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Required

Recommended Reporting: Reporting on Wider Influence

PART 1: PROFILE OF REPORTING BODY

1(a) Name of reporting body
The James Hutton Institute

1(b) Type of body
Others

1(c) Highest number of full-time equivalent staff in the body during the report year
560

1(d) Metrics used by the body			
Specify the metrics that the body uses to assess its performance in relation to climate change and sustainability.			
Metric	**Unit**	**Value**	**Comments**

1(e) Overall budget of the body	
Specify approximate £/annum for the report year.	
Budget	**Budget Comments**
39045	

1(f) Report year	
Specify the report year.	
Report Year	**Report Year Comments**
Financial (April to March)	

1(g) Context
Provide a summary of the body's nature and functions that are relevant to climate change reporting.
The James Hutton Institute is a world-leading research centre for the sustainable management of land, crops and natural resources to support thriving communities. We are one of the major research providers for the Scottish Government's Rural and Environmental Science and Analytical Services (RESAS) strategic research programme. As such, we are a key provider of evidence and innovation for climate change mitigation and adaptation both in Scotland and across the world. We have two main campuses, one in Dundee and one in Aberdeen as well as several research farms: Hartwood Home Farm in Lanarkshire, Glensaugh Research Station in South Aberdeenshire and also Mylnefield and Balruddery Farms, adjacent to our Dundee research site. Our major greenhouse gas emissions sources are similar to other public bodies, i.e. natural gas for heating and electricity use (see section 3). However, two aspects set us apart from other organisations: frequent national and international travel by our research staff and the emissions associated with our farms. Our major climate change risks concern our farms and other research facilities. By making agricultural conditions more extreme and by threatening our infrastructure, climate change could affect our ability to conduct systematic research to provide needed evidence to decision-makers across Scotland. However, this is something we are actively addressing (see section 4).

PART 2: GOVERNANCE, MANAGEMENT AND STRATEGY

2(a) How is climate change governed in the body?
Provide a summary of the roles performed by the body's governance bodies and members in relation to climate change. If any of the body's activities in relation to climate change sit outside its own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify these activities and the governance arrangements.

During the reporting year (April 2015 to March 2016), the following bodies had responsibilities relevant to the climate change duties:

The Board of Directors
Oversee the work of the Institute, and receive regular reports on the Institute's performance. Prof James Curran, ex-CEO of SEPA, is the Board's sustainability champion.
*Challenge the Executive on how the Institute is responding to Climate Change and provide guidance.

The CEO and Executive Team
The Executive team are responsible for strategy development and the leadership and management of the organisation.
*Budget allocation; key decision-making; long-term planning; Overall accountability

The HSQE department
The Health, Safety, Quality and Environment department coordinates the Institute's Health and Safety, Quality Assurance and Environmental Management Systems.
*Compliance; Reporting; Risk Management

The Estates department
The remit of the Estates team is to maintain the buildings on all sites and provide services to FCS (Finance and Corporate Services) and Science teams to meet their technical services requirements.
*Heating; Lighting; Institute car fleet; Waste

The Field, Farm & Glasshouse Services department
The Farms, Field and Glasshouse team provide relevant services to scientists and researchers in relation to their specific requirements for growing plants and conducting field and glasshouse experiments.
*Land management; Adaptation; Agri-renewables

Environmental Review Committee
The Environmental Review Committee brings together staff from science and FCS departments to focus on environmental issues. The committee meets three times annually, contributes to the development of Institute policies and decision-making and is chaired by a member of the Executive.
*Environmental policy development; Staff feedback and engagement;

The relationships between these roles are illustrated in the attached diagram.

2(b) How is climate change action managed and embedded by the body?
Provide a summary of how decision-making in relation to climate change action by the body is managed and how responsibility is allocated to the body's senior staff, departmental heads etc. If any such decision-making sits outside the body's own governance arrangements (in relation to, for example, land use, adaptation, transport, business travel, waste, information and communication technology, procurement or behaviour change), identify how this is managed and how responsibility is allocated outside the body (JPEG, PNG, PDF, DOC)

The James Hutton Institute received a letter from Aileen McLeod BPA/MSP, Minister for Environment, Climate Change and Land Reform, on the29th of June, 2015, announcing the Scottish Government's intention to introduce mandatory reporting on Public Bodies' Duties under the Climate Change (Scotland) Act 2009.

