

Annual Report 2020

General

2020 was a year of reflection and of a change of course. Due amongst others to the Corona crisis, we focused even more on our immediate environment than we had before. In addition, a number of projects have been critically evaluated. And in the summer we chose to invest our efforts more in practical application rather than on innovation and more on the local rather than the international level. But our mission is still aimed at climate, regeneration and water. We no longer exclusively work on ocean water, but also on rain water. Even more than before, we want to look for symbiotic relationships between humans and nature. Our new course still needs to be further developed in 2021 and in order to give more shape to our new direction, the concepts of 'living lab' and the 'proeftuin' were introduced.

Current projects

Seaweed and soil improvement

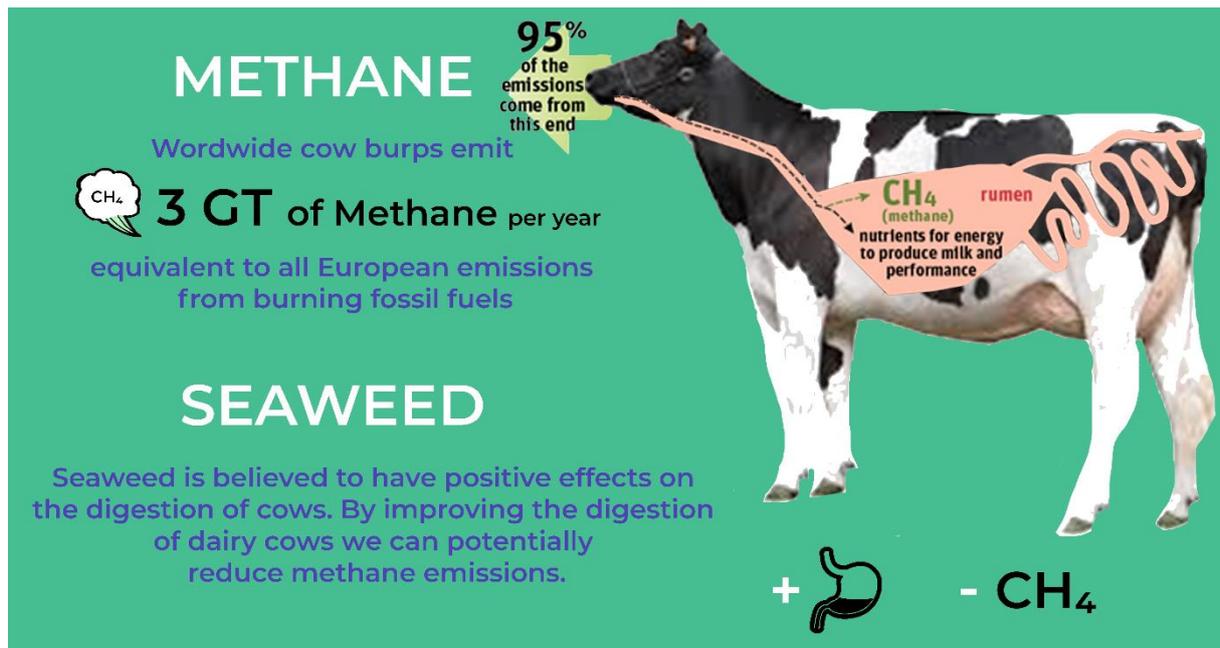


The experiment with fermented seaweed - *Saccharina Latissima* - in tulip cultivation was concluded in the summer. The aim of this project was to see whether seaweed could be used to improve the moisture balance of the soil, which could in turn reduce the risk of productivity loss due to drought and is generally expected to have a positive effect on productivity and soil quality. The research was prompted by a 2019 lab experiment, which showed that seaweed (*Ulva Lactua*) had an effect on evaporation. The experiment was carried out in collaboration with the Proeftuin Zwaagdijk and Hortimare.

Several challenges arose during the export. One of them was the malfunctioning of the moisture meters.

Unfortunately, the data from the experiment are incomplete. Disappointingly, no significant effect of seaweed on the growth or quality of tulips could be

measured based on the available information. A small positive effect on soil fungi was observed, but again not among all the groups treated with seaweed. Because we do not see a significant effect on yield, there is currently no clear business case for further development of seaweed as a soil improver. There is interest and willingness at WUR to conduct additional research but funding should first be raised.

