



E2F ANNUAL REPORT OF ACTIVITIES, 2020  
**ENVIRONMENT AND FOOD FOUNDATION  
(E2F) ANNUAL REPORT OF ACTIVITIES, 2020**





## E2F ANNUAL REPORT OF ACTIVITIES, 2020

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Lake Ossa Wildlife Reserve, Cameroon



Douala-Edea national park, Cameroon



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### **A word from the Founder & Director**

Environment and Food Foundation (E2F) is nonprofit and nongovernmental organization which was created in 2017 by a group of fisheries and aquatic sciences engineers, under the leadership of ACHARE Elvis AYAMBA as the Founder and was officially registered in 2019. E2F has as mission to promote sustainable use and management of marine and aquatic ecosystems of mangroves, wetlands laks, rivers, streams, and oceans through: Collection and valorization of marine plastics waste, conservation of threatened marine/aquatic ecosystems and species, Conducting research and studies, the development of alternative sources of income that will eliminate primary reliance on the environment, raising awareness and environmental education in local communities, Strengthening the capacity of all stakeholders involved including the local communities, government.

E2F envision a world where everyone has the right mindset to live in harmony with our blue planet.

In the year 2020, we focused our activities in littoral region of Cameroon, precisely in the city of Douala, Lake Ossa wildlife reserve and Douala-Edea national park in Cameroon.

Our main activities were environmental education, awareness raising, cleanup events, construction of materials from plastic waste (reusing plastic waste) and trees replanting activities.

In the year 2021, we seek to scale up our activities through:

Setting up a full scale plastics waste recycling plant which include moderne collection, transportation, sorting, storage, recycling (both mechanical and chemical) systems for plastics waste, engage in manual and mechanical removal of invasive salvinia plant in lake Ossa, promote agroforestry, running ecotoxicology study of water parameters, promote ecotourism.

I wish to seize this opportunity to express our heartfelt gratitude to our partners and supporters both individuals and organizations for their technical, financial, material and moral support.

We also wish to thank the local communities and administrative authorities for accompanying us to meet our mission.



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### Summary

Environment and Food Foundation (E2F), is a nonprofit and nongovernmental organization (NGO) that implements marine and aquatic ecosystems conservation projects on plastics collection and valorization, mangroves conservation, wetlands management, and other aquatic ecosystems along the Cameroon coast with the support of many stakeholders and organizations. E2F mission is to promote the sustainable use and management of marine and aquatic ecosystems. E2F aim is to conserve the rich biodiversity of our marine and aquatic ecosystems by contributing to minimize marine plastics pollution, conservation of threatened marine/aquatic species and habitats, conducting research and studies, the development of alternative sources of income that will eliminate primary reliance on the aquatic resources, raising awareness and environmental education in local communities.

In 2020, E2F launched three main programs:

The first program entitled; **Collection and valorization of marine plastics waste in Douala, Cameroon.** The implementation of this program started in the city of Douala, Cameroon. The main activities executed in this program were: organizing cleanup events and collecting plastics, reusing of the collected plastic waste bottles to construct eco-friendly products namely eco-benches, bulb coverings, eco-chairs and paving tiles, increase awareness and environmental education in communities and schools on sustainable management of plastics waste.

The second program entitled; **Participatory management and conservation of mangrove forest ecosystems in Douala-Edea national park, Cameroon.** This program's activities implemented were; Construction of local plant nurseries, environmental education and awareness raising on sustainable management and use of mangrove forest ecosystems in communities, replanting of mangroves plants.

The third program entitled; **Biodiversity conservation through community participation in lake Ossa wildlife reserve, Cameroon.** The activities implemented in this program were: Manual removal of the invasive *Salvinia molesta* plant in the lake Ossa, increase awareness and environmental education in communities, setting up of plant nurseries, planting of agroforestry plants.



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### Our core team

SN	Name	Function
01	ACHARE ELVIS AYAMBA	FOUNDER & DIRECTOR
02	EPOLLE RACHELLE	SECRETARY GENERAL
03	STEPHEN MBI	SENIOR MANAGER OF PROGRAMS
04	FELICIEN NYENTY	CONSERVATION CO-ORDINATOR
05	TAKANG BERTRAND	CHIEF FINANCIAL OFFICER
06	Dr OBEN MBENG	WASTE EXPERT/CONSULTANT
07	Dr NYADJEU PAULIN	TECHNICAL ADVISER
08	BELLA NDJOMO NADEGE	Field Assistant
09	DONGMO NGUEMEZI DIVINE	Field Assistant
10	SAMA CYRIL	Field Assistant
12	CHI MARY	Field Assistant
13	EPIE EKOKO MAYER	IT Expert
14	MUTCHI AGBOR BORIS	Field Assistant



**Founder & Director**



**Secretary General**



**Conservation coordinator**



**Senior Manager of Programs**



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### OUR MAIN ACHIEVEMENTS IN 2020

- ❖ We planted over 1000 mangroves plants of *Rhizophora* spp and *Avecinia* spp species .
- ❖ We planted over 500 native plants through the promotion of agroforestry.
- ❖ We collected over 10.000kgs of plastic waste from rivers, streams and landfills.
- ❖ Reusing of over 1000kgs of plastic waste bottles to construct eco-friendly products like eco-benches, eco-tables, eco-tables, eco-chairs, and bulb coverings.
- ❖ Recycling of plastic waste into paving tiles (eco-bricks).
- ❖ Educated over 2000 students and 500 communities members on sustainable natural resources use and management.