The Hutton had not been one of the bodies that voluntarily committed to Scotland's Climate Change Declaration, nor one of those who published Public Sector Sustainability Reports as it is not an NDPB. In addition, the complex merger of two pre-existing research institutes in 2011 required the harmonisation of many existing reporting and accounting processes and meanwhile made it difficult to keep up with best practice.

This required the Hutton to develop reporting procedures from scratch. A project team under the oversight of the CEO, with representation from HSQE, Estates, Finance and the science groups as well as Farms, Fields and Glasshouses, completed the first report and submitted it by the end of November 2015.

At the Environmental Review Committee meeting in December 2015, it was agreed that climate change reporting and the climate management (targets, projects, policies) that it implied, warranted the creation of a new staff role. By the end of the reporting period (March 2016), the details of this role were being agreed and the recruitment process was being set in motion.

The information above is provided to show that climate change action is a new area of responsibility for the Institute and that most of the reporting year (15/16) was spent developing our approach. This was eventually crystallised in August 2016, with the internal recruitment of an existing member of staff to the post of "Sustainability Co-ordinator".

Details on the new management structure for climate change will be included in the 16/17 report.

2(c) Does the body have specific climate change mitigation and adaptation objectives in its corporate plan or similar document?		
Provide a brief summary of objectives if they exist.		
Objective	**Doc Name**	**Doc Link**

2(d) Does the body have a climate change plan or strategy?
If yes, provide the name of any such document and details of where a copy of the document may be obtained or accessed.
Not in the reporting period. A new corporate plan for 2016-2021 was adopted in May 2016 and includes some specific objectives on climate change. This will be covered in the 16/17 report.

2(e) Does the body have any plans or strategies covering the following areas that include climate change?				
Provide the name of any such document and the timeframe covered.				
Topic area	**Name of document**	**Link**	**Time period covered**	**Comments**
Adaptation				
Business travel	Travel Plan	no public link	2015 onwards	approved but not implemented yet
Staff Travel	Travel Plan	no public link		approved but not implemented yet
Energy efficiency				
Fleet transport	Travel Plan	no public link		approved but not implemented yet
Information and communication technology				The IT strategy will be reviewed to address climate change and sustainability.
Renewable energy	Agri-Renewables Strategy	no public link	2015 onwards	
Sustainable/renewable heat	Agri-Renewables Strategy	no public link	2015 onwards	
Waste management				
Water and sewerage				
Land Use				
Other (state topic area covered in comments)				

2(f) What are the body's top 5 priorities for climate change governance, management and strategy for the year ahead?
Provide a brief summary of the body's areas and activities of focus for the year ahead.
[For the financial year 16/17] 1. Recruit a sustainability co-ordinator 2. Submit the 15/16 public bodies climate change duties report to the best of our ability in the time available, identifying areas that will need further development in the future. 3. Agree an annual timeline for compiling future reports and making them publicly available. 4. Develop projects to reduce our greenhouse gas emissions and put in place appropriate monitoring systems to capture their impact (see section 3). 5. Carry out a climate change risk assessment (see section 4) and act on it.

2(g) Has the body used the Climate Change Assessment Tool(a) or equivalent tool to self-assess its capability / performance?
If yes, please provide details of the key findings and resultant action taken.
The tool was run in October 2015 and included in the last report (on FY14/15). The results at that time were: Governance (36%) Emissions (7%) Adaptation (0%) Behaviour (20%) Procurement (13%) We believe we have made some progress in most areas since then. We will run the tool again, in a workshop setting, in the FY 16/17 and include the results in our next report.

2(h) Supporting information and best practice
Provide any other relevant supporting information and any examples of best practice by the body in relation to governance, management and strategy.
Nothing to add.

