



Environmental Audit of the IES Operations 2014

Assessment conducted by Adam Donnan

The Institution of Environmental Sciences and the Society of the Environment, of which it is a constituent body, stand for the development and application of environmental sciences to promote sustainable development. For this reason, we are mindful of the need to measure and improve the environmental and social impacts of our own operations.

The Natural Step Framework

The 2014 environmental audit uses the science-based sustainability framework developed by The Natural Step (TNS) to undertake an evaluation of:

- The current state of the Institution's operations
- Our vision of where we aspire to be (in terms of sustainability)
- The steps required to achieve these goals

The framework takes a systems approach to understanding the natural cycles of the planet. At its heart is a science-based model of a sustainable Earth system, defined by physical laws and ecological principles. From this model, it is possible then to derive four 'System Conditions' (first-order principles) which collectively define sustainability:

In a sustainable society, our natural environment should not be subject to systematically increasing...

1. *...levels of extraction of resources*
2. *...amounts waste produced by society*
3. *...and physical degradation*

...and in that society...

4. *... people should not be subjected to conditions that undermine their capacity to meet their own needs.*

The way that TNS Framework is applied to promote sustainable development is through a step-wise process as follows:

- *Step A: Awareness* comprises an understanding of sustainability, represented by TNS model and its four System Conditions;
- *Step B: Baseline analysis* wherein the product or process is evaluated on the basis of the four System Conditions;
- *Step C: Compelling vision* is achieved through judgements of feasibility and identifying conditions when the Conditions are met
- *Step D: Doing it* through prioritising the incremental steps that lead from present conditions (B) towards the vision of a fully sustainable future (C). This is done by analysing the suggestions through the lens of the following strategic questions:
 - (i) Is the direction that is being taken correct?
 - (ii) Can this investment be enhanced in future so as to eventually fully comply with the four Sustainability Principles?
 - (iii) Will there be a sufficient return on the investment (with regard to financial, social and ecological capitals) to warrant continued transition?

The Sustainability Audit and Action Plan

The first stage of the Audit reflected Steps A and B, using the four Systems Conditions to assess the current performance and impact of the IES's operations. Following on from that, Step C identified our sustainability goals and where we aim to be in the future. Finally, Step D highlighted achievable and practical measures that could be enacted in order to move towards our long term goal of a 'Sustainable IES'. This was taken to be either individual actions or those undertaken to influence others.

The following tables summarise the key features of the audit, noting that:

1. The current situation is assessed honestly and with no element of 'blame' for poor performance in the past. This reflects the many instances of societal 'business as usual' and of the economic pressures that force or incentivise unsustainable practice.
2. Sustainability goals may be difficult or impossible to achieve immediately for a range of reasons. However, the goals are set with the IES's goals and ambitions in mind.
3. 'Future improvements' refers to measures that can be taken to make progress from current practice to long-term goals. They are not a commitment to immediate action, but represent pragmatic proposals upon which we may be able to work on in the future.

TNS System Condition 1: the natural world is not subject to unsustainable levels of resource extraction

Aspect	Sustainability Goal/ Vision	Current Practise	Steps to reach vision
Fossil Fuel - Heating	Carbon Neutrality	<ul style="list-style-type: none"> Gas central heating supplied to entire block by Grosvenor Estates, and inclusive in rent price. 	<ul style="list-style-type: none"> The building is currently being retrofitted to be more energy efficient. This includes adding thermal insulation, double glazing and draft exclusion.
Fossil Fuel - Electricity	Energy self-sufficiency	<ul style="list-style-type: none"> Electricity supplied to entire block by Grosvenor Estates, and inclusive in rent price. Energy efficient light bulbs fitted in all lights in office. Good practice in turning off unnecessary equipment when not in use. 	<ul style="list-style-type: none"> LED lighting currently being fitted throughout the building. Propose business case to Grosvenor for investing in renewable sources for whole building,
Fossil Fuel – Transport (1) <i>of employees</i>	Carbon Neutrality	<ul style="list-style-type: none"> At personal discretion, but mostly use of public 	<ul style="list-style-type: none"> Continue to encourage staff use of public

		<p>transport or cycling.</p> <ul style="list-style-type: none"> • Some international flights to meetings outside of the UK. • Policy to investigate and plan the best alternative to flights for travel within Europe, and use flights only if financial and time outlay is deemed to be unfeasible. • Internal flights banned for staff. 	<p>transport and cycling.</p>
<p>Fossil Fuel – Transport (2) <i>of others</i></p>	<p>Carbon Neutral</p>	<ul style="list-style-type: none"> • We encourage attendees at our events and visitors to the office to make use of public transport by highlighting nearby tube stations, bus routes and Barclays Cycle hire terminals. • We investigate policies of current suppliers and minimise delivery journeys by bulk buying when feasible. 	<ul style="list-style-type: none"> • Consider holding regional events such as ‘CEnv in a day’ to minimise need for members to travel to London.

