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EDITORIAL



## Agricultural education in the Netherlands: from crystallizing to dissolving?

In earlier issues of the *Journal of Agricultural Education and Extension* (JAEE), we have reviewed agricultural education policy developments in the Netherlands. But there is an important reason to discuss Dutch policy developments again. In 2006 (Issue 2), we (Mulder and Kupper) published *The Future of Agricultural Education: The Case of the Netherlands* in the JAEE. In that article, three metaphors were introduced to describe possible future scenarios for the development of green education: evaporating (closing down, vanishing), dissolving (in much bigger colleges that have educational programmes in non-agricultural domains), and crystallizing (seeking intra-sectoral cooperation). We stated that the crystallizing-scenario was most promising. This is mainly what happened in the decade after 2006. Green education institutes maintained their relatively autonomous position within the Dutch education landscape, and at that time, the system responsibility for the green education sector was with the Ministry of Agriculture. The conclusions of the publication were in short that:

- agricultural education played an important role in the support of the agri-food sector;
- performance of the agri-food complex needed to be improved worldwide;
- governmental agricultural education policy-making needed to clearly support agricultural education but that this support was breaking down in the Netherlands;
- the shift of the Ministry of Agriculture to restrict its additional support to content-oriented (instead of education-oriented) projects raised severe doubts with respects to its efficacy;
- these changes resulted in tensions in agricultural education;
- parties outside the agri-food system were less inclined to protect the agricultural education sector;
- since the triptych of Research, Education, and Extension (in Dutch: OVO) was privatized, a new knowledge infrastructure was needed.

Most of these conclusions are still valid. Dutch agriculture and agricultural education are being praised in a recent article by Frank Viviano in the September issue of the *National Geographic*. The article, 'How a tiny country feeds the world' (pp. 58–81), is largely optimistic about the performance of Dutch agriculture, and mentions various key features: (potato) yields per hectare which are much higher than the world average, significant reduction of inputs such as water and antibiotics, massive greenhouse horticulture in the Westland region (between The Hague and Rotterdam), colossal poultry farms, the leading position of the Netherlands in seed production, and above all, the Netherlands as the second largest exporter of agricultural products worldwide, after the United States. Of course these are enormous achievements, and there are also many good judiciary, technological, and activist initiatives to overcome malpractices such as animal welfare and pest management scandals (such as the recent scam of using Fipronil in chicken farms), meat scandals (such as the case in which horse meat was sold for

cow meat), glyphosate in food products, and exceeding emission values in livestock farming, about which the article is quite silent. For its success, the Dutch agricultural system is largely depending on its excellent education quality, which is necessary to develop the competencies of future agricultural professionals. This quality, especially of Wageningen University and Research, is indeed globally renowned, as described in the National Geographic article mentioned above. And also in the Netherlands itself, the quality of Wageningen University and Research is recognized. Its education is ranked as being best of the Netherlands by students year after year, and its research ranks highest in the field of agriculture, nature, and environmental sciences worldwide. Secondary agricultural education (provided by comprehensive secondary schools and agricultural training centres) and higher vocational agricultural education (provided by universities of applied sciences) in the Netherlands are also known for their excellent quality.

How has green education in the Netherlands been able to grown into this position, nationally and internationally? An important reason for this is that the green education sector since its beginning has resided under the government of the Ministry of Agriculture (actually the Ministry of Education and the Ministry of Agriculture were responsible for green education together, although the green education budget was part of the total budget of the Ministry of Agriculture, which was integrated at a later stage into the Ministry of Economic Affairs – see below), whereas all other publicly financed education institutions in the Netherlands have been under the government of the Ministry of Education, Culture, and Sciences. There was a strong Research-Education-Extension system, also under the Ministry of Agriculture, in which education benefitted from various funds to constantly renew and improve its programmes. Advisory agencies transferred new knowledge from agricultural research directly to farmers via Winter courses and farmer groups. Their saying was that if farmers had questions, they could call Wageningen University which would help out. (Interestingly, Wageningen University still has a strong interest in the application of sound scientific knowledge in practice and in knowledge co-construction with practice, which is, e.g., visible in the so-called Academic Consultancy Training course, for which commissioners from external organizations provide assignments to student groups in the last phase of their Master programmes to address real problems, and the so-called Education-counter, through which external stakeholders can contact the university to ask practical questions which are then translated into assignments in relevant courses).