PART 3: EMISSIONS, TARGETS AND PROJECTS

3a Emissions from start of the year which the body uses as a baseline (for its carbon footprint) to the end of the report year

Complete the following table using the greenhouse gas emissions total for the body calculated on the same basis as for its annual carbon footprint /management reporting or, where applicable, its sustainability reporting. Include greenhouse gas emissions from the body's estate and operations (a) (measured and reported in accordance with Scopes 1 & 2 and, to the extent applicable, selected Scope 3 of the Greenhouse Gas Protocol (b)). If data is not available for any year from the start of the year which is used as a baseline to the end of the report year, provide an explanation in the comments column.
(a) No information is required on the effect of the body on emissions which are not from its estate and operations.

Reference Year	Year	Scope1	Scope2	Scope3	Total	Units	Comments
Baseline carbon footprint	2014/15	1539	3795	332	5666	tCO2e	Note that the figures we submitted in our previous report for 14/15 were inaccurate. The figures presented here have been re-calculated from the 14/15 data using the same method as for 15/16.
Year 1 carbon footprint	2015/16	1684	3387	280	5351	tCO2e	

3b Breakdown of emission sources

Complete the following table with the breakdown of emission sources from the body's most recent carbon footprint (greenhouse gas inventory); this should correspond to the last entry in the table in 3 (a) above. Use the 'Comments' column to explain what is included within each category of emission source entered in the first column. If, for any such category of emission source, it is not possible to provide a simple emission factor(a) leave the field for the emission factor blank and provide the total emissions for that category of emission source in the 'Emissions' column.

Total	Comments – reason for difference between Q3a & 3b.	Emission source	Scope	Consumption data	Units	Emission factor	Units	Emissions (tCO2e)	Comments
5350.7		Grid Electricity (generation)	Scope 2	7327323	kWh	0.46219	kg CO2e/kWh	3386.6	Note that this does not include electricity generated and used on site
		Grid Electricity (transmission & distribution losses)	Scope 3	7327323	kWh	0.03816	kg CO2e/kWh	279.6	ditto
		Natural Gas	Scope 1	9132792	kWh	0.18445	kg CO2e/kWh	1684.5	Note that this includes the gas burned in our combined heat and power plant

3c Generation, consumption and export of renewable energy

Provide a summary of the body's annual renewable generation (if any), and whether it is used or exported by the body.

	Renewable Electricity		Renewable Heat		
Technology	**Total consumed by the organisation (kWh)**	**Total exported (kWh)**	**Total consumed by the organisation (kWh)**	**Total exported (kWh)**	**Comments**
Solar PV	25184	0			Glensaugh PV
Solar PV	10952	0			Invergowrie PV

3d Targets

List all of the body's targets of relevance to its climate change duties. Where applicable, overall carbon targets and any separate land use, energy efficiency, waste, water, information and communication technology, transport, travel and heat targets should be included.

Name of Target	Type of Target	Target	Units	Boundary/scope of Target	Progress against target	Year used as baseline	Baseline figure	Units of baseline	Target completion year	Comments
										No targets set in the report year

3e Estimated total annual carbon savings from all projects implemented by the body in the report year			
Total	**Emissions Source**	**Total estimated annual carbon savings (tCO2e)**	**Comments**
2	Electricity	0	Our operations teams make continuous improvements to the estate (e.g. lighting, IT equipment) that are gradually reducing our electricity use over time. We will develop a way to capture this in future reports.
	Natural gas	0	
	Other heating fuels		n/a
	Waste		Not currently included in our carbon footprint. The data is available and we aim to include it in our next report.
	Water and sewerage		Not currently included in our carbon footprint. The data is available and we aim to include it in our next report.
	Business Travel		Not currently included in our carbon footprint. We aspire to include this in our next report, but the data is dispersed across multiple sources and will be difficult to compile.
	Fleet transport	2	1 project in the report year, see below. Not currently included in our carbon footprint. The data is available and we aim to include it in our next report.
	Other (specify in comments)		

3f Detail the top 10 carbon reduction projects to be carried out by the body in the report year

Provide details of the 10 projects which are estimated to achieve the highest carbon savings during report year.

