



**Sustainability in the Curriculum at the
Royal Agricultural University:
Our Strategy for 2016-21; and
Update on Progress 2014-16**

June 2016 (minor updates August 2017)



RAU Mission Statement: “To be a centre of excellence for developing the leaders of tomorrow in sustainable development relating to the rural economy, built environment and food chain, and to provide leadership regionally, nationally and internationally through its education, research and knowledge exchange activities”

RAU Academic Strategy: “The RAU aspires that its graduates will be [amongst other things] committed to the principles of sustainability and advocates for sustainable development”

And how to do this.....

RAU Corporate Plan 2015-20: “The University... will ensure that sustainability is embedded throughout the curriculum across each of the schools of study”

Education for Sustainable Development at the Royal Agricultural University

Education for sustainable development (EfSD) is core to what the Royal Agricultural University (RAU) does. From our founding motto ‘caring for the fields and the beasts’ onto modern day teaching and learning, we have a long history of promoting sustainability. Our graduates go on to be future leaders in agriculture; business, real estate and land management, and we therefore have a great opportunity, and responsibility, to be at the forefront of sustainability in the rural sector, through our teaching and learning, and by being an exemplar through our own operations.

This is our second ‘Sustainability in the Curriculum’ Strategy, and builds on our first Strategy, as set out in our ‘RAU Environmental Action Plan 2014-16’. These Strategies set out our approach to ensuring that every one of the graduates leaving the RAU does so equipped with the knowledge, skills and attributes to make a positive contribution to working and living in a world where sustainability is increasingly important.

For us, therefore, EfSD comprises both teaching and learning *about* sustainable development (for example, about technical issues relating to climate change) and also teaching and learning *for* sustainable development (i.e. the skills and attributes required to deliver sustainable development – for example, the ability to work in partnership with others). It, therefore, links closely to the wider development of skills and attributes to enhance employability more generally, and therefore, not only the content of what is taught, but also how students learn, and the skills they develop whilst at the RAU.

This document reviews our progress in this area, as at 2016, as well as setting out our strategy for the period 2016-2021. For future progress against this strategy, see our annual ‘Review’ reports.

Defining Sustainable Development

The UN Brundtland Commission’s definition is the most commonly used:

“Development which meets the needs of current generations without compromising the ability of future generations to meet their own needs”

This is often translated into ensuring that economic, environmental and social considerations are equally weighted in decision making. It can also be looked at using other frameworks – such as the ‘Five Capitals Model’ which recognises that natural, social, and human, capital, as well as manufactured and financial capital, are critical in producing the goods and services needed to improve human life, and that any sustainable organization will be maintaining, or enhancing stocks of all of these assets.

Why Is Education for Sustainable Development Important to the RAU?

As a higher education institution with a focus on the rural sector, EfSD is particularly important to us for a range of reasons:

- Sustainability issues are especially significant to the food production system, natural, and built environments which will be integral to the future lives of our graduates – both in terms of their physical impacts on the environment, but also in the wider business and societal frameworks in which our graduates will work and live
- We pride ourselves at the RAU on high levels of graduate employability – and on our focus on equipping our students with the skills and knowledge to have successful working lives in sectors where sustainability literacy is increasingly important
- Student surveys (nationally and at the RAU) show that students expect sustainability to be part of their programmes
- The wider higher education framework has, over recent years, placed an increasing emphasis on sustainability – both in terms of the business operations of institutions, and also in relation to the teaching and learning within them. Whilst we have developed a distinctive RAU approach to EfSD in a way which we feel best serves our graduates and the wider community, this approach reflects external guidance and thinking, such as that within the 2014 Quality Assurance Agency (QAA) and Higher Education Academy (HEA)'s 'Education for Sustainable Development: Guidance for Higher Education Providers'.

Student Expectations:

Annual UK-wide surveys of students carried out by HEA/NUS since 2010 ('Student Attitudes Towards and Skills for Sustainable Development') have consistently reported that over two-thirds of students believe that sustainable development should be incorporated into all university courses.

A 2013 HEA-funded survey undertaken of final year, and postgraduate, land management students at the RAU showed that demand is even higher here – with 98% of the students considering it important that sustainability is incorporated into their courses.

