Title of Course: Resilience and Adaptation Science (RAS)
Sub-Title: Using the Sustainable Development Goals as a Framework for Climate-Resilient Development
Coordinators: Dr. Riyanti Djalante
Course Schedule: From 1 Oct. until 6 Dec. 2019
Version: July 8th, 2019

Overview:
In 2015, countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. The Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. Because the Goals interconnect, they also offer a way to tackle all the goals simultaneously. Resilience is understood as the ability to respond and withstand shock, reorganize, learn and adapt. Strengthening resilience is vital to achieve the SDGs. This underpins the core message of the Sustainable Development Goals (SDGs) that development is multi-faceted and the achievement of many of the individual development goals is dependent on the accomplishment of other goals. It also acknowledges that shocks and stresses can reverse years of development gains and efforts to eradicate poverty by 2030.

Learning Outcomes:
This course outlines a comprehensive approach for developing a cross-sectoral, multi-dimensional and dynamic understanding of resilience. It further covers a range of issues on the science and impacts of climate change, adaptation and mitigation to climate change, governance and climate resilience. There are 3 parts of this course:

Part 1: Climate change, resilience and sustainable development: What is sustainable development? How have the concepts of resilience and sustainability progresses in science and policy. How have and will climate change will undermine development?

Part 2: Climate change and the 17 SDGs: What are the 17 goals, What is the current progress of each goal?, How are the 17 goals interlinked through Goal 13?

Part 3: Governing and financing climate change: What are the sources of finance for climate change? What other international frameworks are related to the SDGs?, what are the innovative climate change governance?
## Course Outline

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Date</th>
<th>Content</th>
<th>Assignment</th>
<th>Instructor</th>
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<tr>
<td><strong>Part 1: Climate change, resilience and sustainable development</strong></td>
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<tr>
<td>Lecture 1</td>
<td>15 Oct, 11:00-12:30</td>
<td>Introduction of the course Resilience, climate change and sustainable development</td>
<td>Assignment 1: Annotated bibliography 1 (Due on the Friday, 23.55)</td>
<td>Dr. Riyanti Djalante</td>
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<td>Lecture 2</td>
<td>15 Oct, 14:00-15:30</td>
<td>The science and impacts of climate change: Air, Land, Biota, Water, Ocean</td>
<td>Assg 1: AB 2</td>
<td>Dr. Riyanti Djalante</td>
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<td><strong>Part 2: Climate change and the 17 SDGs</strong></td>
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<td>Lecture 3</td>
<td>17 Oct, 11:00-12:30</td>
<td>SDG 13 and key interlinkages with the other 16 SDGs Introduction to climate change mitigation and adaptation planning</td>
<td>Assg 1: AB 3</td>
<td>Dr. Riyanti Djalante</td>
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<td><strong>Part 2.1 Climate change, Human Development, inequality</strong></td>
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<td>Lecture 4</td>
<td>17 Oct, 14:00-15:30</td>
<td>Climate change, poverty and hunger: SDG 1, SDG 2</td>
<td>Assg 1: AB 4</td>
<td>Dr. Riyanti Djalante</td>
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<td>Lecture 5</td>
<td>12 Nov, 11:00-12:30</td>
<td>Climate change, health and education: SDG 3, SDG 4</td>
<td>Assg 1: AB 5</td>
<td>Dr. Riyanti Djalante</td>
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<tr>
<td>Lecture 6</td>
<td>12 Nov, 14:00-15:30</td>
<td>Climate change, gender and inequality: SDG 5, SDG 10</td>
<td>Assg 1: AB 6</td>
<td>Guest Lecture TBA</td>
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<td><strong>Part 2.2 Climate change and sectoral resilience</strong></td>
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<td>Lecture 7</td>
<td>19 Nov, 11:00-12:30</td>
<td>Climate change and water resilience: SDG 6</td>
<td>Assg 1: AB 7</td>
<td>Dr. Riyanti Djalante</td>
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<td>Lecture 8</td>
<td>21 Nov, 11:00-12:30</td>
<td>Climate change and energy resilience: SDG 7 Climate change mitigation: Key policies and progresses in different energy sectors</td>
<td>Assg 1: AB 8</td>
<td>Guest Lecture TBA</td>
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<td><strong>COP 25, Santiago, 11-22 Nov 2019,</strong></td>
<td>Assignment 2 Research paper 25 Oct. (Fri) 2019, 23.55pm</td>
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<td>Lecture 9</td>
<td>26 Nov, 11:00-12:30</td>
<td>Climate change and economic resilience: SDGs 8 &amp; 9</td>
<td>Assg 1: AB 9</td>
<td>Dr. Riyanti Djalante</td>
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<tr>
<td>Lecture 10</td>
<td>28 Nov, 11:00-12:30</td>
<td>Climate change and sustainable production and consumption: SDG12</td>
<td>Assg 1: AB 10</td>
<td>Guest Lecture TBA</td>
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<td>Lecture 11</td>
<td>3 Dec, 11:00-12:30</td>
<td>Climate change and urban resilience: SDG 11</td>
<td>Assg 1: AB 11</td>
<td>Guest Lecture TBA</td>
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<td>Lecture 12</td>
<td>5 Dec, 11:00-12:30</td>
<td>Climate change and disasters: SDG13 Climate Change adaptation and Disaster risk reduction</td>
<td>Assg 1: AB 12</td>
<td>Dr. Riyanti Djalante</td>
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<td>Lecture 13</td>
<td>10 Dec, 11:00-12:30</td>
<td>Climate change and the ecosystem: SDGs 14, 15 Climate change impacts, adaptation and mitigation water, agriculture, forestry sectors</td>
<td>Assg 1: AB 13</td>
<td>Guest Lecture TBA</td>
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<td><strong>Part 2.3 Financing and governing climate change</strong></td>
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<td>Lecture 14</td>
<td>12 Dec, 11:00-12:30</td>
<td>Climate change finance and insurance, and governance Global coherence: Linking Paris Agreement, SFDRR and SDG</td>
<td>Assg 1: AB 14</td>
<td>Guest Lecture TBA</td>
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<td>Lecture 15</td>
<td>17 Dec, 11:00-12:30</td>
<td>Conclusion of the class Student presentations</td>
<td>Assignment 3 Presentation (Due 17 Dec, 23.55) (ppt file)</td>
<td>Dr. Riyanti Djalante</td>
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Assignment 4 Critical review 19 Dec, 23.55pm
### Assessments:

#### Attendance and class participation:
- 7% of total marks
- 80% attendance is required.
- Prior approval is required for absence

#### Assignment 1: Annotated bibliography
- 14x2%=28% of total marks
- Write an annotated bibliography on key topics discussed (from Lecture 1 to 14)
- 4 References @ 75-100words (journal articles only). You can certainly use those from the reading list or other journal articles
- Arial 12
- Course name, lecture topic, student name and number, are in the header
- For assignment 1, late assignment is not acceptable.

#### Assignment 2: Review paper of negotiation processes, key issues, progress, challenges, key actors during COP 25 in Santiago
- 20% of total marks
- Write is a description/reporting style
- Key topics to describe:
  - What is COP and how important is COP within the UNFCCC processes
  - Who are the key actors within UNFCCC processes
  - What are the key issues being negotiated
  - What are the issues brought by different actors/levels
  - What are the deadlocks and why
  - How is the representation of minority groups, youths, etc
  - What are the final decisions/key documents adopted
  - Do you think this is a successful COP? Why/Why not?
- 2000 words, Arial 12, 1.5 space, double side, cover page, references (min 10 journal articles, and reports)
- Harvard referencing style

#### Assignment 3: Class Presentation of Assignment 4 (Critical review of climate change management at different sector)
- 10% of total marks
- 5 minute presentation,
- Maximum 5 slides
  - 1 on discussion of the impacts of climate change on that particular sector (globally and regionally)
  - 1 on review of finances and progress in planning and implementation (globally and regionally)
  - 1 on your review and critique progress in planning and implementation (globally and regionally)
  - 2 on your critique on whether they have address the underlying causes vulnerability, reduce poverty and address inequality, building resilience, and reduce emissions
• Assignment 4: Critical review of climate change management at different sectors
  o 35% of total marks
  o Key topics to review and critique:
    ▪ Choose a particular development sector (include but not limited to fisheries, agriculture, disaster management, gender empowerment, etc)
    ▪ Discuss the impacts of climate change impacts on that particular sector (globally and regionally)
    ▪ Outline the finances available to deal with the impacts, discuss whether this is sufficient or not, and why
    ▪ Describe and critique progress in planning and implementation (globally and regionally) (adaptation and mitigation if appropriate)
    ▪ Discuss whether the planning and implementation has been able to reduce the underlying causes vulnerability of particular places/targets, reduce poverty and address inequality, building resilience, and reduce emissions
  o 3000 words, Arial 12, 1.5 space, double side, cover page, references (min 25 journal articles, and reports)
  o Harvard referencing style
• Others considerations:
  o For assignment 2,3,4, 3 points will be deducted for every day they are late. Assignments that are 1 month late will be rejected.
  o We will check for plagiarisms. A minimum 20% similarities is required.
Reading materials:

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- UNEP Global Environmental Outlook 6  
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livelihoods. *Adapting to climate change: thresholds, values, governance, 350-367.

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<td>Climate change adaptation and Disaster risk reduction</td>
<td>- UNISDR 2015 Sendai Framework for Disaster Risk Reduction 2015-2030</td>
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<td>- UNDP 2010 Disaster Risk Reduction Governance and Mainstreaming</td>
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<td>Climate Change Finance and Insurance, and Global coherence: Linking Paris Agreement, SFDRR and Agenda 2030 (SDGs) Conclusion of the class</td>
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