Project name	Funding source	First full year of CO2e savings	Are these savings figures estimated or actual?	Capital cost (£)	Operational cost (£/annum)	Project lifetime (years)	Primary fuel/emission source saved	Estimated carbon savings per year (tCO2e/annum)	Estimated costs savings (£/annum)	Behaviour Change	Comments
Caretaker van replacement	Internal	2016	Estimated	0	3018.72	3	Van - Class I (up to 1.305 tonnes) Petrol	2	1159	No behaviour change aspects.	3-year lease on a Nissan e-NV200 Accenta

3g Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the report year				
If the emissions increased or decreased due to any such factor in the report year, provide an estimate of the amount and direction.				
Total	**Emissions source**	**Total estimated annual emissions (tCO2e)**	**Increase or decrease in emissions**	**Comments**
-277	Estate changes			
	Service provision			
	Staff numbers			
	Other (specify in comments)	272	Decrease	Electricity emissions factor: The greenhouse gas emissions factor for generating electricity has fallen from 0.494kg/kWh to 0.462kg/kWh. Likewise, the emissions factor for transmission has fallen from 0.043kg/kWh to 0.038kg/kWh. Thus, even if our consumption had stayed the same, our electricity-related emissions would have fallen by almost 7%. However, we also saw a 5% drop in electricity consumption year-on-year, bringing the overall decrease to 11%. The reasons for this significant drop are not known.
	Other (specify in comments)	5	Decrease	Natural gas emissions factor: A slight reduction in the natural gas emissions factor has meant that a 9.7% increase in natural gas consumption only led to a 9.4% increase in emissions.
	Other (specify in comments)	0	Increase	Weather: The financial year 15/16 was 2% colder in Dundee and 8% colder in Aberdeen (see weather data below). This partially explains the increase in natural gas related emissions. The residual change is unexplained. Weather data: Dundee FY14/15: 2175 degree-days Dundee FY15/16: 2222 degree-days (2% increase) Aberdeen FY14/15: 2407 degree-days Aberdeen FY15/16: 2612 degree-days (8% increase) All data from www.degreedays.net, using weather station IDUNDEE2 for Dundee and EGPD for Aberdeen. A higher number means more heating is needed to maintain the base temperature that year. We used a base temperature of 15.5 °C.

3h Anticipated annual carbon savings from all projects implemented by the body in the year ahead			
Total	**Source**	**Saving**	**Comments**
2	Electricity	1	A set of solar panels installed in March 2016 will reduce our grid electricity consumption. A staff engagement programme will promote energy-efficient behaviours. It will also identify possible changes in research procedures that would result in electricity savings. A renewable energy options appraisal will consider business cases for producing low-carbon electricity on-site.
	Natural gas	1	A staff engagement programme will promote energy-efficient behaviours. It will also identify possible changes in research procedures that would result in electricity savings. A review of the two main sites will be carried out with Estates to identify measures to reduce heat loss. A renewable energy options appraisal will consider business cases for producing low-carbon heat on-site.
	Other heating fuels		n/a
	Waste		Not currently included in our carbon footprint. The data is available and we aim to include it in our next report.
	Water and sewerage		Not currently included in our carbon footprint. The data is available and we aim to include it in our next report.
	Business Travel		Unknown; A review of the Institute's Travel Plan – approved but not yet implemented – will highlight opportunities for reducing emissions for our business travel. For example, switching to an all-electric taxi company as the default option for the Invergowrie site.
	Fleet transport		Unknown; The Institute's vehicle fleet will be reviewed in FY '16/'17 and carbon emissions will form a key consideration of that review.
	Other (specify in comments)		

3i Estimated decrease or increase in the body's emissions attributed to factors (not reported elsewhere in this form) in the year ahead				
If the emissions are likely to increase or decrease due to any such factor in the year ahead, provide an estimate of the amount and direction.				
Total	**Emissions source**	**Total estimated annual emissions (tCO2e)**	**Increase or decrease in emissions**	**Comments**
-183	Estate changes			No large changes anticipated in FY16/17.
	Service provision			No large changes anticipated in FY16/17.
	Staff numbers			No large changes anticipated in FY16/17.
	Other (specify in comments)	183	Decrease	Continued decarbonisation of the grid will probably reduce our emissions factors, yielding "apparent" reductions. If these are similar to last year they will be on the order of 5%.

