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School of Earth & Environmental Sciences

EXAMINATION

Summer Final Examinations, 2019

ENVM7124 International Regulatory Frameworks for Climate Change and Environmental Management

This paper is for St Lucia Campus (External) and St Lucia Campus students.

Examination Duration:	120 minutes	For Examiner	•
Reading Time:	10 minutes	Question	Mark
Exam Conditions:			
This is a Central Examination	on		
This is a Closed Book Exar	nination - specified materials permitted		
During reading time - write	only on the rough paper provided		
This examination paper will	be released to the Library		
Materials Permitted In The	e Exam Venue:		
(No electronic aids are pe	rmitted e.g. laptops, phones)		
One A4 sheet of handwritte	n or typed notes double sided is permitted		
An unmarked bilingual diction	onary.		
Materials To Be Supplied	To Students:		
1 x 14-Page Answer Bookle	et		
Instructions To Students:			
Additional exam materials provided upon request.	s (eg. answer booklets, rough paper) will be	Total	
Answer all questions in the	writing book provided.		

PART A – SHORT ANSWER

1 question worth 3 marks. Allow up to 8 minutes to answer this question. Answer the questions in the writing booklet. Clearly number your answer.

1. A common misconception about climate change is that a rise of mean global temperature above pre-industrial levels of 2°C (the main goal of the *Paris Agreement*) will cause little or no harm because we commonly experience much greater daily temperature changes (of 10°C or more each day).

Explain why this misconception is wrong by reference to the effect of increasing extreme heat events on droughts and bushfires. Use a diagram if it assists your answer.

(3 marks – allow up to 8 minutes to answer this question)

PART B – MEDIUM-LENGTH ANSWERS

3 questions worth 6 marks each. Allow up to 16 minutes to answer each question.

Answer all questions. Clearly number your answers.

2. In a world first, the Pacific island nation of Palau has banned sunscreen containing chemicals that are "incredibly toxic" to its coral reefs.

The legislation to ban certain sunscreens and skin-care products came into effect on 1 January 2020 and is part of Palau's new *Responsible Tourism Education Act*.

Stores selling prohibited sunscreen could face fines of up to US\$1,000 (AUS\$1,387), and bottles will be confiscated from tourists upon entry into the country.

Palau's President Tommy Remengesau said the move was to ensure visitors and tourists "become part of the solution to the environmental challenges in our pristine paradise." He added, "Toxic sunscreen chemicals have been found throughout Palau's critical habitats, and in the tissues of our most famous creatures."

The ban covers ingredients such as oxybenzone and octinoxate, which are known environmental pollutants that can be incredibly toxic to juvenile stages of many wildlife species, including corals, fish, macroalgae and even people.

Advise the Government of Palau on whether the Act is lawful under international trade law. In your answer explain the source of the trade laws and the principles that will be applied to determine whether such restrictions are lawful. Assume that Palau is a party to any relevant international trade treaty.

(6 marks – allow up to 16 minutes to answer this question)

- 3. In 2015 the United Nations (UN) General Assembly adopted, by resolution, the *2030 Agenda for Sustainable Development* and its 17 Sustainable Development Goals. Two of the targets of Goal 12 (Ensure sustainable consumption and production patterns) of the Sustainable Development Goals are:
 - **12.2** By 2030, achieve the sustainable management and efficient use of natural resources
 - **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

Explain:

- (a) Are the Sustainable Development Goals and their associated targets legally binding on all members of the UN because they are a resolution of the UN General Assembly?
- (b) If a country fails to meet the targets of the Sustainable Development Goals, what are the consequences for it?
- (c) What is the role and importance of the Sustainable Development Goals and similar resolutions of the UN General Assembly for international and national environmental regulation and policy?

(6 marks – allow up to 16 minutes to answer this question)

4. Australia recently suffered catastrophic bushfires substantially caused by humandriven climate change. The fires killed at least 20 people directly and billions of animals. They caused billions of dollars of property damage. These impacts occurred with mean global temperature rises above pre-industrial levels of around 1 °C.

Explain:

- (a) What are the main goals or targets that have been set by the international community for stabilising mean global temperature rises to avoid dangerous climate change?
- (b) What impacts can Australia and other countries expect if the goals or targets set by the international community for stabilising mean global temperature rises to avoid dangerous climate change are achieved?
- (c) Based on current policies and commitments made internationally, what level of global temperature rise above pre-industrial levels is the global community on track to achieve?

