

# The Netherlands • Green Vocational Schools committed to a WSA

*Special thanks to Sandra Menkhorst and Vivian Siebering for this contribution*

In the Netherlands the development of ESD in primary and secondary education was initially informed by Environmental Education (EE). In the Dutch language this is referred to as *Natuur-en-Milieueducatie*, or Nature- and Environmental Education<sup>37</sup>. Whereas EE was well understood in educational practices, ESD was not. EE-organisations played a big role in developing lesson plans, curricula, modules, projects, etc. covering SD-related topics to be added on or infused into the regular curriculum. At policy-level and through national education institutes, such as the National Institute for Curriculum Development (SLO), attempts were made to influence the official learning objectives and graduation requirements to incorporate SD-related issues.

During those early years of ESD-development, schools also started paying attention to reducing their own ecological footprint. In recent years, for reasons varying from increased societal concern around climate change, health and well-being, to the desire to make education more relevant and responsive in light of the rapidly changing and confusing world, schools have started to see SD and the SDGs as a trigger to rethink schooling, teaching and learning altogether. Interdisciplinarity, boundary crossing between school and community, action-oriented issue-based learning, student participation and voice, have all been identified as important. Sometimes supported by NGO's, like [SME-Advies](#)<sup>38</sup>, the coordinators of the Dutch Eco-School program, or network organisations like [Leren voor Morgen](#)<sup>39</sup>, schools have begun developing what might be considered a WSA to, basically, good education.

This example is from Zone College, a collection of eight Green Vocational Schools, formerly known as agricultural schools, situated in the east of the Netherlands: Zwolle, Twello, Enschede, Hardenberg, Borculo, Deventer, Almelo and Doetinchem. They provide green education for lower-secondary vocational education, upper-secondary vocational education, and adult vocational education. Vocational schools seem to have an edge in this transition since they have always used embodied, applied and interdisciplinary forms of active learning, and have a tradition of working with the local place/land and local stakeholders. Zone College's sustainability profile is also

supported and enhance by their participation in the Eco-School scheme and works closely with the Eco-School framework which has 7 key steps.

Established by the Foundation for Environmental Education (FEE) in 1992, the Eco-Schools programme represents the largest international network of students and teachers. The programme has been implemented, albeit in various shades of green, in 59,000 schools in more than 72 countries<sup>40</sup>.



*Eco-Schools seven steps<sup>41</sup>*

Eco-Schools' seven step plan (above) helps the Eco-team getting started. Step 2, 3 and 4 form a cycle of measuring, planning and evaluating, which the Eco-team runs by annually. Students execute an environmental review within the school and carry out actions to make the education, the building and the community in and around the school more sustainable<sup>42</sup>.

An important aspect of being an Eco-School is bringing in students' voices in deciding what to learn and what to do. The student-led Eco-Team that coordinates and initiates sustainability initiatives in and around the school, is a key tool in realising this. Students who want to join this team need to formally apply and provide a sound motivation why they want to be actively involved. At Zone College Twello, students have a high level of autonomy and learn from each other as student teams organise activities for their

peers. The Eco-Team has its own Instagram account and YouTube channel for sharing the schools' sustainability efforts with the outside world.

The image, from Zone College's campus in Twello, is an example from one year's (2019) Eco-Code development. An Eco-Code is the Eco-Team's mission statement demonstrating – in a positive, clear and imaginative way – the school's commitment to improving its environmental performance. The Eco-Code can be anything you want – a song, statement, poem, rap, acronym or something even more creative. A recent Eco-Code focused on problematising and combating plastic soup by creating an imaginative work of art. The artwork shows how we are surrounded by plastic, and that there are no more plastic-free places. Students investigate ways to reduce the use of plastics in the school and in their home environment, engage in community clean-ups and engage in awareness raising activities. Through this Eco-Code a link is made between the local and the global.