3j Total carbon reduction project savings since the start of the year which the body uses as a baseline for its carbon footprint	
If the body has data available, estimate the total emissions savings made from projects since the start of that year ("the baseline year").	
Total	**Comments**
	not available.

3k Supporting information and best practice
Provide any other relevant supporting information and any examples of best practice by the body in relation to its emissions, targets and projects.

PART 4: ADAPTATION

4(a) Has the body assessed current and future climate-related risks?

If yes, provide a reference or link to any such risk assessment(s).

Not yet. We will carry out our first climate change impact risk assessment in FY '16/17.

However, researchers at the James Hutton Institute have been instrumental to a range of projects assessing the risks posed by climate change to Scotland as a whole. See descriptions below.

4(b) What arrangements does the body have in place to manage climate-related risks?

Provide details of any climate change adaptation strategies, action plans and risk management procedures, and any climate change adaptation policies which apply across the body.

As of the end of the reporting period (March 2016), climate-related risks would only have come to the attention of the Institute's management structure insofar as they directly affected our ongoing operations. Incidents such as storm or flood damage or droughts would be dealt with by the Estates team or the Farms, Fields and Glasshouses department.

4(c) What action has the body taken to adapt to climate change?

Include details of work to increase awareness of the need to adapt to climate change and build the capacity of staff and stakeholders to assess risk and implement action.

While we do not (yet) have an institute-wide strategic approach to adapting to climate change, our farms are participants in the "Farming for a Better Climate" programme (http://www.sruc.ac.uk/farmingforabetterclimate). Balruddery Farm in Invergowrie and Glensaugh Research Farm near Laurencekirk are both case studies for the programme.

At Balruddery Farm (and Mylnefield Farm which is adjacent), we have implemented:
- "Tied ridges" in potato fields, to keep water on the field and reduce run-off. This prevents erosion and reduces the pollution caused by heavy rainfall.
- Similarly, our farm managers have developed a new way to form field margins (called "Magic Margins"). The textured surface slows field run-off, reducing erosion and preventing potential pollution caused by heavy rain fall.
- Mixed hedgerow planting and tree lines will mitigate the impact of strong winds, acting as natural wind breaks to protect our polytunnel structures.
- Drilling commercial crops by contour drilling across sloping fields encourages infiltration and reduces the impact of heavy rains.

At Glensaugh Research Farm, we have implemented:
- Woodland planting to replace shelterbelts that were felled during World War I.
- Replacing suckler cows with sheep and replacing low-ground sheep breeds with hill breeds to reduce the farm's reliance on conserved winter feed.

More information on Balruddery and Glensaugh's efforts to adapt to a changing climate can be found at the following links:
http://www.sruc.ac.uk/download/downloads/id/2762/balruddery_-_adapting_to_a_changing_climate
http://www.sruc.ac.uk/download/downloads/id/2754/glensaugh_research_station_-_adapting_to_a_changing_climate