The Higher Education Environment:

"Our work [the Higher Education Academy] aims to help higher education institutions in the development of sustainability literate graduates who have the skills, knowledge and experience to contribute to an environmentally and ethically responsible society."

Higher Education Academy preface to the QAA/HEA's 'Education for Sustainable Development: Guidance for UK Higher Education Providers' (June 2014).

Graduate Employability:

An HEA-funded project carried out within the RAU's School of Real Estate & Land Management in 2013 surveyed graduate employers of rural surveyors and found that, of the 22 participants responding (including representatives of all the major recruiters), 95% considered sustainability to be relevant to the role of a graduate rural surveyor, with 61% considering that sustainability knowledge and skills are either 'reasonably' or 'partially' significant as a deciding factor when recruiting rural surveying graduates.

‘The Sustainability Literate RAU Graduate’

Our approach to EfSD evolves from the principle that all of our graduates should be ‘sustainability literate’. We have therefore developed a ‘sustainability literate RAU graduate’ model through a series of workshops with academic staff from across the whole institution:

<i>Knowledge & Understanding</i>	<i>Skills</i>	<i>Attributes</i>
Has sufficient knowledge and understanding to be able to solve problems and translate sustainability principles into practical applications	Persuasive & able to negotiate	Moral and ethical
	Able to be creative, and think laterally if necessary	Open-minded and empathetic
	Able to communicate ideas with confidence in a way that is appropriate to the audience	Resilient, and able to deal with uncertainty, showing flexibility
	Able to form their own opinions and be confident in expressing them, taking a standpoint and leading where appropriate	Considerate of the environmental, economic and social impacts of all their actions
	Able to reflect on the consequences of decisions made – and their impacts from a social, environmental and economic perspective	Professional in their approach and committed to lifelong learning
	Able to research topics	
	Able to think critically	
	Able to take a long-term, systematic and holistic view	

“There is nothing unique about a ‘sustainability literate’ graduate as opposed to a ‘good graduate’.”
 – *comment by a member of RAU staff at RAU EfSD workshop.*

Supporting Our Graduates to Become Sustainability Literate

In supporting the sustainability literacy of all of our graduates we are taking a whole-institution approach. Rather than sustainability being confined to certain programmes, our approach (as set out in our Corporate Plan) is that sustainability, and EfSD principles are embedded throughout the curriculum across the whole institution and therefore that all of our graduates leave being sustainability literate and able to relate and apply sustainability approaches within their professional disciplines and future lives.

This therefore means focusing not only on *what* we are teaching, but also *how* we are teaching it. Many EfSD teaching and learning principles (for example, problem-based learning, experiential project work and case studies) are already commonly in use at the RAU, and therefore our approach involves sharing existing good practice, as well as developing new ideas.

We also have a long tradition of using our farms and property within our teaching and learning, and utilising the RAU campus and farms as a ‘living sustainability laboratory’ is also core to our EfSD strategy.

We Said....We Did....We Are Doing....

Our 'RAU Environmental Action Plan 2014-16' set out a number of things that we were going to do support the sustainability literacy of our graduates and embed sustainability throughout curriculum of all of the schools of the RAU. Progress against each of the specific targets in the Action Plan is set out in at Annex 1 and the boxes below set out some of the key things we have done during this period, and are continuing to do.

Embedding Sustainability in the Curriculum of All of Our Programmes Through Validation

We have adopted an institution-wide approach to embedding sustainability into the curriculum of all of our programmes through incorporating it into our validation process. From spring 2016 onwards **all of our new and existing programmes going through validation / re-validation are required to demonstrate how they support the sustainability literacy of their graduates.** This is an important step in our journey to ensure that *all* of our graduates are sustainability literate. This follows a review we undertook in 2012 which found that 14% of the RAU's module descriptors included the word 'sustainability' or 'sustainable'. Whilst we recognised at the time that by focusing on these two words we were probably underestimating existing sustainability-related teaching and learning, it indicated that whilst there was already a significant amount happening, there were also pockets where much less was occurring. We have therefore adopted an institution wide-approach to this (accompanied by a staff development programme focused on sharing and developing good practice). As new and existing programmes go through the five year validation cycle EfSD principles will be embedded into each of them and by 2021, all programmes will formally incorporate a focus on supporting their graduates' sustainability literacy.

