop educational opportunities for youth to learn about the importance of beekeeping and acquire the technical knowledge to carry out apiculture;
• promote biodiversity conservation;
• create employment opportunities for youth around products developed from apiculture;
• provide healthier, natural alternatives to artificial sweeteners derived from apiculture; and
• increase crop production while benefiting local farmers and contributing to food security.

Otis Jeffers, the project coordinator, worked to install an apiary site and organized educational workshops on beekeeping as well as site visits to raise awareness about the importance of preserving bee populations.

Otis explained that the greatest challenge posed by the project was the lack of technical expertise and equipment for beekeeping in Saint Kitts and Nevis, and also emphasized the difficulties involved in finding and capturing a wild swarm. Otis himself was a novice in beekeeping before beginning the project, but with great determination he acquired the knowledge and skills to develop this activity and carry out this project by himself.

Despite the challenges, the project proved extremely successful and resulted in the creation of a full apiary site that received visits from over 200 people and sensitized many more. This success also led to radio interviews in which Otis discussed the project, and the mounting of a billboard about the apiary in the biosphere reserve. The Ministry of Tourism is now exploring the potential for expanding api-tourism/agro-tourism.

Following the success of the project, farmers in the St. Mary’s Biosphere Reserve are being encouraged to raise bees on their farms to ensure stronger, more resilient ecosystems, and to create multiple avenues for potential local honey production that will help strengthen the biosphere reserve brand.
B. ‘Strengthening the Biosphere Reserve Brand through Youth Engagement in Turtle Conservation in the Xiriualtique Jiquilisco Biosphere Reserve’ (El Salvador).

Project leader: Diego Campos Coreas

This project aimed to promote and strengthen the biosphere reserve brand by enhancing sea turtle conservation. The initiative was built on three pillars:

1. Implementing environmental education for children and youth focused on the biosphere reserve concept and the conservation of sea turtles.
2. Undertaking the conservation of sea turtles.
3. Strengthening the biosphere reserve brand by sharing information about sea turtle conservation.

In 2019, a series of 12 workshops were held in local schools and other venues with the participation of over 300 children and youth. The workshops were organized with the support of 20 volunteers and used interactive materials and dynamic approaches to keep participants engaged and interested in the material being presented and the knowledge being transmitted.

The materials used during workshop seminars included educational brochures, puzzles and photographs; however, higher attendance than expected for some of the seminars represented a challenge given the limited availability of certain materials.

The seminars were also broadcasted via radio, which helped to disseminate...
the information more widely and ensure greater outreach.

Diego, the project leader, explained that ‘this project played a significant role in raising awareness of the need to protect sea turtle eggs and prevent their consumption. On a personal level, it taught us how to overcome challenges and deal with contingencies’.

As the project expanded in terms of number of workshops and beneficiaries, Diego received support from the local Municipality of Jiquilisco and Usulután and Gerardo Barrios University, with a view to ensuring the continuation of this project and creating a municipal environmental school. As the project advanced further, adults also began to get involved and take part in the seminars, highlighting growing interest in environmental education at the community level and a desire to participate in conservation activities.
C. ‘Creation of a radio programme to promote effective communication of ecological initiatives and environmental activities oriented towards youth in the Huayabamba River Basin, Gran Pajatén Biosphere Reserve’ (Peru).

Project leader: Fernando Tanata del Aguila

This project was dedicated to the creation of radio programming to disseminate environmental education and promote environmental initiatives in the Gran Pajatén Biosphere Reserve in Peru. In 2017, the Association of Protection of Communal Forests Dos de Mayo Alto Huayabamba (APROBOC) activated a local radio transmitter and launched Radio Alto Huayabamba: the Voice of the Gran Pajatén Biosphere Reserve. This radio station covers over ten communities and keeps them informed about events taking place in Peruvian biosphere reserves, environmental problems and other issues of local, regional, national and international interest. However, lack of dedicated management and ageing equipment has diminished the station’s ability to deliver quality programming. This project aimed to ensure the continuation of Radio Alto Huayabamba through the training of a new, younger generation of APROBOC members to generate the skills necessary to continue operating the station.

This project consisted of two activities:

1. Create programming and communication material for environmental education and awareness raising.
2. Boost the FM transmission signal to improve the operationalization and reach of the radio transmitter.