4(d) Where applicable, what progress has the body made in delivering the policies and proposals referenced N1, N2, N3, B1, B2, B3, S1, S2 and S3 in the Scottish Climate Change Adaptation Programme(a) ("the Programme")?					
If the body is listed in the Programme as a body responsible for the delivery of one or more policies and proposals under the objectives N1, N2, N3, B1,B2, B3, S1, S2 and S3, provide details of the progress made by the body in delivering each policy or proposal in the report year. If it is not responsible for delivering any policy or proposal under a particular objective enter "N/A" in the 'Delivery progress made' column for that objective. (a) This refers to the programme for adaptation to climate change laid before the Scottish Parliament under section 53(2) of the Climate Change (Scotland) Act 2009 (asp 12) which currently has effect. The most recent one is entitled "Climate Ready Scotland: Scottish Climate Change Adaptation Programme" dated May 2014.					
Objective	**Objective reference**	**Theme**	**Policy / Proposal reference**	**Delivery progress made**	**Comments**
Understand the effects of climate change and their impacts on the natural environment.	N1	Natural Environment	N1-11		The James Hutton Institute was a Major Research Provider for the Scottish Government's Strategic Research Programme on Rural Affairs and the Environment (2011-16). This included research both in the main programme of work and within the umbrella of ClimateXChange and CREW, the centres of expertise on climate and water respectively. (See Question 4h for more information).
Support a healthy and diverse natural environment with capacity to adapt.	N2	Natural Environment			
Sustain and enhance the benefits, goods and services that the natural environment provides.	N3	Natural Environment			
Understand the effects of climate change and their impacts on buildings and infrastructure networks.	B1	Buildings and infrastructure networks			The James Hutton Institute was a Major Research Provider for the Scottish Government's Strategic Research Programme on Rural Affairs and the Environment (2011-16). This included research both in the main programme of work and within the umbrella of ClimateXChange and CREW, the centres of expertise on climate and water respectively. (See Question 4h for more information).

4(d) Where applicable, what progress has the body made in delivering the policies and proposals referenced N1, N2, N3, B1, B2, B3, S1, S2 and S3 in the Scottish Climate Change Adaptation Programme(a) ("the Programme")?					
If the body is listed in the Programme as a body responsible for the delivery of one or more policies and proposals under the objectives N1, N2, N3, B1,B2, B3, S1, S2 and S3, provide details of the progress made by the body in delivering each policy or proposal in the report year. If it is not responsible for delivering any policy or proposal under a particular objective enter "N/A" in the 'Delivery progress made' column for that objective. (a) This refers to the programme for adaptation to climate change laid before the Scottish Parliament under section 53(2) of the Climate Change (Scotland) Act 2009 (asp 12) which currently has effect. The most recent one is entitled "Climate Ready Scotland: Scottish Climate Change Adaptation Programme" dated May 2014.					
Objective	**Objective reference**	**Theme**	**Policy / Proposal reference**	**Delivery progress made**	**Comments**
Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure.	B2	Buildings and infrastructure networks			
Increase the resilience of buildings and infrastructure networks to sustain and enhance the benefits and services provided.	B3	Buildings and infrastructure networks			
Understand the effects of climate change and their impacts on people, homes and communities.	S1	Society			The James Hutton Institute was a Major Research Provider for the Scottish Government's Strategic Research Programme on Rural Affairs and the Environment (2011-16). This included research both in the main programme of work and within the umbrella of ClimateXChange and CREW, the centres of expertise on climate and water respectively. (See Question 4h for more information).
Increase the awareness of the impacts of climate change to enable people to adapt to future extreme weather events.	S2	Society			
Support our health services and emergency responders to enable them to respond effectively to the increased pressures associated with a changing climate.	S3	Society			

4(e) What arrangements does the body have in place to review current and future climate risks?

Provide details of arrangements to review current and future climate risks, for example, what timescales are in place to review the climate change risk assessments referred to in Question 4(a) and adaptation strategies, action plans, procedures and policies in Question 4(b).

As we develop our climate change risk assessment over the financial year 16-17, we will include a timescale to review the risks it covers.

4(f) What arrangements does the body have in place to monitor and evaluate the impact of the adaptation actions?

Please provide details of monitoring and evaluation criteria and adaptation indicators used to assess the effectiveness of actions detailed under Question 4(c) and Question 4(d).

The James Hutton Institute does not have a structured programme for evaluating the adaptation actions listed in 4c and 4d.

The actions taken on the farms are monitored by the farm managers themselves.

The research projects undertaken are subject to their own monitoring and evaluation, usually as part of the funding contract.

4(g) What are the body's top 5 priorities for the year ahead in relation to climate change adaptation?

Provide a summary of the areas and activities of focus for the year ahead.