Staff Development

EfSD forms a running theme within our **academic staff development programme**. It is incorporated into our **academic staff induction process**, and sessions on EfSD regularly feature within our annual **academic staff development conference** and within our year-round **lunchtime staff development series** (all academic staff are encouraged to attend these sessions, with just over 40% of academic staff attending the academic staff development conference workshops where we collaboratively developed the 'sustainability literate RAU graduate' model). We also have a network of '**sustainability in the curriculum champions**' within the schools of the RAU who provide support to staff involved in validations / re-validations, or who want to develop their practice within this area. An **RAU-specific EfSD toolkit** has also been written and is available to all staff and students via our intranet, and virtual learning environment, This comprises a short 'introduction to' guide, and a longer guide which includes more detailed examples of teaching approaches, as well as pointers to further guidance, including that published by QAA / HEA.

The RAU as a Living Laboratory

We have long been using our farms and property as a teaching, learning and research resource – for example, for students assessing the impacts on biodiversity of differing farm management approaches, or evaluating the ways in which agri-environment measures can be integrated successfully into farming businesses. We have now built on this in several ways. We have developed an '**Environmental Project Bank**' of RAU-based projects which students can use for dissertations. As well as being allocated an academic supervisor, students doing these projects liaise with the RAU's Environmental Officer who can provide them with access to RAU data and through this, students can make a positive difference to the RAU's environmental management as well as completing their dissertation. The Project Bank was trialled in 2015-16 with the first undergraduate completing a project based on improving recycling in our student residences and the Bank is now being rolled out to students across the whole RAU. We have also developed a '**Green RAU**' section on our virtual learning environment which is accessible to all students and staff and is now being used as a teaching and learning resource. It holds 'live' information on our operational environmental management, including details of our biomass system, and many of our ISO 14001 Environmental Management System documents.

Sharing Good Practice

As noted above, there is already much established good practice in this area at the RAU, and one of the core **objectives of our staff development activities and workshops is to give staff an opportunity to share ideas and good practice** (through mechanisms such as liquid café activities). For example, in the 2015-16 academic year, we ran 'sharing good EfSD practice and ideas' sessions, during our Annual Academic Staff Development Conference and at two of our lunchtime series events. We, as an institution also aim to reach out externally. We are active members of the **United Nations University Regional Centre of Expertise on Education for Sustainable Development Severn Region** (with representation on its steering group), and we are also actively engaged in the **Environmental Association of Universities and Colleges** (with our Environmental Officer being the convenor for the south-west region).

Monitoring Impact

We have developed a system to **monitor the impact of our EfSD activities on our students** which is structured around monitoring students' choice of dissertation subject. We have also started collecting annual data on library borrowings which relate to sustainability. Reviews in 2014 and 2016 of dissertations in the library (those achieving high marks) found well in excess of 100 investigating directly sustainability-related subjects. We also undertook a survey of final year and postgraduate land management students as part of a HEA/ RAU project in 2013 which found that 98% of the RAU land management students participating (n=55) thought it important their courses incorporated sustainability. Given the wide spectrum of EfSD activities and impacts, as well as the close links to other RAU activities supporting graduate employability (for example, our enterprise and entrepreneurship support) isolating, and quantitatively monitoring, the direct impact of EfSD activities on students does present challenges. Therefore, we are continuing to work on developing the robustness of our EfSD monitoring systems, and this is one of our key future action points.

As noted above, all of our programmes being validated / revalidated are now required to demonstrate how they support the development of graduates' sustainability literacy. We are currently in the first year of this, and plan to **review how programme teams are approaching this at the end of the first year, and annually in subsequent years**, in order to inform future staff development and share good practice.

