

Annual report 2020

Activity Report

Our team started the new year 2020 highly motivated to meet again the high expectations from 2019. The goals and results of the various association activities are explained below.

Operations

This area focuses primarily on the further development and opening up of new sites in Kenya. This includes the construction of new Spirulina basins, the optimization of cultivation and harvesting processes, and the further training of our farmers. For 2020, the focus for our new Ebukanga site was on establishing the spirulina farm. The basin was successfully established in 2019 and should provide spirulina to the population in the future. Initially, spirulina was to be grown and harvested on a test basis. Subsequently, we had the goal to have our product certified as food as well. During this period, our farmers should gain more experience in handling the basin and cultivating Spirulina. This includes the harvesting process and the proper circulation of the spirulina. This is necessary to allow high and uniform growth of the algae. Once these points have been successfully completed, consideration should be given to expanding the site and developing new locations.

However, 2020 turned out to be increasingly negative. The onset of the Covid-19 pandemic prevented stays in Kenya, which set back the development of our Ebukanga site. In addition, our Spirulina starter culture was found to be contaminated, resulting in the current Spirulina cultivation having to be abandoned. To restart the cultivation, the tank must be completely drained and refilled with a new starter culture. Unfortunately, this was not possible due to the Covid-19 situation. Contamination of a tank is a fundamental problem when growing Spirulina. For this reason, we set a goal in 2019 to develop an Automated Microscope Analysis to detect contamination and establish a standardized protocol to address contamination. The development of the analysis requires local measurement data from the basin from Ebukanga and could not be completed due to the elimination of the Kenya visits. The continuing protocol for contaminant control is based on the Automated Microscope Analysis and remains a work in progress. Completion of these two tasks is expected in the coming year.

The situation in Kenya was further exacerbated by the outbreak of a plague of locusts in Africa. Tight food availability worsened once again. Since our basin was not functional and we still wanted to support our partners in this difficult situation, we decided to make a food donation of 2000 Euros to our partner organization Village to Global. This organization bought food on site with the provided donations and distributed the rations to the families in the area. In total, 415 families could be supplied with the necessary food for three to seven days with the donation. Our farmers were also not demotivated by the hopeless situation. After a short time the idea came up to use the basin for a fish farm as long as it cannot be used for spirulina farming. Further positive news also came with the goal of opening up new locations: We were able to win a new partner in Mombasa. Edward Kute was enthusiastic about our idea and with the help of our construction

plans he was able to build a Spirulina tank to supply the local population. In addition, we support him in the improvement of the plant. Paddle Wheels are used to circulate spirulina. These support the mixing of water, spirulina and oxygen so that the spirulina can grow evenly in all basin sections. We are currently building a new paddle wheel in Germany, which we plan to put into operation during our next mission in Kenya. Our prototype is already well advanced and should be able to be used as efficiently and sustainably as possible in Kenya through our research in Germany. Furthermore, we try to support our locations and partners actively in 2021 according to the circumstances.

Technology

This area of activity deals with the development of the Spirulina sensor. With the help of real-time data from the tanks in Kenya, we can track live in Germany whether our tanks are on an optimal growth path. This means that the Spirulina grows as fast as possible so that as much as possible can be harvested over the year. Based on the data, the optimal harvest time can be determined and possible adjustments can be made by the farmer. In 2019, we made great progress in the further development of the sensor and had planned to put our prototype into operation in Kenya in 2020. We were unable to realize this goal due to the pandemic situation. We hope for an improvement of the general situation soon and with a deployment of the sensor next year.

Finance

This area is responsible for the available financial resources of the association. It is fundamental for the continuity of the project to secure the funding for future foreign missions, the development of new sites and the research and development work of our team in Germany. The following results refer to the current status on the day of the general meeting (cut-off date: 21.12.2020).

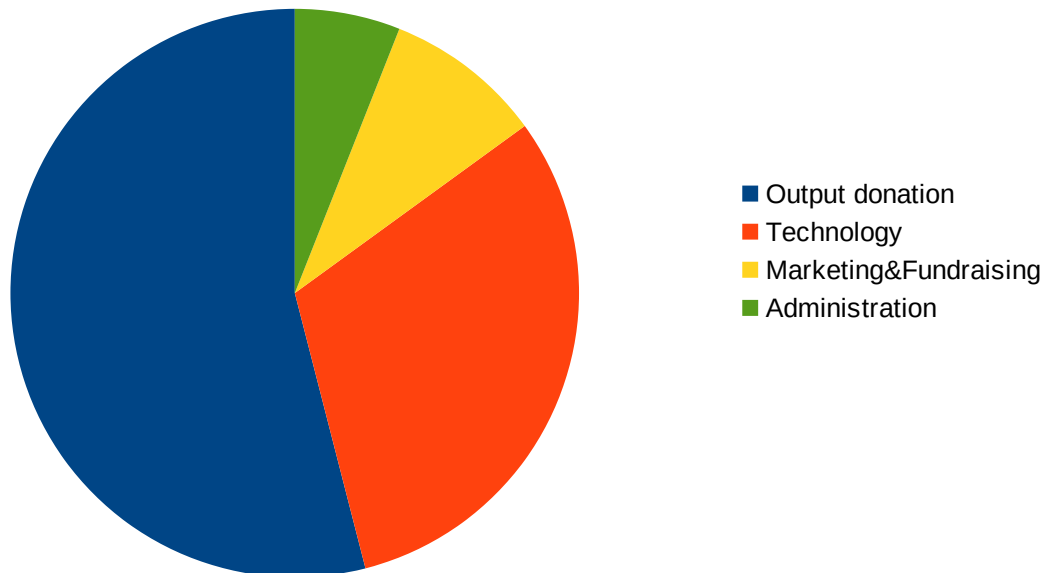
In 2019, the objective for 2020 was set to build up secured funding for the upcoming projects. We were able to achieve this goal by increasing the cash balance from 14,624.64 euros in 2019 to 21,533.81 euros in 2020. The disbursements have an amount of 3864.34 euros, while the receipts amount to 9,590.57 euros in 2020. The increase in financial resources is also due to a backlog of investments due to the Covid 19 pandemic. A pandemic-related provision of 3000 euros is therefore made. Expenditures for additional tanks and better equipment for Spirulina farmers could therefore not be made. For this reason, the largest disbursement corresponds to the donation for food in the amount of 2000 Euros to our partner Village to Global. The deposits are distributed between corporate, organizational and private donations, as well as membership fees and operations activities. The funding goal for 2021 is 5000 euros.

Cash Balance (2019):	15.290,97 €
Revenue	9.590,57 €
Expenditures	- 3.864,34 €
Cash Balance (2020):	21.533,81 €

Use of funds

Expenditure		3.864,34 €
Output donation	54%	2.035,00 €
Technology	31%	1.140,78 €
Marketing&Fundraising	9%	347,67 €
Administration	6%	212,11 €

Expenditure by category



Source of funds

Revenue		9.590,57 €
Corporate donations	53%	5.000,00 €
Private donation	30%	2.811,79 €
Operations	7%	679,33 €
Membership fees	6%	564,00 €
Organization donation	4%	406,67 €

Revenues by category