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### E2F ACTIVITIES IN 2020

#### Activities of January 2020

##### ❖ E2F Team members capacity building and empowerment

Strengthening the capacity of E2F team members is the sole responsibility of the organization. E2F aim is to raise young dynamic environmental ambassadors who will champion the course of environmental threats.

It is in this line that E2F organize weekly training workshops with the entire team and volunteers in order to empower them on sustainable conservation and management of marine and aquatic ecosystems, notably mangroves and wetlands and the marine plastics pollution reduction. E2F empower her team members to become plastic waste ambassadors and environmental ambassadors.



E2F Team capacity building workshop



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### ❖ International visitors at E2F

In January 2020, two Norwegians, visited E2F in Cameroon. The visitors were interested in E2F programs and decided to come to Cameroon to learn more about the programs.

The two programs of E2F were:

- ❖ The collection and recycling of plastic waste in Douala, Cameroon,
- ❖ The conservation and restoration of mangroves forest ecosystems in Cameroon,



Workshop with international visitors



Family photo after workshop



Training workshop



Training workshop





## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### February 2020 activities

#### **Raising awareness and Environmental education in the mangrove forest ecosystem of the Douala-Edea national park, Cameroon.**

The main threats to the mangroves forest ecosystem in this area are:

- 1) Unsustainable exploitation of the mangroves forest for fuel wood use in fish smoking and for cooking in households.
- 2) Illegal poaching of bush meat especially primates and other terrestrial and aquatic species

We interviewed 10 indigenous people living in the area. They gave us the history of the area, how the mangroves forest were some 10 years ago.

The mangroves were very healthy in the beginning but today, the mangroves forest is highly degraded. The surface area covered by mangrove has drastically reduced due to illegal or unsustainable exploitation of mangroves for fuel wood. This has led to the extinction of some terrestrial species like primates and some aquatic species.



Focused group discussion with fish smokers and farmers in the Park



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### March 2020 activities

#### Clean-up event at Pont Combi-Douala

The cleanup site was at pont combi-Douala. This river in Douala is overflowing with waste, and are as such affecting both human health and the ecosystems downstream. Food waste, sanitary products, textiles, plastics and other types of waste products aggregate in the river systems. When the rivers flood during the rainy season, waste clogs the system and starts flowing into people's homes, carrying with them diseases and vast amounts of trash.

10 volunteers were present in the field for the clean-up including partners. We picked about 1000kg of plastic bottles on this particular clean-up day for about 2-3 hours.

The waste picked on this day was the plastic waste bottles. The plastic bottles were collected then weighed using a weighing scale and recorded. The collected plastics was transported to storage site for reusing.



Weighing of plastic waste

Cleanup of plastics



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### April 2020 activities

#### **Environmental education and anti poaching patrol in the Douala-Edea national park, Cameroon**

E2F team continued their environmental education and increase awareness in the Douala-Edea national park. We did the environmental education with 20 fish smokers both male and females during a training workshop. We used the Community-based Ecological Mangrove Restoration (CBEMR) approached during the environmental education to educate the population.

Another activity that was implemented during this month was anti poaching patrol in the rich ecosystem of the marine-terrestrial Douala-Edea national park. We took a boat to patrol in the marine-terrestrial ecosystem of the Douala-Edea national park, where we saw different species of primates, marine species, the rainforest and the mangroves forest of the park, and we were monitoring the activities of the local population in the park.



Training workshop with fish smokers



Anti Poaching patrol



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### June 2020 Activities

#### Clean up events

Throughout the month of June 2020, E2F organized 03 consecutive cleanup events and provided incentives to the waste pickers. E2F is strengthening the plastic supply and value chains, creating new jobs, as well as relieving Douala, Cameroon from plastics pollution. We aim to change the paradigm on plastics by monetizing and turning what was once waste into a resource, as a way to reduce extreme poverty in Cameroon. This implies for every kilogram of plastic waste bottle picked up and delivered to E2F, the individual will receive cash payment, a reward for cleaning up their local communities.

This way we provide immediate life-saving aid, in a way that also keeps building waste management systems, cleaner and healthier environment, formalize the informal sector, and in the long term also achieve better local health, improved infrastructures and reduced risk of spread of diseases.

The clean up events took place in a river in Douala, Cameroon highly polluted with plastics waste. 18 volunteers participated in the in the cleanup exercises and received their incentives. The plastic waste was picked up, weighed, registered and collected. During the 03 cleanup events more than 2000kgs of plastic waste was removed from the river.