**“Sustainability is really in the DNA of the school, both in the building, the teachers, the lessons and the environment”**

*Hak van Nispen*

“Increasing attention is being paid to healthy living, safe food, sustainability, nature and a green living environment. This requires well-trained people and new knowledge. As an educational organisation we contribute to a healthy, green future for people and the world. In doing so, we constantly seek coordination between the needs on the labour market and those of our students. With care and attention, we offer our pupils, students and employees a green, challenging learning environment in which they discover new possibilities. And in which they develop with head, heart and hands. On your own and especially

together. In this way they grow into self-conscious, caring, enterprising and socially involved people. Global citizens with an eye for sustainability and quality of life”<sup>43</sup>.

**The following contribution is by Vivian Siebering, Sustainability coordinator at Zone College, and Sandra Menkhorst, educational advisor of the secondary school (age 12-16) campus in Doetinchem:**

Zone College Doetinchem, is located in a semi-rural public green vocational secondary school consisting of just over 1000 students between the ages of 12 and 17 years. Students are mostly native Dutch with a non-immigrant background and tend to have an agricultural or rural background. In 2017, Zone college also started the work to become an ECO-school through the Eco-Schools programme. At Doetinchem campus, along with all the other Zone College Secondary Schools, developed its own Green Profile curriculum which has two key components. During the first two years, students participate in 'Green World Orientation' which is a practice-oriented course focusing on cross-cutting green vocational themes: Animals, nutrition, landscaping and creative vocations. In the final two years the students can combine one of these themes of their own choosing with a sphere or world in which they want to explore the theme in more depth. These worlds are: The living world, the active world, the healthy world, the creative world, and the green technology world. Working with these four domains and four different worlds throughout the entire four-year program assure that students are actively engaged in hands-on sustainability-related issues every school week. Still, there the curriculum greening could go deeper when playing by the rules of the Natural Step (<https://thenaturalstep.org/>) which inspire staff at Zone College. One area of improvement is the purchasing of the materials students use for their creative

*Zone College Secondary school Eco Code*



design and construction work. Often these materials are bought at a local discount store without paying much attention to the ecological and social footprints of the materials. Another example comes from the animal domain where students learn about the wellbeing of domesticated rabbits and their natural behaviour. However, the way the rabbits are housed at school does not necessarily reflect

### Key WSA Principles in action at *Doetinchem secondary school*

#### Vision, Ethos, Leadership & Coordination

- The vision of our school is clear, visible in school and known by teachers. Sustainability is part of it
- Zone college has 8 locations in a large area. Since a year, there is a sustainability coordinator who is developing now a vision and strategic goals for sustainability for the whole organisation of Zone college

#### Curriculum

- We believe that sustainability is in the heart of our curriculum, but we want to improve it and develop circularity in our school through our curriculum. For example, by using the coffee grounds to grow oyster mushrooms, using the harvest of our kitchen gardens in the cooking lessons, selling the things we make, in other words: giving things another life by closing cycles

#### Pedagogy & Learning

- Tailor-made hours (Maatwerkuren) and moments of interest (Interessemomenten) - give our students the opportunity to choose what they are interested in
- Our MECA week is a good example, but we want to develop more of this kind
- Head, heart & hands philosophy

#### Institutional Practices

- We try to connect all technical installations to the curriculum and involve teachers to work with them
- The design of the building invites sustainability

#### Capacity building

- There is no separate programme, but the staff learns a lot by doing: by speaking with the companies that install the technical installations for example, by speaking with the sustainability coordinator, there are stimulated reading books and learn a lot by preparing projects like the *Make Earth Cool Again* week

#### Community Connections

- Business collaborations with small- and medium enterprises traditionally already exist in green agricultural schools

what is taught. Often teachers want to do better but need time to investigate and resources to act accordingly. Both are often lacking. Another area of struggle or contention is how to navigate the tension between what society is increasingly demanding from farmers in terms of sustainability and animal well-being, and the way the parents of the students – many students grow up on a farm - manage the farm which does not always correspond. Teachers are confronted with these tensions and emotions that the intense discussion might evoke and dealing with them in the classroom is a challenge. On the other hand, the school does also try to walk the talk, for instance in the energy domain by creating a climate neutral building with the support of Eco-Schools.