Surveys and interviews were conducted to determine topics of interest for the community. Transmissions and radio show content were then generated in accordance with the results, thereby enhancing the perception of the Alto Huayabamba radio station.

Thanks to this initiative, the population has a greater knowledge of activities and issues taking place in the biosphere reserve.

In addition, a new stereo FM transmitter was acquired and installed, extending the range of the signal to 20 communities and enhancing clarity and quality.

A total of 48 young people participated in the project: this group constituted the communications team of the biosphere reserve. All participants received training and worked together to create the audio content and record the radio programmes. Three of the
trainees demonstrated particular aptitude and were given specific training in recording animation and voice-over for radio programmes.

Beyond training youth in environmental topics and communication skills, the project helped to create a sense of community ownership among young people, making them feel part of the biosphere reserve with an ability to play an active role in its mission.

Fernando Tanata del Aguila, the project leader, highlighted the wealth of undiscovered talent among the youth of the Gran Pajatén Biosphere Reserve. Indeed, the project identified a number of young, talented individuals and offered them support through skills training. This process has given them a public voice and enabled them to participate in development of the community and decision-making processes.

One of the greatest obstacles to the project cited by Fernando was out-migration from the biosphere reserve due to lack of employment opportunities. This trend was particularly visible among young people and had an impact on the number of participants, especially those able to make a long-term commitment. The project worked to counter this issue by offering professional opportunities for local youth and establishing a basis for continued dynamic communication in the community rooted in stronger communal ownership. The radio station continues to operate in collaboration with APROBOC.
D. ‘Strengthening capacities for young people to provide ecotourism services in the Ciénaga Grande de Santa Marta Biosphere Reserve’ (Colombia).

Project leader: Aristides Segundo López Peña

This project aimed to develop ecotourism services in the Ciénaga Grande de Santa Marta Biosphere Reserve, while simultaneously improving the living conditions of young people living in the area, by strengthening their knowledge and building their capacity to carry out and promote community-based ecotourism experiences.

This initiative was born from the realization that small-scale artisanal fisheries are among the largest economic sectors in this region, but that due to over-fishing and environmental degradation, resources are declining and threatening the livelihoods of youth and their families.

Simultaneously, there has been an increase in the number of tourists visiting this region, although tourism services are often not offered by the local communities. Moreover, promotion of biosphere reserve as tourism destinations is minimal at the national and international levels. As a result, young people in the biosphere reserve receive little benefit from this activity.

This project promoted community-based ecotourism as an alternative socio-economic activity among youth and focused on:

- conducting training workshops on ecotourism-related topics;
- promoting the ecotourism experience in digital media; and
- acquiring elements necessary for the provision of ecotourism services.
To this end, four thematic workshops were held:

1. Environmental context of the Ciénaga Grande de Santa Marta Biosphere Reserve.
2. Environmental regulations and ecotourism.
4. Birdwatching tourism.

Educational tools describing the main topics covered in each workshop were also produced. After the workshops, individual interviews were conducted to learn more about the participants’ experiences. Overall, the project was very well received by the beneficiaries and has served to develop this economic activity among young people in the Ciénaga Grande de Santa Marta Biosphere Reserve.

This project ultimately aimed to create a pathway linking together the different ecotourism activities of the region, so that they complement rather than compete with each other. The project leader, Aristides Segundo López Peña, highlighted the potential to create a committee for coordinating ecotourism activities in the ecoregion and the need for a marketing strategy.

Aristides described this project as a collaborative effort and has emphasized the importance of consistency and building alliances among key stakeholders both locally and internationally. One of the key characteristics of this project was the interactive and dynamic environment created during the workshops, which stimulated interest in the development of ecotourism as a socio-economic activity for youth in the biosphere reserve.

A total of 22 youth benefited from the project which was open to young residents of Buenavista, while many other people were involved in organization of the workshops. Aristides is grateful for the opportunity to work alongside UNESCO with the support of Flanders and the Ministry of the Environment and Sustainable Development of Colombia. He cited the logistical challenges of implementing a project by himself, but described this as an ‘enriching experience that promoted the development of a sustainable socio-economic activity for a vulnerable group’.
E. ‘Integral management of plastic waste generated on the banks of the Napo River and the Limoncocha community through the empowerment of young people in the Limoncocha area’, Yasuní Biosphere Reserve (Ecuador).