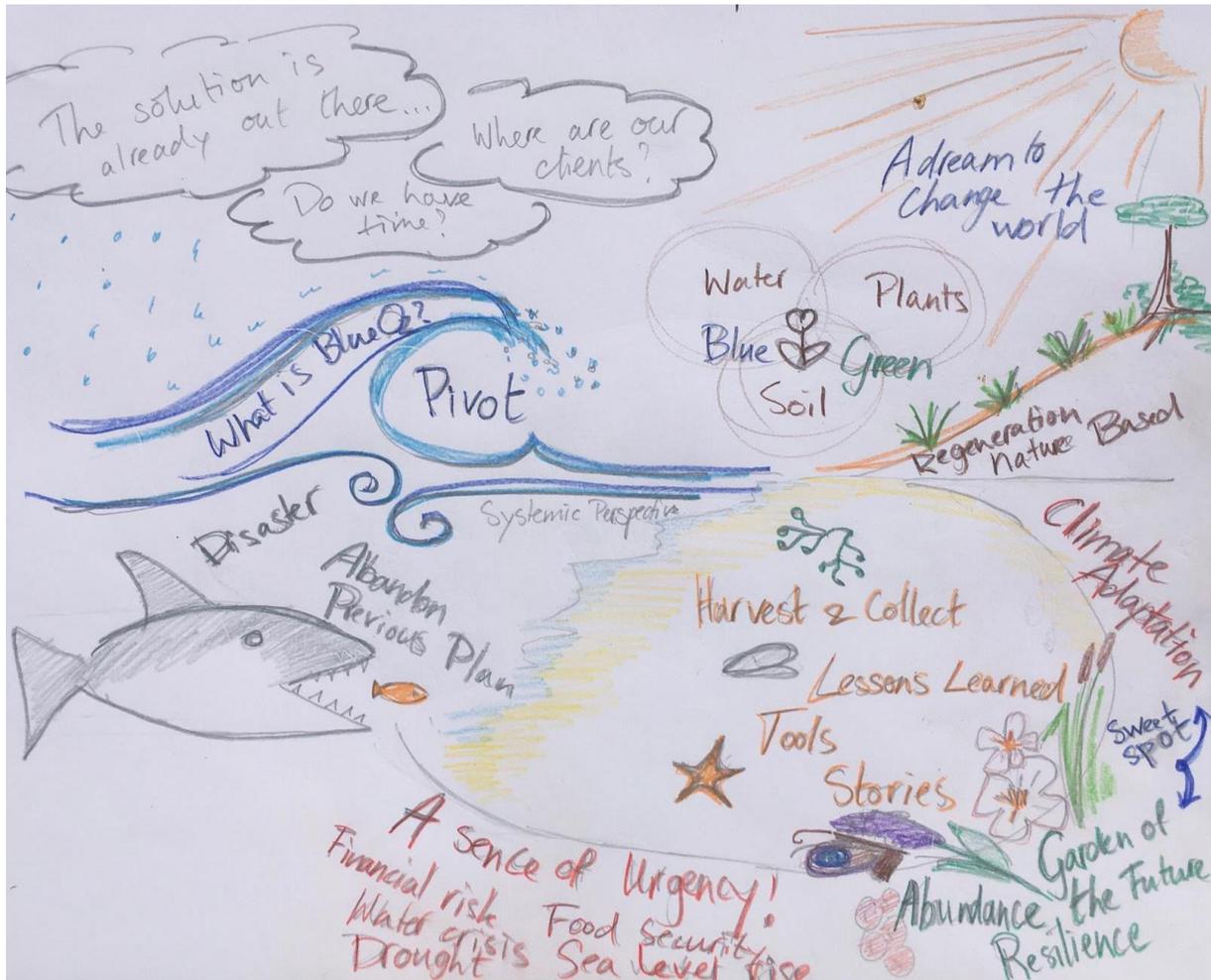


The second seaweed project aims to reduce methane in dairy cows by using different Dutch seaweed species. On the basis of a desk study and a lab experiment, a seaweed species was selected for a testing with cows. Although the first results from the lab were promising, the results did not translate to the practical environment. There are some indications, however, that the seaweed may positively contribute to the health of the cows and, in connection with this, it has been found that seaweed has an effect on milk production (especially lactose). The results of the application of "Asparagopsis Taxiformis" for methane reduction in cows have also recently been announced. This research however shows that the functional element in this species (bromoform) is not without risks to the health of cows. Our research with "Saccharina Latissima" indicates some possible benefits. The results still require more research, but we must remain critical of the investment in time in relation to the social and economic benefits of such research.

Evaluation

We started the two projects with seaweed based on the belief that the cultivation of seaweed makes a positive contribution to the climate. Seaweed cultivation is a relatively young economic sector with many challenges. There is a need for practical application of promising opportunities. From the point of view of Blueo2 we see the most promising applications in the agri-food sector and not, for example, in biofuel or plastics. The two projects mentioned stem from the desire to give an impulse to the regenerative application of seaweed in crop cultivation and milk production. The practice of innovation in agri-food is complex and the all investments into projects require a lot of time, energy and money. The outcome so far has been limited given the investment of time and resources. Especially the fundraising takes a lot of time in relation to the return. Here is also the question of balancing the need for systemic transformation of the agri-food sector versus the reality of protracted interests in continuing the status quo.