1. Conduct a climate change risk assessment, involving the Estates department, the Farms, Fields and Glasshouses department, the Farm managers, and the wider management team to identify as many relevant risks as possible.
2. Develop a plan of action to address the risks identified above.
3. Review and publicise the adaptation work that is already ongoing on the Institute's estate.
4. Review and publicise the work the Institute is doing to contribute to the SCCAP.

4(h) Supporting information and best practice

Provide any other relevant supporting information and any examples of best practice by the body in relation to adaptation.

Our research work is mainly included in the Scottish Climate Change Adaptation Programme as the very broad objective N1-11. However, there are more references to ClimateXChange, CREW and research work in Objectives N1, B1, S1 and elsewhere throughout the SCCAP.

Of particular relevance is the CXC work involving researchers at the Hutton to develop many of the climate change adaptation indicators for Scotland. This work was recently used by the Adaptation Sub-committee in their SCCAP progress report.

Through CREW, the James Hutton Institute provided relevant evidence to SEPA on the"potential impacts of climate and land use change on the delivery of ecosystem services in relation to Scotland's water environment".

More generally, our research on the 2011-2016 strategic research programme directly addressed many of the climate risks listed on pp. 109-110 of the SCCAP:
• Changes in wheat yield
• Changes in potato yield
• Changes in spring barley yield
• Changes in winter barley yield
• Risk of crop pests and diseases
• Drier soils
• Changes in grassland productivity
• Increase in [soil] greenhouse gas emissions
• Soil erosion and leaching
• Waterlogging effects
• Agricultural land classification and crop suitability
• Human food supply from domestic agriculture
• Environmental effects of climate change mitigation measures [e.g. environmental effects of renewable energy developments]
• Changes in soil organic carbon
• Agricultural intensification

PART 5: PROCUREMENT

5(a) How have procurement policies contributed to compliance with climate change duties?

Provide information relating to how the procurement policies of the body have contributed to its compliance with climate changes duties.

The James Hutton Institute approved a new procurement strategy in February 2016. The new strategy is a significant improvement on the previous procurement policy in terms of addressing our climate change duties. Indeed, one of the explicitly stated overall aims of the new strategy is to “Back the Institute’s commitment to sustainable development and corporate social responsibility”.

The strategy is based on 6 key procurement principles, the last 3 of which are relevant to our climate change duties:
1. Value for Money
2. Transparency and Accountability
3. Efficiency
4. Sustainability
5. Compliance
6. Social Responsibility

In terms of implementing these principles, the strategy sets out some objectives. Objective 2 is to “Maximise the delivery of responsible procurement”, including specifically “adopt the Scottish Government Sustainable Procurement Action Plan”. This is planned for end of March 2017 and will be covered in our next annual report on meeting the climate change duties.

5(b) How has procurement activity contributed to compliance with climate change duties?

Provide information relating to how procurement activity by the body has contributed to its compliance with climate changes duties.

Given that there was only a month between the adoption of the new procurement strategy and the end of the reporting period, climate-relevant actions taken as a result of the new strategy will be covered in our next annual report on meeting the climate change duties.

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5(c) Supporting information and best practice
Provide any other relevant supporting information and any examples of best practice by the body in relation to procurement.
See the Scottish Sustainable Procurement Action Plan here: http://www.gov.scot/Publications/2009/10/sspap. This covers what we intend to implement over the financial year‘16/17.

PART 6: VALIDATION AND DECLARATION

6(a) Internal validation process
Briefly describe the body's internal validation process, if any, of the data or information contained within this report.
The Environmental Review Committee reviewed the draft report during their meeting on the 9th of November, 2016. The committee's comments, as well as the feedback from the peer reviewers (see 6b), were incorporated and a new draft was sent to senior managers for review on the 14th of November. Managers were asked to comment on specific areas of the report as follows: Section 1 – Alasdair Cox (Director of Operations) Section 2 – Alasdair Cox Section 3 – Steve Petrie (Head of Estate & Facilities) and Alasdair Cox Section 4 – Euan Caldwell (Head of Farm, Field & Glasshouse), Steve Petrie and Alasdair Cox Section 5 – Briony Stewart (Head of Procurement) and Alasdair Cox Their comments were addressed in a final draft, which was reviewed and signed off by Colin Campbell, our chief executive on the 28th of November, 2016.