Project leader: Jesenia Castillo

This project focused on finding a specific solution for plastic waste reduction that would also create socio-economic development opportunities for youth living in the vicinity of the Limoncocha National Biological Reserve in the Yasuní Biosphere Reserve. The solution offered an alternative to plastic waste management, and generated socio-economic activity while stimulating creativity through the creation of everyday use products from recycled materials.

The concept for the project was a response to the increasing accumulation of plastic waste on the banks of the Napo River in the Limoncocha area of the Yasuní Biosphere Reserve. Plastic bottles in particular represent a threat to the environment and the long-term sustainability of the area. Project leader Jesenia Castillo identified a way to minimize the environmental impact of plastic waste and to improve the image of the location, which is frequented by tourists due to its proximity to a national protected area and the core zone of a biosphere reserve. The solution involved good management and recycling of plastic bottles.

The project also generated experience and job opportunities for youth in a region where these are lacking. Furthermore, revenue from the sale of end-products from the upcycled bottles can be used to support and improve academic conditions for local children and youth.

The overall goal of this project was to reduce plastic waste and promote economic activity through the creation of an integral plastic management plan. This would include training of youth in the reduction, reutilization, recycling and transformation of plastic waste. Involvement in the project strengthened the leadership and entrepreneurial capacities of the young participants through long-term insertion into the local economy. The project itself offered alternative products that reuse plastic materials and provided sustainable development pathways for the Limoncocha community.

The project consisted of two stages:

1. Implementation
The first phase consisted of the establishment of the ‘Mushuk Sacha’ (New Forest) Plastic Recycling
Association (ASORECMUSA) and the selection of 24 young Kichwas from the town of Limoncocha to work on the project. The association was then registered with the National Institute of Popular and Solidarity Economy (IPES), and a series of training workshops were organized to:

- raise awareness about the impact of plastic pollution;
- explain the use and production of plastic recycling machinery to create new products from recycled materials; and
- develop entrepreneurial capacities among the participants to allow the project to become self-sustaining, with the products inserted into the supply chain.

2. Project implementation

The second phase of this project was dedicated to the practical development of a plastic management plan. At this stage, six collection bins were designed from scratch and installed in strategic locations in the Limoncocha area of the Yasuní Biosphere Reserve to centralize the waste. Simultaneously, a collection centre was constructed and put into operation in collaboration with the Limoncocha Parish Council, the Sek International University and the Oriente Higher Institute of the Limoncocha community. The partners provided ASORECMUSA with the materials and space needed to build the collection centre and the machinery.

With the support of students from the Oriente Higher Institute, an extruding machine was constructed at the centre and used to recycle the plastic (previously shredded) for conversion into new materials such as plastic wood. This prototype is now operational and is currently being upgraded to allow a series of products to be constructed with the recycled material.

Jesenia recognized the challenges of managing the project alone and explained that it has been a learning process for all involved. She also emphasized the sincere dedication of the project team despite the challenging conditions. Her hope is that continuation of the project will lead to the creation and maintenance of a small-scale business that can provide economic opportunities for the youth of the community, and support the long-term environmental sustainability of the Napo River. Jesenia also highlighted the importance of developing fundraising skills and creating alliances with key partners, emphasizing the need for further support to transform this initiative into a business opportunity.
The first MAB project designed and implemented by youth from biosphere reserves has been a learning process.

Of the 600 million people living in Latin America and the Caribbean, 25% are aged between 15 and 29 years old (ECLAC, 2015). This population includes future decision makers, and should therefore be an important focus.

The project has highlighted the need to generate sustainable socio-economic opportunities that contribute to protecting biodiversity while reducing unemployment and alleviating poverty.

Young people in Latin America and the Caribbean between the ages of 15-24 account for 29% of international migrants, many coming from poor rural areas (UNICEF, 2013). Initiatives such as this project are crucial to avoiding economic migration and generating capacity-building opportunities.

The challenge for the coming years for the UNESCO MAB Programme and its World Network of Biosphere Reserves is to create spaces for new generations and to strengthen their participation in governance and management of their biosphere reserves. This will only be possible by supporting capacity building through international collaboration and exchange of experiences, in order to prepare new generations for future challenges.