(6 marks – allow up to 16 minutes to answer this question)

PART C – MANDATORY ESSAY

1 question worth 12 marks. Allow up to 32 minutes to answer this question. Answer the question in a writing booklet. Clearly number your answer.

5. Discuss the development of the major international environmental treaties since 1945 in the context of major historical and political events. Your analysis should explain the major administrative and regulatory frameworks created by the treaties and their historical context in terms of the major political and social events occurring when each treaty was created. What further developments can be expected in the future and why?

(12 marks – allow up to 32 minutes to answer this question)

PART D – CHOOSE ONE OF THREE ESSAYS

Choose <u>one</u> of three essay topics in Part D.

The essay is worth 12 marks. Allow up to 32 minutes to write your essay.

Answer the question in a writing booklet. Clearly number your answer.

6. Ove Hoegh-Guldberg and his colleagues concluded in "The human imperative of stabilizing global climate change at 1.5°C" (2019) 365 *Science* 1263, amongst other things, that:

"Warming of 1.0°C since the pre-industrial period has fundamentally transformed our planet and its natural systems. Multiple lines of evidence reveal that a 1.5°C world will entail larger risks to both human and natural systems. The risks of a 2°C world are much greater. This places us at a critical time in human history where proportionate action taken today will almost certainly minimize the dangerous impacts of a changing climate for hundreds of millions of people."

- (a) Critically analyse the arguments made by the authors in their article;
- (b) Discuss the implications of their arguments for future international and national action to address climate change; and
- (c) Provide two or more recommendations for improving climate policies in any country (e.g. China, Indonesia or Australia) based on the authors' arguments.

(12 marks – allow up to 32 minutes to answer this question) (Note: if you answer question 6, you do <u>not</u> need to answer questions 7 or 8) 7. Timothée Parrique and his colleagues wrote in *Decoupling debunked: Evidence and arguments against green growth as a sole strategy for sustainability*, published by the European Environmental Bureau in 2019:

"Is it possible to enjoy both economic growth and environmental sustainability? This question is a matter of fierce political debate between green growth and post-growth advocates. Over the past decade, green growth clearly dominated policy making with policy agendas at the United Nations, European Union, and in numerous countries building on the assumption that decoupling environmental pressures from gross domestic product (GDP) could allow future economic growth without end. ... this focus being based on the flawed assumption that sufficient decoupling can be achieved through increased efficiency without limiting economic production and consumption."

- (a) Critically analyse the arguments made by the authors in their report;
- (b) Discuss the implications of their arguments for future international and national action to address sustainable development; and
- (c) Provide two or more recommendations for improving sustainability policies in any country (e.g. China, Indonesia or Australia) based on the authors' arguments.

(12 marks – allow up to 32 minutes to answer this question) (Note: if you answer question 7, you do <u>not</u> need to answer questions 6 or 8)

8. Jan Froestad and Tabitha Benney argued in "China: A Global Renewable Energy Fulcrum?" (2019) 36 Environmental and Planning Law Journal 605:

"With its induction into the global economy, China became the manufacturing warehouse of the world – a world based on fossil fuels. ... This article explores China's modern energy policies as a basis for a national green energy transition. In this case, China has leveraged its unique position as both a developing country and an economic trade giant to radically promote its renewables industries, fund massive infrastructure projects, and incentivise green development and industries. Yet this has not led to radical decarbonisation at home or abroad. We consider the prospects of China as a global green energy fulcrum and find the outcome of this battle remains difficult to predict. If China succeeds in building the broad transformative alliance required, it has great potential. We conclude, however, that the weight of the evidence is somewhat dubious in this case unless China finds its intention leads to action."

- (a) Critically analyse the arguments made by the authors in their article; and
- (b) Discuss the implications of China's current energy policies for future global action on climate change; and
- (c) Discuss the implications of the election of Donald Trump as the President of the United States of America for future Chinese *and global* policies on climate change (note: do not limit your answer to this part to China).

(12 marks – allow up to 32 minutes to answer this question) (Note: if you answer question 8, you do <u>not</u> need to answer questions 6 or 7)

- END OF EXAMINATION -