6(b) Peer validation process
Briefly describe the body's peer validation process, if any, of the data or information contained within this report.
A draft of the report was sent on the 28th of October, 2016, to: - Trudy Cunningham, Environment and Sustainability Officer, University of Dundee - Fraser Lovie, Sustainability and Social Responsibility Policy Adviser, University of Aberdeen - Erica Manfroi, Emissions Accountant, Aberdeen City Council Their responses were generally positive, praising our efforts to live up to our reporting duties. Their main comments concerned the limited scope of our emissions reporting. They suggested ways in which we could include waste, water and travel in our footprint. These suggestions have been taken on board and will be acted on in our next report.

6(c) External validation process
Briefly describe the body's external validation process, if any, of the data or information contained within this report.
We have decided that an external validation process would not be appropriate for this report as many of our actions are still in the early stages of development.

6(d) No validation process
If any information provided in this report has not been validated, identify the information in question and explain why it has not been validated.
n/a

6e - Declaration		
I confirm that the information in this report is accurate and provides a fair representation of the body's performance in relation to climate change.		
Name	**Role in the body**	**Date**
Joshua Msika	Sustainability Co-ordinator	2016-11-30

RECOMMENDED – WIDER INFLUENCE

Q1 Historic Emissions (Local Authorities only)
Please indicate emission amounts and unit of measurement (e.g. tCO2e) and years. Please provide information on the following components using data from the links provided below. Please use (1) as the default unless targets and actions relate to (2). (1) UK local and regional CO2 emissions: **subset dataset** (emissions within the scope of influence of local authorities): (2) UK local and regional CO2 emissions: **full dataset:**
Select the default target dataset

Table 1a													
Source	**Dataset**	**Sector**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Units**	**Comments**
	DECC Sectors													
	Other Sectors													

Table 1b													
Source	**Dataset**	**Sector**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Units**	**Comments**
	DECC Sectors													
	Other Sectors													

Table 1c													
Source	**Dataset**	**Sector**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**Units**	**Comments**
Other	DECC Sectors													
	Other Sectors													

Q2a – Targets									
Please detail your wider influence targets									
RPP Sector	**Action Type**	**Description**	**Type of Target (units)**	**Baseline value**	**Start year**	**Target saving**	**Target / End Year**	**Saving in latest year measured**	**Latest Year Measured**	**Comments**

Q2b) Does the Organisation have an overall mission statement, strategies, plans or policies outlining ambition to influence emissions beyond your corporate boundaries? If so, please detail this in the box below.

Q3) Policies and Actions to Reduce Emissions

RPP Sector	Action Type	Description	Start year for policy / action imple - mentation	Year that the policy / action will be fully imple - mented	Annual CO2 saving once fully imple - mented (tCO2)	Latest Year measured	Saving in latest year measured (tCO2)	Status	Metric / indicators for monitoring progress	Delivery Role	During project / policy design and implementation, has ISM or an equivalent behaviour change tool been used?	Please give further details of this behaviour change activity	Value of Investment (£)	Ongoing Costs (£/ year)	Primary Funding Source for Implementation of Policy / Action	Accountable body	Comments

Please provide any detail on data sources or limitations relating to the information provided in Table 3

Q4) Partnership Working, Communication and Capacity Building.
Please detail your Climate Change Partnership, Communication or Capacity Building Initiatives below.

Key Action Title	Action Type	Organisation's project role	Lead Organisation (if not reporting organisation)	Private Partners	Public Partners	3rd Sector Partners	Outputs	Value to Organisation	Total Investment into Partnership	Comments

OTHER NOTABLE REPORTABLE ACTIVITY

Q5) Please detail key actions relating to Food and Drink, Biodiversity, Water, Procurement and Resource Use in the table below.				
Key Action Title	**Key Action Description**	**Organisation's Project Role**	**Impacts**	**Comments**

Q6) Please use the text box below to detail further climate change related activity that is not noted elsewhere within this reporting template