FORMAT		
1. Name of resource	**Greening Universities Toolkit V.2.0: Transforming Universities Into Green and Sustainable Campuses**	
2. Location	https://www.unep.org/resources/toolkits-manuals-and-guides/greening-universities-toolkit-v20	
3. Alternative location	https://www.scribd.com/document/394531223/Greening-University-Toolkit-V2-0	
4. Author[s]	Dave, M., Gou, Z., Prasad, D. and F. Li	
5. Publisher/producer/host	UNEP	
6. Year	2014	
7. Suggested citation	Dave, M., Gou, Z., Prasad, D. and F. Li (2014). Greening Universities Toolkit V.2.0. UNEP, available at https://www.unep.org/resources/toolkits-manuals-and-guides/greening-universities-toolkit-v20	
8. Languages in which available	English	
9. Geographic area resource relates to	Worldwide	
10. Does the resource relate to a specific time frame?		
11. Type	Report	Yes
	Toolkit/Framework/Roadmap	Yes
	Sign-post to other resource (database)	
	Case studies	Yes
	Other	
12. If this is part of an initiative, what is the initiative?	"The Toolkit was conceived in 2011 as part of the Greening Universities Initiative set up by UNEP's Environmental Education and Training Unit (EETU) in partnership with other UN agencies and leading "green universities" experts and researchers, under the umbrella of the Global Universities Partnership for Environment and Sustainability (GUPES)…" (p.vii)	
COLLECTIONS AND COLLECTIONS-BASED INSTITUTIONS		
13. Explicit links to collections	No	
14. Explicit links to museums/libraries/archives	Yes	
15. Types of institutions relevant to	Museums	X
	Archives	X
	Libraries	X
	Other	X

16. Does the resource relate to specific disciplines?	Arts, humanities and social sciences: philosophy, psychology, religion, social sciences, law, politics, language, arts and recreation, architecture, literature, history, geography and ethnology, anthropology, archaeology	
	Science, natural history, technology, medicine, engineering, manufacturing	X
17. If no explicit links to collections, justification for inclusion	The resource can help to green universities, most of which contain libraries, and many contain museums and archives. Collections-based institutions can implement the resource to green their own operations. The resource uses a comprehensive and coherent approach to implementing sustainable practices.	

HOW IT CONTRIBUTES TO SUSTAINABLE DEVELOPMENT

18. Collections-related activities the resource relates to (mark all that apply)

Develop collections to protect and safeguard wider cultural and natural heritage more effectively, for example by targeting collecting to threatened forms of heritage in strategic ways	
Use collections to promote learning and educational opportunities that contribute to sustainable development more effectively, for example education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development and/or skills development relating to collections	
Use collections to promote cultural participation/social inclusion more effectively, for example by reducing barriers to participation, to ensure no-one is 'left behind'	
Use collections to promote sustainable tourism more effectively, for example by developing new products based on local cultural heritage, and/or considering the rights of stakeholder groups in relation to collections	
Use collections to support research that contributes to sustainable development (including all forms of personal and self-directed research at all levels that make use of stored collections) more effectively, for example by providing effective facilities, collections and information to meet researchers' needs	
Make decisions around collections that contribute to sustainable development more effectively	
i. employment (recruiting, staff training, staff safety)	X
ii. energy consumption, greenhouse gas emissions,	X