<p>Petrochemical-based materials (i.e. carpets)</p>	<p>Beneficial reuse of benign re-integration into natural cycles.</p>	<ul style="list-style-type: none"> • No control at present (supplied by Grosvenor Estate) • Minimal use of plastic-based materials such as plastic bags and stationary • When making purchasing decisions, we look to products that can be repaired or refilled and reused and with longevity. • We work with other charities in building to combine waste collections bags, minimising the need for unnecessary plastic bag use. • Recycled toner cartridges used on main printer. 	<ul style="list-style-type: none"> • Maintain current good practice.
<p>Heavy Metals</p>	<ul style="list-style-type: none"> • Reduction in use of materials that use heavy 	<ul style="list-style-type: none"> • Minimal use of products that contain heavy 	<ul style="list-style-type: none"> • When making purchasing decisions look for

	<p>metals.</p> <ul style="list-style-type: none"> • Full recycling of those that do. 	<p>metals- mostly restricted to office furniture and computer equipment.</p> <ul style="list-style-type: none"> • All old furniture is listed on Freecycle for reuse or sent for recycling. • Old computer equipment sent for recycling. 	<p>products with low heavy-metal content.</p> <ul style="list-style-type: none"> • Consider purchasing second hand/reconditioned products.
Nutrients	<ul style="list-style-type: none"> • Within natural assimilative capacity 	<ul style="list-style-type: none"> • Not a major issue with our operations 	<ul style="list-style-type: none"> • Keep under review.
Radioactive matter	<ul style="list-style-type: none"> • Within natural assimilative capacity 	<ul style="list-style-type: none"> • Not a major issue with our operations 	<ul style="list-style-type: none"> • Keep under review.

TNS System Condition 2: the natural world should not be overwhelmed with unsustainable levels of waste production

Aspect	Sustainability Goal/ Vision	Current Evaluation	Future Steps towards Vision
Decommissioned equipment	No accumulation in nature of synthetic persistent substances.	<ul style="list-style-type: none"> • Minimisation • Recycling where facilities available. 	<ul style="list-style-type: none"> • Purchase of durable/long life equipment. • Repair
Consumable (printer cartridges)	Consumables non-toxic and where possible beneficially reused.	<ul style="list-style-type: none"> • Ink cartridges are sent to a charity to be recycled. 	
Food Waste	<p>Locally and sustainably sourced.</p> <p>Zero food waste.</p>	<ul style="list-style-type: none"> • Sustainably sourced where possible. • Packaging recycled 	<ul style="list-style-type: none"> • Compost food waste. • Consider the packaging of food when making

		<p>where possible</p> <ul style="list-style-type: none"> • Waste minimisation by not over-ordering. 	<p>purchases.</p> <ul style="list-style-type: none"> • Continue to order only food that is needed.
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TNS System Condition 3: nature should not be subject to systematically increasing degradation by physical means.

Aspect	Sustainability Goal/ Vision	Current Evaluation	Future Steps towards Vision
Wood	Use and disposal matches natural productivity, and waste not accumulating.	<ul style="list-style-type: none"> • Purchase FSC products. • Encouraging reuse through Freecycle. 	<ul style="list-style-type: none"> • Purchase durable products with long-lives. • Consider buying second hand.
Paper	<ul style="list-style-type: none"> • Use and disposal matches natural productivity. • Zero waste. 	<ul style="list-style-type: none"> • Use of emails as primary means of contact-encouraging correspondents not to print emails unnecessarily. • Online newsletter. • Journal printed on FSC paper. • Scrap paper used in printer where possible. • Double sided printing. 	<ul style="list-style-type: none"> • Move sign up and CPD records online. • Encourage members to opt out of paper copies of the journal and receive electronic copies only.

		<ul style="list-style-type: none"> • All paper recycled. • Online renewals to reduce the need to send in payments. 	
Water	Use in balance with available resource and wastes assimilated by nature.	<ul style="list-style-type: none"> • Standard Thames Water connection to portable and waste infrastructure. • No bottled water used in office. 	<ul style="list-style-type: none"> • Maintain current good practice.

TNS System Condition 4: people should be able to achieve a sufficient standard of living

Aspect	Sustainability Goal/ Vision	Current Evaluation	Future Steps towards Vision
Staff	Equity for all employees and volunteers.	<ul style="list-style-type: none"> • No issues identified among staff. • Maintain an Equality and Diversity Policy. 	<ul style="list-style-type: none"> • Continue to encourage full integration of staff.
Access	Access for all, regardless of age, race, gender, sexuality, religion or disability.	<ul style="list-style-type: none"> • No prejudice in policy and membership . • Communication at all levels in English only. • Poor office access for 	<ul style="list-style-type: none"> • Consider translating forms and documents into other common languages. • Consider reprinting forms in alternative formats,

		disabled, though visits to office are infrequent.	<p>such as Braille or in large print.</p> <ul style="list-style-type: none"> • Make use of online language tools including reading tools. • Grosvenor investigating disabled access to premises.
Supply chains – advice and enforcement	<ul style="list-style-type: none"> • IES an agent for sustainable operations. • Only purchase goods that have sustainable supply chains. 	<ul style="list-style-type: none"> • Journal sourced sustainably. • Other equipment – little or no pressure exerted on supply chains. • A standard questionnaire is sent to all new suppliers. Contracts decided on both cost and sustainability. 	<ul style="list-style-type: none"> • Maintain good practice.
Stakeholder relations – membership	Fully engaged and actively involved, and keen to promote IES to peers.	<ul style="list-style-type: none"> • Needs work to ensure that members (and potential members) feel valued and engaged. 	<ul style="list-style-type: none"> • Address as part of the ongoing strategy for the Institution.
Stakeholder relations – related charities in Grosvenor Gardens Office	Working collectively to promote shared sustainability aims.	<ul style="list-style-type: none"> • Relations are good, but lack of coordination in matters that concern all. 	<ul style="list-style-type: none"> • Improve relationships by liaising with other charities on issues that concern all.

		<ul style="list-style-type: none">• No sense of 'collective voice.'	<ul style="list-style-type: none">• Consider implementing meetings with other charities to discuss issues and lobby Grosvenor Estates when necessary.
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