Our Strategic Approach & Reporting Structure

Our approach to EfSD is an institution-wide one. Our clear commitment to embedding sustainability in the curriculum throughout the institution is stated within our **Corporate Plan**, and is now embedded firmly within our quality assurance processes through its **incorporation within our validation system**. We have an **Institutional Lead for Sustainability in the Curriculum** who oversees our strategic work in this area, working closely with the team of '**Sustainability in the Curriculum Champions**'. Our Institutional Lead sits on our **Education Committee, Curriculum Review Group and Academic Board**. **Student engagement** with our strategy and progress is facilitated through these committees which have student representatives.

We also have a clear commitment to linking our academic and operational activities. Our Institutional Lead is also Vice Chair of our **Environmental Sustainability Advisory Group** whose role is to monitor, and advise the institution on, its strategy and operations in relation to sustainability generally. The Institutional Lead is also part of our **Environmental Management System (EMS)** implementation team and our EfSD targets are incorporated within our EMS.

Progress and in relation to our EfSD strategy and targets is **reported** through a number of mechanisms including at our Education Committee and Academic Board, and through our EMS, is reported to our Environmental Strategy Advisory Group, comprising members of our senior management team and reporting to Governing Council.

Where Now? ... Our Targets and Actions for 2016-2021

The next five years will see further embedding of EfSD within the RAU. Through incorporating EfSD into our validation process we have set in train a process which will, by 2021, ensure that all of our programmes incorporate EfSD principles and contribute to ensuring that all our graduates are 'sustainability literate', thereby, meeting our Corporate Plan objective.

Because our validation cycle operates on a five year basis, our EfSD strategy is also structured around this timeframe.

Our strategy is underpinned by a number of principles (which, in the main represent a continuation of the principles we have followed to date):

- As a very small higher education institution it is important that we integrate this agenda into our existing structures, and the flexibility to do this is arguably a real strength of our small size as it represents a real opportunity to fully 'embed' EfSD. We have established a system where EfSD is now fully integrated into our quality assurance systems and staff development structures and will continue to follow this 'integrative' approach in the next five years.
- In order to properly embed EfSD across the whole institution, all staff need to engage with it. Therefore, as has been the case to date, all EfSD staff development activities (for both those new to the RAU, and existing staff) will be open to all academic staff, and EfSD activities will be fully integrated into our existing academic staff development programmes.
- Given that the RAU already has significant expertise and experience of EfSD within its staff, continuing to share existing good practice will remain an important objective of our staff development and support systems. Our staff development activities will therefore continue to recognize that, whilst this is a more unfamiliar area for some academics (both existing and new), other staff may be more experienced and their focus will be on continual improvement of their existing good practice.
- Our approach to EfSD recognizes that whilst important to develop an institution wide-framework it has to be flexible enough to recognise that EfSD will apply differently in different subject areas and academics have to 'own' its application to their own programmes.
- We will continue to engage with good practice externally, as well as internally, and will take further opportunities to develop external networks within this area as they arise.
- We will continue to link our EfSD curriculum work with the RAU's wider environmental work both on our campus and farms – the RAU as a 'living lab'.
- We will continue to ensure that the 'student voice' is heard within our approach to EfSD – both through representation at a strategic committee level within the development of our future policy, and the monitoring of its delivery, but also through other mechanisms such as 'living lab' projects. We will continue to develop our engagement with the Student Union as well as our links to other areas such as our enterprise and entrepreneurship schemes.
- We will continue to monitor both the ways in which staff are responding to the EfSD agenda (through validations and take-up of professional development opportunities), as well as the impact on students (where we will continue refine, as necessary, our system of monitoring).

Our 'EfSD Strategy Principles' translate into a number of updated targets and actions for the period 2016-2021, which continue to be underpinned by our overarching objective of 'embedding sustainability throughout the curriculum across the schools of study', as set out in our Corporate Plan.

RAU Education for Sustainable Development Targets and Actions (2016-2021)

Objective: To embed sustainability throughout the curriculum across each of the schools of study

Targets:

- All RAU programmes to support the development of sustainability literate graduates by 2021.
- Encourage, support and provide opportunities for all academic staff to engage with, and develop their practice, in Education for Sustainable Development (EfSD) over the five year period to 2021.
- Continue to review and enhance our existing system of monitoring the impact of the RAU's EfSD activities on students, further testing our baseline data, and establishing, by 2019, a numerical target for increased student impact based on baseline data collected over the previous five years.
- Continue to encourage student engagement with our operational environmental management by maintaining our 'Green RAU' pages on the virtual learning environment, and supporting at least three RAU students per annum to do dissertation projects from the RAU 'Environmental Project Bank'.