However, in the 1980s and 1990s this all changed. The tight Research-Education-Extension system was dissolved, the practical research centres of the Ministry of Agriculture were privatized and merged with Wageningen University (hence its name Wageningen University and Research Center, lately shortened into Wageningen University and Research), of which the national research funding was gradually phased out. New ways of financing agricultural research were introduced, such as – in 2012 – when the Top Sectors Policy was introduced. The Rutte-I administration invested around € 7 billion in these sectors, which are sectors in which the Netherlands excels, amongst which the sector ‘Agriculture and Food’, and ‘Horticulture’. The Top Sectors Policy is still current.

Against this background of neoliberal politics, we (Kupper, Laurentzen, and Mulder) published *Recent Policy Developments in Green Education in the Netherlands* in 2012 in the *JAEE*, which followed up on the 2006 article mentioned above. The 2012 publication concluded that the green sector was facing significant challenges, such as the competition regarding land for housing, other construction (which can only be partly compensated by urban or vertical agriculture) and recreation purposes (for which multi-functionality of land-use is but a partial solution), rejection of certain production methods by the public, changes in European common agricultural policy agreements, the non-attractiveness of the green sector for young people, the

decrease of employment needs, and the dependency on seasonal work carried out by underpaid migrant workers in poor accommodation conditions. It was thought that green education could address most of these challenges by organizational and content-oriented innovation and by offering current and attractive learning programmes. For this, the Green Knowledge Cooperative (GKC) was created, a network organization in which all green education institutes at secondary and tertiary education levels participated. The 2012 article expressed trust in the GKC, which was meant as a inter-institutional body, which would manage the distribution of agricultural education innovation funds, the so-called Green Plus monies, based on calls, proposals and reviews. It was (the Christian-Democratic) Minister of Agriculture Cees Veerman, who was chairman of the Executive Board Wageningen University and Research Center from 1997 to 2002, who insisted on the cooperative approach in green education.

However, the GKC did not turn out to be a great success in several aspects. Various monies for the development and innovation of green education were pooled, and the educational institutions had to submit proposals for project funding. Some institutions were very successful in securing funds for their projects, others lagged behind. This resulted in tensions between the disproportionately successful green education institutes, which managed to receive much more funding from the innovation monies, and less successful institutes. Furthermore, there were doubts about the shared use of the results of the projects, many of which lasted relatively short. At the political level, the GKC, with its enforced cooperative flavour, seemed at odds with the ongoing liberal political climate. Next to that, the policy measure of the Green Plus innovation funds (with a worth of around 25 million Euros) was evaluated. Although the conclusions of the evaluation report were rather positive, the Green Plus budget was cut down to zero in yearly steps until 2016. This was predominantly caused by the general austerity measures in the Netherlands during the banking crisis and the following economic recession. Green education institutes fiercely protested against the budget cut, and maintained that it was also implemented at the cost of the budget in the first money stream.

In the meantime, a more fundamental change was underway regarding the positioning of the green education sector within the national Ministries. In 2010, after the installation of the Rutte-I administration, the Ministry of Agriculture, Nature, and Food Quality, as it was named since 2003, merged with the Ministry of Economic Affairs. The new name of the merged Ministries became Ministry of Economic Affairs, Agriculture, and Innovation. At that time, Prime Minister Rutte was heavily investing in the innovation agenda. After the formation of the Rutte-II administration, the name of the Ministry was changed into Ministry of Economic Affairs (as this Ministry was called before 2010), signifying the decrease of importance of the whole agriculture portfolio within the Ministry of Economic Affairs. The perception of agriculture as less important part of the total national government was reinforced by the fact that as of 2010 the Netherlands did not have a Minister of Agriculture anymore, but a State-Secretary, which is a post under a Minister. This situation has changed again during the recent formation of the Rutte-III administration. Now there are two new Ministers within the Ministry of Economic Affairs, one for Agriculture and one for Climate, next to the main Minister of Economic Affairs.

But, although there is a Minister of Agriculture again, the system responsibility for the green education system will move from the Ministry of Agriculture to the Ministry of Education, Culture, and Sciences in the forthcoming period. This concerns all green departments of junior secondary vocational education which are part of broad secondary school organizations (VMBO), agricultural training centres (AOCs), a regional training centre (PTC), universities of applied sciences (HAO), and Wageningen University. This historic move may have profound impact on green education in the long run.