Plastics waste Ambassadors



picking of plastics waste



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### July 2020 activities

#### Construction of eco-chairs, eco-benches and bulb coverings from plastic bottles

E2F valorizes plastic waste bottles by reusing plastic waste bottles to construct eco-friendly products like eco-benches, bulb coverings, eco-chairs, and among others.

After collecting more than 5000kgs from landfills and rivers we then reuse the plastic bottles sustainably by using it to construct eco-friendly products..



#### Construction of eco-benches



E2F waste Ambassador

Collected plastic waste bottles



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### August 2020 activities

#### **Environmental education and Replanting of mangrove plants in the Douala-Edea national park.**

E2F team made up of 4 field assistants and 01 intern continued with their environmental education in mangroves communities in the littoral region of Cameroon. We started our environmental education campaign by having focused group discussions with the local populations. The fish smokers and farmers were the main groups who were educated because they exert high pressure on the mangroves forests. We used the Community-based Ecological Mangrove Restoration (CBEMR) approach during the environmental education to educate the population. The mangrove replanting exercise was carried out in a degraded mangrove forest by engaging 5 communities' members. The mangrove plants were harvested from the wild and replanted in the degraded site. *Rhizophora* spp was the mangrove plant species that was replanted. More than 300 mangrove plants were replanted at a spacing of 2m by 2m.



Replanting of mangroves plants



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### September 2020 activities

#### Clean up event: World clean up day 2020

In celebration of the world clean up day 2020, E2F as an organization addressing the issue of plastic waste also participated in this international event. More than 20 E2F plastic waste ambassadors participated in this international event. The clean up event took place in a river in Logpom, Douala-Cameroon. This river is highly polluted with plastic bottles and the river is biologically death. The plastic bottles were picked up, weighed, registered and collected for reusing. More than 1000kgs of plastics waste was removed from the river during the clean up event and collected.



Clean up event



E2F waste Ambassadors



Weighing of the collected plastics



E2F Plastic Waste Ambassadors



## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### October 2020 activities

#### **Raising awareness and environmental education in lake Ossa wildlife reserve, Cameroon**

Lake Ossa wildlife reserve is a marine protected area with a great biodiversity of many wildlife species including 80 families of fishes, snakes, lizards, turtles, vulnerable African manatees the most charismatic specie. Lake Ossa represents 90 % of the Lake Ossa Wildlife Reserve. The protected area needs an efficient management plan to ensure proper use of natural resources and to mitigate the main threats posed by overfishing, poaching, bycatch, deforestation, erosion, sedimentation, eutrophication and the invasive *Salvinia* plant in the lake Ossa..

It is in this context that E2F continued her environmental education in the site. We organized meetings with fishermen and farmers who are the main drivers of the degradation of the lake. During the environmental education we discussed with the attendees on the importance of the lake Ossa wetland and their role to play for the conservation of the lake. We visited the lake and examined some realities in the field of the threats posed to the lake and the sustainable solutions to be taken to champion the cause of the threats.



### November 2020 activities





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### **Faisability study on the threat of invasive *Salvinia molesta* plant in lake Ossa**

The major threat in the lake Ossa currently is the presence of the invasive *Salvinia* plant in the lake. In 2015 *Salvinia molesta* a plant native to Brazil was found in lake Ossa. In 2019, the invasive *Salvinia* plant spread more aggressively in the lake especially in the hot-spot of African Manatees the most charismatic species in lake. Presently the *Salvinia* plant has already occupied over 20% of the total surface area of the lake.

As a step towards the mitigation of the threat of invasive *salvinia* plant in lake Ossa, E2F team and local population (fishermen) shall engage a participatory manual removal of *Salvinia* plant using hand nets, baskets, and nets. We shall also a mechanical trawl collection system for the mechanical removal of *salvinia* plant. This is involve participatory approach involving the local populations (fishermen) in the activity. The collected *salvinia* plant is valorized locally by using it to produce manure and biogas. We give the collected *Salvinia* plant to a community based organization, which uses *Salvinia* plant to produce compost (manure) and biogas. The produced compost is sed by the local population for organic agriculture and the biogas is used for cooking in households.



**Invasive *Salvinia* plant in lake Ossa**



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### December 2020 activities

#### Cleanup event at Pont Combi, Douala-Cameroon

E2F as an organization addressing the issue of plastic waste always organises cleanup events in regular bases. More than 20 E2F plastic waste ambassadors participated in cleanup event. The clean up event took place in a river at pont combi, Douala-Cameroon. This river is highly polluted with plastic bottles and the river is biologically death. The plastic bottles were picked up, weighed, registered and collected for reusing. Over 2000kgs of plastics waste was removed from the river during the clean up event and collected.





## E2F ANNUAL REPORT OF ACTIVITIES, 2020

### Our Partners and Supporters





## E2F ANNUAL REPORT OF ACTIVITIES, 2020

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