Changed course



"New Combination" meets Permaculture meets adaptation

Innovation comes in many shapes and forms. Bringing together existing knowledge and making new combinations is also a form of innovation. The fact is that a great deal is already known about climate change and regeneration on a scientific level, but there are still few concrete applications of that knowledge. If implemented correctly, a lot of progress can be achieved based on the available body of knowledge. Our intention therefore is to continue with research and innovation, but to invest an increased share of our time and resources into the creative application of knowledge. It is important to continue to respond dynamically to the environment.

We note that there is an increasing need, especially on the local level, for climate adaptation and that the focus of mitigation is traditionally limited to the fields of energy and fossil fuels. However, we see opportunities to combine climate adaptation with mitigation through the application of regenerative design in public space.

The tools we use are based on permaculture and design thinking. Together with other existing fields such as "rainwater harvesting" and "xeriscaping", we can create dynamic robust designs for people and nature. Such designs are innovative in character but often less closely attached to scientific research.

Future garden



A new project has emerged that related well to our new course: the future garden. We view this project as an excellent testing ground that links our mission on goals to a concrete and manifest part of the Netherlands. An extensive project proposal has been written but summarized the mission, vision and goals of the project:

Vision

A green oasis for people and nature in the middle of the district.

Mission

Co-creating a (climate) resilient design for a public space that creates opportunities for residents to connect with nature and with each other.

Summary of targets

- Cooling
- Improve water management
- Maximize rainwater infiltration
- Biodiversity
- Education
- Nature experience
- Meeting and connection
- An exemplary function of climate-proof greenery

Opportunities for further exploration

We believe that the strength of BlueO2 is to connect a holistic vision and ambition with effective, hands-on projects and want to further investigate the extent to which we can join forces at a local level and create added value. So far, BlueO2's experience with "multi-stakeholder project management" and mobilizing resources and knowledge has proven to be very useful on a local and small-scale level.

Within the "the future garden" project there is more attention to people- aspect and the social side of sustainability. In this area we can further develop existing tools from Permaculture and from design thinking (such as a community asset map).

With regard to "the future garden"-project, we have sought cooperation with various organizations and companies, such as EWB, the developer of the "Urban Rainshell." It appears that these kinds of innovative projects, much like BlueO2 itself, are looking for concrete application possibilities. In the future we may be able to play an even greater role in connecting supply and demand with regard to climate innovations. We also see opportunities within the current cooperation we have initiated with housing corporation Wooninvest and hope to be able to do even more for sustainable urban living.

Based on this pilot (living lab), we also see opportunities to initiate research, for example into water and soil quality. But we also see potential for developing and applying new revenue models (paying for ecosystem services).

With all these new possibilities and options within sight and scope, we should to take a more serious look at capacity enhancement in 2021.

Finances

In 2020, the foundation's finances were limited to donations from our own circle in order to cover running expenses. A number of funding applications in 2020 (especially Echoing Green) took a lot of time but yielded relatively little revenue. Nevertheless, a great deal has been done, but little has moved through the BlueO2 bank account. Despite the fact that Zairah Khan has made a substantial contribution to fundraising from the foundation.

In the cow project, LTO Noord and WUR acted as secretary for the subsidies raised from POP3 and Proseaweed (top sectors). Zairah Khan was compensated for part of the time as a freelancer because it turned out that it was not possible to execute the project under the BlueO2 banner. It only became apparent at a late stage that not being contractually employed with BlueO2 was a formal disadvantage. MURW, the sole proprietorship of Zairah Khan, acted as secretary for the tulip project because there was no formal income for this project, but an solely a SME knowledge voucher. The knowledge was then made available "in kind" by MURW to the BlueO2 foundation. The income for the projects of BlueO2 is shown in the annual financial report as contributions in kind.

There is nothing wrong with recruiting contributions in kind and gathering knowledge through partners, but it would be nice if more income would structurally move through the foundation's account, so that in time the ongoing costs such as the website, bank, etc. meeting costs etc. can be covered from overhead costs for projects. In addition, the share of voluntary work is still disproportionate to the total volume of work performed. If we want to expand the projects and the team in 2021, it is necessary that more paid work is carried out.

Financial Report

Income in Euros

Donations

Private	860,00
Funds	0,00

In kind (non-monetary) contributions

Website en communication (MURW)	Nvt
Board meeting costs (E. Fuleky)	Nvt
Seaweed soil project (Hortimare)	Nvt
Research costs soil project (MURW)	Nvt
Research costs dairy trial (WUR & LTO Noord)	Nvt
Voluntary labour	Nvt

Totaal income in cash 860,00

Totaal income in kind Nvt

Expenditure in Euros

Bankcosts 58,00

Balance Sheet

Per 31-12-2020

ACTIVA

Vaste activa	
Immateriele activa	0
Materiele activa	0
Vlottende activa	
Vorderingen aan debiteuren	0
Liquide middelen	801,96
TOTAAL	801,96

PASSIVA

Eigen vermogen	801,96
Reserves & voorzieningen	0
saldo winst-verlies	
Kortlopend	0
Langlopend	0
vorderingen van crediteuren	0
TOTAAL	801,96