The move is not totally unexpected. There have been discussions about the repositioning of the agricultural education system to the Ministry of Education during the last series of cabinet formations. Since the Dutch Parliament accepted a motion to move the green education sector already in 2015, it was clear that this was going to happen at a certain point of time. There were various reasons which were mentioned in the motion to make the move, e.g., the transparency of having one education budget, the levelling of financing per student, and the facilitation of the creation of inter-sectoral education programmes. At the same time, it was stated that the achievements of the green education sector, i.e. having continuing learning pathways (from junior to senior secondary and higher education) and the strong relationship with the green business sector, would have to be preserved.

Following a period of various years in which lean alternatives for the GKC, such as the Green Table, the Green Pact, and Multi Years Investment Programs were implemented, green education institutions began to see that there might be a brighter future under the Ministry of Education than under the Ministry of Economic Affairs. It is no surprise then that the current reactions of green education on the announced move are rather positive.


Beginning with Wageningen University and Research, the new position of the university within the higher education landscape in the Netherlands may imply that the growth budget cap of 2% annually may be cancelled. This cap has been agreed upon between the government and university during the late 1990s, when Wageningen University – because of continuously decreasing student enrolments – was nearly dissolved, and had to dramatically cut its budget. The agreement was that annual budgets of the university would not be decreased by more than 2%, but that during times of growth, the budget would not be increased by more than 2%. During the depth of the crisis of Wageningen University, the deal was embraced as a rescue of the institution. However, since the dramatic austerity measures during the years 1999 and 2000, and consecutive educational programme changes, student numbers began to increase again, which was extremely welcome. However, after years of continued growth, the student enrolments had increased by 100% in around 7 years. The earlier rescue cap of a maximum of 2% budget cut soon turned out to be a millstone around the neck of the university, since seven times a maximum growth budget of 2% does not even begin to compensate for the additional costs of 100% more students. So the university started projects on growth: how to manage growth, how to use ICT solutions in education to accommodate more students, how to intensify the use of classrooms, the introduction of evening classes, etc. Although these projects have had their benefits, work pressure of lecturers increased significantly, to a point that it resulted in questions about the balance between growth, quality, and acceptable teaching loads, and to an actual *numerus fixus* for some study programmes, which largely depended on the availability of laboratory facilities. So a move to the Ministry of Education would be a big relief, if the funding would be based on the actual students' numbers. What the university also appreciates is the discussion about the general increase of financing of the technical universities. Wageningen University is now a member of the four Technical Universities (4TU), which will probably receive a higher budget per student than the general universities because of the urgency of educating professionals in the technical domain.

The reactions of the agricultural training centres, associated in the Council of Agricultural Training Centres (AOC Council), are predominantly positive as well. The AOC Council published on its website on October 10 (<http://aocraad.nl/nieuws/regeerakkoord-positief-voor-groen-onderwijs/17294/>) that it is '... glad with the clear statements in the government agreement about the future of green education'. Rien van Tilburg (the current chair of the AOC Raad) mentioned:

We are looking forward to the cooperation with OCW (the Ministry of Education, Culture, and Sciences) and a new trade-departmental relationship with the Ministry of Economic Affairs. ... The cooperation between education, government, and the business sector is secured well in the common Development agenda.

Time will learn whether the benefits of the move of the green education sector to the Ministry of Education will outweigh its costs. We are not extremely hopeful about that, since other sectors, like health care and technology, have a long history of suboptimal alignment of its vocational education with the labour market, which is the key strength of the current 'Golden Triangle' in the agri-food sector: the cooperation between the government, education, and the business sector, and the engine behind the success of Dutch agriculture. The foundation of this rests on intra-sectoral trust, which might be less secured under the new circumstances. And as the saying goes: trust arrives on foot but leaves on horseback.

Coming back to the metaphors we introduced in 2006, we witness a disruptive change from the crystallizing to the dissolving scenario. We see the risk that agricultural education as a whole will be integrated in larger and broader comprehensive schools for secondary and vocational education. Wageningen University may run a lower risk on this, because of its unique position within the global agri-food sector. We hope that this dissolving scenario will not go at the cost of the key agricultural production, research, and innovation competence of the Netherlands, as that might not only have an impact on this tiny country, but also on the rest of the world.

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