	reduction, monitoring and reporting	
iii.	waste management and reduction of waste	X
iv.	transport (forms of transport, energy use)	X
v.	commercial activities including copyright and IP	X
vi.	governance and management	X
vii.	security, disaster preparedness and risk reduction	
Direct external leadership, partnerships and collaborations towards sustainable development more effectively, for example by developing impactful partnerships		X
19. Does the resource relate clearly to any international conventions (mark all that apply)?		
Culture conventions:		
1952, 71 Protection of Copyright and Neighbouring Rights		
1954 Protection of Cultural Property in the Event of Armed Conflict		
1970 Fighting Against the Illicit Trafficking of Cultural Property		
1972 Protection of the World Cultural and Natural Heritage		
2001 Protection of the Underwater Cultural Heritage		
2003 Safeguarding of the Intangible Cultural Heritage		
2005 Protection and Promotion of the Diversity of Cultural Expressions		
Rio Conventions:		
Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), Framework Convention on Climate Change (UNFCCC)		X
AIMS AND CONTENT		
20. What issues does the resource aim to address?	"The objective of this Toolkit is to inspire, encourage and support universities to develop and implement their own transformative strategies for establishing green, resource efficient and low carbon campuses. It will provide an opportunity to build stakeholder capacity to deliver systemic, institution-wide integration of sustainability principles into all aspects of university business. This initiative is intended to improve the sustainability performance of universities globally and to provide support to other stakeholders embarking on their own sustainability journeys. Further, it will enhance the practical relevance of universities to sustainable development and by extension, the new paradigm of the "green economy". In short, the aim is to encourage and promote the contribution of universities to the overall sustainability of the planet. We cannot have a sustainable world where universities promote unsustainability – conversely, the sustainable university can help catalyse a more sustainable world…	
	This Greening Universities Toolkit is designed to provide	

	universities with the basic strategies and tactics necessary to transform themselves into green, low carbon institutions with the capacity to address climate change, increase resource efficiency, enhance ecosystem management and minimise waste and pollution. To effectively support this journey and other transformative processes in Universities, the Toolkit is structured in such a way that the focus is on the sustainable planning, design, development and management of the university campus…" (p.iv)
21. Intended audience of resource	Employees and administrators of universities
22. Process of development	"The Toolkit was conceived in 2011 as part of the Greening Universities Initiative set up by UNEP's Environmental Education and Training Unit (EETU) in partnership with other UN agencies and leading "green universities" experts and researchers, under the umbrella of the Global Universities Partnership for Environment and Sustainability (GUPES). UNEP's approach to this project involves: • Developing criteria for green/sustainable campuses, including infrastructural, managerial and operational considerations; • Supporting the development and implementation of strategies for transforming Universities into green/ sustainable campuses; • Advocacy, lobbying and publicity activities for greening Universities; • Developing and launching a global award scheme for green Universities. Publication of this Toolkit addresses the first of these four objectives. The University of New South Wales (UNSW) Faculty of the Built Environment was engaged to prepare the draft Toolkit for review by UNEP. This process involved four stages: • An extensive review of the green University literature, including both academic research and the so-called "grey" literature of reports, websites and operational material produced by individual Universities and international and national associations relevant to University sustainability; • Two international workshops auspiced by GUPES, held in Santiago, Chile in September 2011 and in Nairobi, Kenya in February 2012, which reviewed and discussed work in progress and provided input and direction to the final document; • Collection of a substantial body of best practice case studies from Universities worldwide both to inform the content of the Toolkit overall and to

		include as a standalone Chapter on global exemplars; and • Final review by the EETU to ensure currency, consistency and alignment with the objectives of the UNEP Greening Universities Initiative.
23. Organisation/structure/contents		"CHAPTER 1 establishes the context with a brief introduction to sustainability and sustainable development, the elements expected of a sustainable university, and brief cost-benefit analyses for greening university campuses. CHAPTER 2 addresses the strategic infrastructural, managerial, operational and cultural issues to be considered in setting up a framework for sustainability planning and management. CHAPTER 3 defines key performance indicators and examples to measure sustainable campus. CHAPTER 4 sets out generic guidance measuring key performance of university campuses and also suggest key strategies to improve the performance. CHAPTER 5 outlines a methodology and potential criteria for a global award scheme to facilitate continual improvement in university sustainability performance. CHAPTER 6 lists a variety of books, journals, associations and websites which can provide further information and guidance on university sustainability topics. CHAPTER 7 is an introductory brochure which presents a brief outline of the overall project and a concise summary of the outcomes. CHAPTER 8 presents a series of best practice case studies from universities around the world. Finally, a reference list is included which sets out the full list of references drawn on and the methods and calculations used to inform the development of the Toolkit." (p.13)
FRAMEWORKS		
24. Framework structure		The process overview can be considered as a framework: **"1. Making the commitment** This commonly includes developing a sustainability vision and/or mission statement, and/or signing a third party declaration or charter on university sustainability.