Actions:

- We will continue to ensure that all RAU programmes being validated and/or revalidated demonstrate how they are supporting the development of sustainability literate graduates, as appropriate to their subject. By the end of the five year validation cycle to 2021 all programmes will therefore demonstrate this.
- We will monitor, annually, how programme teams have approached the incorporation of sustainability literacy into their programmes at validations / re-validations and will use this to share good practice, and inform future staff development.
- We will continue to ensure that our RAU Academic Staff Development Programme incorporates EfSD, and will run at least two 'sharing and developing good practice' workshops on EfSD per annum over the five year period which will be open and advertised to all academic staff. We will also monitor staff engagement with these events.
- We will continue to engage with external networks to share good practice, for example, EAUC and UNU RCE Severn.
- We will improve, by the end of 2016, the signposting to our EfSD support materials within our academic staff induction system.
- We will continue to maintain our 'Green RAU' pages on the virtual learning environment with up to date information about our environmental performance, and will support at least three RAU students per annum to do dissertation projects from the RAU 'Environmental Project Bank'.
- We will continue to collect data on students' dissertation choices and library borrowings on a biennial basis in order to monitor the impacts of our EfSD activities, and will also investigate, during the academic year 2016-17, other methods of assessing impact, for example, through student survey data. By 2019, having collected baseline data for five years, we will set a numerical target for future quantitative increases in student impact.

Want To Find Out More?

If you would like to learn more about our work in this area please contact our **Institutional Lead for Sustainability in the Curriculum**, Katharine Foot (katharine.foot@rau.ac.uk), or our **Environmental Officer**, Pearl Costello (pearl.costello@rau.ac.uk).

Annex 1: Progress Against the RAU Environmental Action Plan 2014-16

Objective: To embed sustainability throughout the curriculum across each of the schools of study

Targets:

- Include Education for Sustainable Development (EfSD) principles within the induction and mentoring programme for all new academic staff by January 2015
 - *Completed – although aim to improve signposting to new RAU EfSD guidance/support network for next academic year.*
- Develop a methodology for incorporating the consideration of Education for Sustainable Development principles within programme validations/re-validations by January 2015, including support for staff on embedding Education for Sustainable Development principles within the curriculum.
 - *Completed – methodology developed and now incorporated within validation protocols and now being used. RAU EfSD toolkit now available on intranet and virtual learning environment. Network of staff EfSD champions developed to support academic staff developing and validating programmes.*
- Ensure that Education for Sustainable Development is considered within all programme validations/re-validations from the academic year 2015-16 onwards
 - *Completed – all programmes required, from spring 2016, onwards, to demonstrate, at validation / re-validation, how they are supporting their graduates' 'sustainability literacy'*
- Develop a methodology for measuring the impact of the embedding of Education for Sustainable Development principles across the curriculum on student awareness of sustainability issues by July 2015
 - *Completed – system developed and data being collected on students' choices of dissertations, and library borrowings relating to sustainability. Ongoing assessment of reliability of data, and of potential opportunities to improve robustness of system.*

Actions:

- We will develop an Education for Sustainable Development toolkit to support academic staff in mentoring new academic colleagues, and in curriculum development/review.
 - *Completed – see above.*
- We will develop a methodology which enables Education for Sustainable Development principles to be considered in an appropriate way for each of the programmes within the RAU at the point of validation/re-validation and will introduce this to the validation/re-validation process by 2015-16, thereby ensuring that sustainability is embedded within all programmes at the RAU by the academic year 2020-21 (i.e. over the normal five year re-validation cycle).
 - *Completed – see above*
- We will develop a methodology for measuring the impact of embedding Education for Sustainable Development principles across the curriculum on student awareness of sustainability issues, initially through monitoring students' choice of dissertation subjects, and the use of library resources relating to sustainability.
 - *Completed – see above. Approach to be reviewed, and where appropriate, refined, over next five years.*