

Annual report 2021

In the annual report, we would like to transparently present the work progress, as well as challenges and problems of the past year and go into more detail about our association's work. The annual report is divided into the activity report and the financial report. The activity report explains the progress in the respective departments Operations, Technology and Marketing & Fundraising. The financial report shows separately the financial development of the association.

Activity Report

Operations

Despite the difficult overall situation caused by the Covid 19 pandemic, we were able to open up and fully establish another site last year. The new location is in Mombasa. Since 2019, we had been in contact with Edward and Inshape Fitness Limited, who had wanted to establish a spirulina farm in Kizingo, Mombasa for quite some time. Through the strong efforts of Edward, the time had come in November 2020: the first ponds were built and at the beginning of 2021 we were able to release the starting culture in the small pond. After successful cultivation and first harvest in March, spirulina cultivation was then also started in the large cultivation basin in April. Since May, the spirulina has been regularly harvested and processed. The quality of the spirulina was verified by laboratory tests and our plant in Mombasa received market approval in May. The first ready-to-sell spirulina packs entered the Kenyan market in July.

Currently, 300g of spirulina can be harvested daily from the large cultivation basin with a size of 4x15x1m. This spirulina is currently sold as a dietary supplement in gyms near Mombasa. In the future, this income will support a cooperation with local medical facilities. People suffering from malnutrition will thus have access to inexpensive spirulina that can meet their needs for high-quality proteins and vitamins and thus combat the symptoms of deficiency. Because the Covid-19 pandemic has complicated visa requirements to enter Kenya, we were unable to make our planned flight in August. Because of this, we have not been able to resolve the problems in Ebukanga, where locals are struggling with ongoing contamination of spirulina, and hope the situation will improve soon. Meanwhile, in Germany, we are working on techniques to improve harvesting processes and growing conditions. Last year, for example, we were able to equip the paddlewheel with a motor and test it in a small paddling pool.

Technology

Based on the experience of the last visit to Kenya in 2019, the following points were revised in the sensor development: The housing concept of the sensor was optimized for better and more robust floating behavior. A second type of sensor (SmartSpiru) was developed, which in contrast to the first sensor (SuperSpiru), collects less basin parameters, but is cheaper and easier to handle. As part of the production optimization, both sensor types are now based on the same circuit board and differ only in the number of sensors attached. In addition, the software was adapted to be compatible for both systems. In special cases, the sensor hardware was optimized by hand. The sensors now send the collected data to the Amazon Web Services (AWS) database, and a two-month error-free runtime test of the sensor was conducted in Germany. Thanks to the solar panels, the batteries were still fully charged at the end of the test. Currently, work on the sensor hardware

and software is ongoing and documentation is maintained on Github.com, which will be made available to the public afterwards.

Marketing & Fundraising

While working on these topics, we try to keep our supporters always up to date and therefore we would like to make the latest information about our association comprehensible and clearly available. For this reason we have started to revise our website at the end of last year. Besides a new design and a location map, an online donation form is now available. Furthermore, we are committed to transparent association work and provide relevant information about our organization on our website. For this, we have received the seal of the Initiative Transparente Zivilgesellschaft (ITZ).

Since we would like to share background stories and anecdotes about our project in addition to the official information and channels, the idea came up to start our own podcast. Our project members Anja and Flo took up the cause and produce a 20-minute podcast in German once a month, which is available on the common podcast platforms under the name "Thriving Green". The podcast gives an insight into our association's work and tells the background of the project idea. In the meantime, eight episodes have already been published.

Financial report (reporting date 31.12.2021)

The financing of the association is still secured, but larger investments in Kenya could not be realized due to the ongoing pandemic. Due to the lack of investment opportunities, a provision of 1,000€ is made. The total amount of provisions thus increases to 4,000€. The biggest expenses this year include the creation of the website, as well as the purchase of motors for the paddle wheels (paddle-wheels). On the income side, the competition prize money for third place in the "Food" category from the Zayed Sustainability Prize secures the future of the association. The funding goal for 2021 of €5,000 was met, with additional deposits of €5,449.01. The new cash balance is 27,013.50€. A funding target of 5,000€ is set for the coming year.

Overall result¹

Cash balance (2020)	21,533.81€
Inflows	13,248.20€
Outflows	- 7,799.19€
Cash balance (2021) ²	27,013.50€

Income

Administration	440.37€
Organization donation	12,424.74€
Private donation	15.02€
Total Income	12,880.13€

1 Note: The overall result is based on a cash flow consideration, therefore cash inflows and outflows cannot be equated with income and expenses. However, the difference between inflows and outflows and income and expenses is 5,449.01€ in both cases.

2 The variance of €30.68 in cash balances from 2020 and 2021 after offsetting cash inflows and outflows is due to exchange rate fluctuations between the Kenyan shilling and the euro.

Expenses

Marketing & Fundraising	- 2,532.02€
Operations	- 1,135.29€
Technology	- 3,763.81€
Total expenses	- 7,431€