2. Engaging the university and wider community

Includes strategies and tactics for engaging with and securing the participation of university stakeholders (academic and operational staff and students) as well as the wider community of alumni, industry partners, government agencies, local schools and residents, etc.

3. Developing a sustainability policy

The university's sustainability policy is the high level driver for its short- and long-term sustainability goals.

4. Establishing a sustainability committee

The committee, representing staff and students and chaired by a member of senior management, is responsible for input to and review of the university's sustainability policy, objectives, targets and action plans, for final management approval.

5. Setting up the sustainability team

Top management should appoint a sustainability manager with sufficient authority, resources and freedom to act, who may head a professional sustainability unit and/or coordinate a team of staff and student volunteers, depending on the size and resources of the particular university.

6. Determining the baseline: initial environmental / sustainability reviews

This provides the starting point for prioritising issues for action (for example through application of risk assessment methods) and setting objectives and targets.

7. Selecting and defining indicators

Indicators enable tracking of progress towards achievement of objectives and targets. Suggested indicator themes are: energy, carbon and climate change; water use; land use; material flows; sustainability in research; education for sustainability; governance and administration; and community outreach.

8. Setting objectives and targets

Objectives are overall goals arising from the university's sustainability policy; targets are detailed performance requirements set to achieve the objectives. Targets should be "challenging but achievable", and should reflect the university's commitment to sustainable development and the ultimate achievement of a sustainable university.

9. Developing and implementing sustainability action plans

Sustainability management programs or action plans are the engine room for change. Plans are time-bound, and developed and reviewed on a regular basis in line with the sustainability targets. The plans set out in this Toolkit

	address the following substantive areas: Energy, Carbon and Climate Change; Water; Waste; Biodiversity and ecosystem services; Planning, Design & Development; Procurement; Green office; Green lab; Green IT; Transport Awareness and training Awareness building and training opportunities need to be built into every sustainability action plan. **10. Communications and documentation** Each sustainability action plan will need to incorporate a communications strategy to facilitate engagement of the university community and maximise the chances of success. Documentation of all aspects of the system minimises the loss of "corporate memory". **11. Closing the loop: monitoring, evaluating and communicating progress** This system requirement includes establishment of internal audit and management review cycles, annual sustainability reporting, and marketing promotion and celebration of successes." (p.29)
25. Relevant policy considerations	Yes
26. Resources for implementation identified	Yes
27. Specific assessment points/indicators/milestones/action plan for monitoring	Yes

28. ASPECTS OF SUSTAINABILITY COVERED BY RESOURCE (mark all that apply)	
People (social sustainability)	X
Planet (environmental sustainability)	X
Prosperity (economic sustainability)	X
Peace	X
Partnerships	X

29. CROSS-CUTTING CONSIDERATIONS COVERED BY RESOURCE (mark all that apply)	
Gender perspectives	
North and South perspectives	