Another curriculum link is the major project weeks focussing on interdisciplinary sustainability topics. In 2021-2022 the school created the project *Make Earth Cool Again* (MECA). During the MECA week, the majority of theoretical and practical lessons for the first-years students at of Doetinchem focus on sustainability. Teachers take the lead, and form working groups that consist of an educational developer and students, and together they design the program and its activities. As a result, they themselves learn a lot about the different meanings, complexities and ambiguities that characterise sustainability issues, and



As part of MECA week students at Zone college learn about how sustainable jeans are, including the raw material life cycle

about ways to make these accessible to the students in a meaningful way. Critical here are the workshop that involve local businesses and NGOs and the guided tours for the parents of the students. The activities were interesting for students because they connected with their everyday lives. For instance, the challenge of 'beating the micro-beat', which made students aware of micro-plastics in toothpaste and cosmetics, challenges them to come up with healthier and more sustainable alternatives. Another important aspect of the project weeks is the visual documentation of the process and the outcomes using filmmaking. The resulting documentaries can be integrated in the curriculum for the next generation of first-year students. The working groups which did the preparation of the MECA week are an example of peer-to-peer learning, the students 'taught each other' while developing the week, with some input from the sustainability coordinator. As part of MECA, local companies came to give free workshops because the social purpose is important for them, and they genuinely want to contribute to the education of their new future employees.

The sustainable aspects of the school building and school grounds become sources for teaching and learning, while the teaching and learning provides input for making the building more sustainable. After participating in practical lessons and the MECA-week students create and maintain their own gardens for example. Through the new glasshouse that has been designed to be able to treat the school's sewage and wastewater by a filtering system that preserves the nutrients as input for growing vegetables, students come to understand cycles and circularity. Lastly, the building itself – which was quite expensive – is a building that teaches in and by itself as it invites a green spirit and more sustainable behaviour.

**Some reflections** • The agricultural background of our students is a struggle sometimes. Students (and also teachers) that grew up in the countryside, often associate sustainability with the measurements of our government to reduce the livestock. That can have a tremendous impact on their parents' business and creates a lot of stress for many people they know. We have learnt that it is important to give space to these emotions. It is important to acknowledge this, before you can go on to work on sustainability at school.

We want to increase the amount of activating didactics in our lessons and increase the coaching skills of our teachers so they can help students in making their choices. We also want to organise more activities where classes are mixed. Our MECA week is a good example, but we want to develop more of this kind.

The working groups of teachers work very well. They develop themselves and spread information to their team.

### Strengths/Prospects

- The ECO-School scheme and the support provided through SME-Advies provide concrete steps and support for developing a WSA
- The role of the educational advisor to develop new projects and connect the ideas of the different working groups of teachers. Teachers alone don't have the time to work out things like the MECA project week
- The focus on circularity, closing cycles, and creating a local 'micro economy' that generates funding for future sustainability efforts
- Vocational and place-based aspect of the college means a fits well with a WSA due the pre-existing values and environmental focus of the college
- The organisation of special curriculum activities – like the sustainability project week – that include all teachers and all students

### Challenges

- Sometime sustainable solutions cost more and time to explore what is the best choice is needed. Time and money remain a challenge
- To engage every teacher in the school and ensuring that sustainability is implemented in other lessons
- Pedagogically it can be challenging to navigate tensions around different forms of agriculture when having students who are closely connected to the agricultural sector in the same classroom as students who do not have an agricultural background
- Sustainability has to become in everyone's DNA before it is in every lesson!
- Hard to keep track of all the progress and have a clear action plan when there is so much going on throughout multiple aspects of the college. This needs to link better to monitoring, evaluation and assessment

A vision that is built by the staff itself is helpful. And again: You need someone who carries it out. Further: People at the right place and a good vibe in the organisation make things work. A person who has time to facilitate the working groups and connect between teachers and other staff is essential, this is what makes things go faster.

Another example is the construction of our 'Zuiverende kas' a purifying greenhouse. This year we are organising working sessions with colleagues and external partners to translate this system of the 'zuiverende kas' into our curriculum. This is an example of us developing innovative education together. Also, our campus has visual sustainability displays and signs around the campus. For example, the Doetinchem Campus school vision/mission statement is visible for everyone who enters the school.