HOW THE RESOURCE CONTRIBUTES TO AGENDA 2030 AND THE SDGs	
HOW AGENDA 2030 AND THE SDGs FEATURE IN THE RESOURCE	
30. SDGs and Agenda 2030 specifically mentioned?	No
31. SDGs specifically	No

mentioned?	
32. SDG targets specifically mentioned?	No
33. SDG indicators specifically mentioned?	No
SDGs AND SDG TARGETS AND LINKAGES	
34. Comments on SDG linkages	The resource presents a holistic approach to implementing sustainability practices, supporting SDG 12.6 (on encouraging organisations to take up sustainable practices and sustainability reporting). Particular sections address water pollution and water use (supporting SDGs 6.3 and 6.4), uptake of renewable energy and energy efficiency (SDGs 7.2 and 7.3), sustainable infrastructure (SDGs 9.1 and 9.4), sustainable use of natural resources (SDG 12.2), reducing food waste (12.3), managing pollutants and reducing waste (12.4, 12.5 and 14.1), green procurement (SDG 12.7). Addressing climate change supports SDG 13.3. Staff training to incorporate sustainability considerations supports SDGs 4.4 (skills for work), 4.7 (Education for Sustainable Development), 12.8 (information for lifestyles in harmony with nature) and 13.3 (which includes climate change education). Using university grounds for biodiversity-friendly purposes and to provide green public spaces supports SDGs 15.5 and 11.7. Having sustainability-friendly policies in place supports SDG 17.14 (policy coherence for sustainable development) and SDG 16.6 (effective and transparent institutions).
35. SDGs and SDG targets the resource helps advance	
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Number of young people and adults in skills-development activities and programmes drawing on collections, for employment, decent jobs and entrepreneurship Increase in number of young people and adults in such programmes Number and proportion of staff who have received training in the last year, to better support their contribution to the SDGs. Programs and processes in place to ensure the availability of a skilled workforce.

SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	Numbers of people in each type of programme drawing on collections from different demographic groups. Increases in numbers of people in each type of programme from different demographic groups. Proportion of people involved in such programmes in relation to overall audience size. Evidence that learners have acquired knowledge and skills to promote sustainable development.
SDG 6. Ensure availability and sustainable management of water and sanitation for all 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially	Amount of pollutants, and reduction in pollutants, to water systems. Plans in place for the identification, reduction, replacement and recycling of hazardous chemical and materials, to prevent their release into water systems, with plans to eliminate their use as soon as possible.
SDG 6. Ensure availability and sustainable management of water and sanitation for all 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and	Reductions in water use, increase in water recycling, preventing water shortages in vicinity. Information on, programmes relating to, and partnerships relating to water use drawing on collections and collections-based institutions in place, to support efficient use of water.

substantially reduce the number of people suffering from water scarcity	
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	Proportion of energy that comes from renewable sources. Date to achieve net zero, and milestones towards that date.
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.3 By 2030, double the global rate of improvement in energy efficiency	Reduction in energy use. Upgrade of old equipment to more efficient equipment. Uptake of renewable sources of energy.
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	Development of research-useful collections to support reliable, sustainable and resilient use by researchers and others. Number and proportion of collections facilities and stores that support economic development and human well-being. Number and proportion of collections facilities and stores that provide affordable and equitable access for all. Investment in collections facilities. Inclusion of collections information in regional and transborder initiatives, notably via digital access for discoverability.
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased	Number and proportion of collections facilities that: 1.make efficient use of resources, with an ongoing drive for efficiencies and reductions in energy use and waste of all forms. 2. use clean and environmentally sound technologies, including climate-friendly energy sources and materials, with an ongoing commitment to reduce greenhouse gas

resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	emissions and waste of all forms. 3. adopt and/or prioritise collections-related processes and practices to reduce greenhouse gas emissions and waste of all forms.
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	Numbers of people accessing collecting institutions from different demographic groups, notably women, children, older people and persons with disabilities. Increases in numbers of people accessing collecting institutions from different demographic groups. Measures taken to remove barriers to access green and public spaces. Extent of green space provided by collections institutions.
SDG 12 Ensure sustainable consumption and production patterns SDG 12.2 By 2030, achieve the sustainable management and efficient use of natural resources	Reduction of material footprint in terms of reductions in consumption of biomass, fossil fuels, metal ores and non-metal ores.
SDG 12 Ensure sustainable consumption and production patterns 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	Quantities, and reduction in quantities, of food waste, both in terms of waste going for treatment, and waste going to landfill or being otherwise discarded into the environment. Policies and plans in place to reduce and eliminate food waste as soon as possible.
SDG 12 Ensure sustainable consumption and production patterns 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in	Quantities, and reduction in quantities, of chemicals of all kinds, including chemicals used in maintenance of collections facilities, and chemicals used in care and preparation of collections, and all wastes throughout their life cycle, reducing release to air, water and soil. Plans in place to eliminate the use and release of hazardous

accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	chemicals and harmful wastes of all kinds into the natural environment as soon as possible.
SDG 12 Ensure sustainable consumption and production patterns 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Quantity and reductions in quantity of waste of all kinds, including avoidance/prevention of waste production, reuse, and recycling. Quantity of material recycled in comparison with quantity sent to landfill. Increases in recycling rate in comparison with landfill.
SDG 12 Ensure sustainable consumption and production patterns 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Clear visions, strategies and plans in place for all aspects of sustainability – environmental, social and economic (people, planet, prosperity)- across all areas of activity. Visions, strategies and plans relating to sustainability to be publicly available and incorporated into planning documents. Commitments to be in line with local, regional, national and/or international targets and ambitions. Incorporation of sustainability into reporting for funders and other stakeholders, including the public. Reporting to include commitments and progress towards targets.
SDG 12 Ensure sustainable consumption and production patterns 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	Incorporation of sustainability considerations into procurement, in terms of advertisement and invitation to tender, contracts, and selection criteria for suppliers.
SDG 12 Ensure sustainable consumption and production patterns 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for	*12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment*

sustainable development and lifestyles in harmony with nature	Extent to which global citizenship education and education for sustainable development (including climate change education) are mainstreamed in formal, informal and non-formal education programmes and activities drawing on and related to collections.
SDG 13. Take urgent action to combat climate change and its impacts 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Plans in place to enhance positive contributions to addressing climate change through use of collections. Plans in place to ensure collections, collections institutions and broader society can adapt effectively to climate change. Plans in place for effective education and awareness raising on climate change mitigation, adaptation, impact reduction and early warning. Plans in place to reduce negative contributions of collections-related functions, e.g. measuring greenhouse emissions with plans and targets in place to reduce them.
SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	Number of collections-related programmes, for example research and education, that aim to reduce marine pollution. Quantity, and reduction, of waste of all sorts, with plans in place to eliminate waste of all sorts as soon as possible. Quantity, and reduction, of plastic waste, with plans in place to eliminate the production and release of plastic waste as soon as possible.
SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020,	Number and proportion of habitats, notably endangered habitats, and species with favourable conservation status, with special reference to locally, nationally and globally endangered species. Information on, programmes relating to, collections development, and partnerships relating to habitats and species drawing on collections in place, to support their protection and continued existence. Measures taken to enhance biodiversity value of green space associated with collections institutions.

protect and prevent the extinction of threatened species	
SDG 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. 16.6 Develop effective, accountable and transparent institutions at all levels	*16.6.2 Proportion of the population [audience/users/non-users] satisfied with their last experience of public services* Access to information, and accountability policies and mechanisms, in place. Effective institutional arrangements, both for own working and for working in partnership with other sectors, in place. Plans and arrangements in place for extraordinary circumstances such as natural and human-caused disasters. Effective arrangements in place to fulfil legal and social obligations and responsibilities. Effective arrangements in place for transparent communication and reporting of institutional performance. Effective arrangements in place for transparent decision-making and accountability.
SDG 17. Partnerships for the goals 17.14 Enhance policy coherence for sustainable development	Proportion of policies that incorporate sustainable development considerations, linking to SDGs and indicators Incorporation of policy considerations from outside the collections sector into policies of collections-based institutions, to facilitate partnerships and effectiveness.

1		2	3		4	5		6
7		8	9		10	11		12
13		14	15		16	17		