

# 國立臺北大學自然資源與環境管理研究所

## 111 學年度第一學期 『環境工程科學概論』

課程講義(15)：企業永續與氣候韌性發展  
Corporate Sustainability and Climate Resilient Development

### ●SUSTAINABLE DEVELOPMENT

- “Definition” of Sustainable Development  
Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.  
(<https://www.un.org/sustainabledevelopment/development-agenda/>)
- [UN Conference on Sustainable Development](#) => [Environment and Sustainable Development](#)
  - ⇒2022 [Stockholm+50](#)
  - ⇒2015 UN Sustainable Development Summit + UNFCCC COP21
  - ⇒2012 UN Conference on Sustainable Development (Rio+20 Earth Summit)
  - ⇒2002 World Summit on Sustainable Development
  - ⇒1997 Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21 (Earth Summit+5)
  - ⇒1992 UN Conference on Environment and Development (Rio Earth Summit)
  - ⇒1972 United Nations Conference on the Environment
- Conventions, Initiatives, Frameworks, and Nexus => Outcomes of the Summits
  - ⇒Stockholm+50: A healthy planet for the prosperity of all – our responsibility, our opportunity
  - ⇒UNSD Summit: Agenda 2030 (SDGs); UNFCCC COP21: Paris Agreement
  - ⇒Rio+20: The Future We Want; Rio+10: WEHAB Framework
  - ⇒Rio Earth Summit: Agenda 21, the Rio Declaration on Environment and Development, the Statement of Forest Principles, UNFCCC, UN Convention on Biological Diversity, ISO 14000 series Standards

### ●UN SUSTAINABLE DEVELOPMENT GOALS

- UN Millennium Development Goals
- UN Sustainable Development Goals
  - ⇒2030 Agenda for Sustainable Development
  - ⇒17 Goals => 169 targets => 232 indicators
  - ⇒Voluntary National Review (VNR) => VLR, VDR => [永續發展自願檢視\(ndc.gov.tw\)](http://ndc.gov.tw)
  - ⇒The 5P Principles: Prosperity, People, Planet, Peace, Partnership
- Taiwan’s Sustainable Development Goals [臺灣永續發展目標](#)
  - ⇒“The 18th Goal” => 2030 (or 2025) Agenda for Sustainable Development
  - ⇒18 Goals => 143 targets => 336 indicators
  - ⇒Targets 具體目標? Indicators 對應指標?
- Beyond 2030
  - ⇒The World in 2050 (<https://www.unsdsn.org/the-world-in-2050>)
  - ⇒Report of the UN Secretary-General: “Our Common Agenda” => [12 commitments](#)
  - ⇒EU Climate Action > 2050 long-term strategy > [Climate neutral economy by 2050](#)
  - ⇒Net Zero Emissions by 2050: [UN Net-zero Coalition](#);  
[IEA An updated roadmap to Net Zero Emissions by 2050](#)

## ● CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE SUSTAINABILITY

- Corporate Social Responsibility (CSR) [UNIDO's Definition](#)  
Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders.  
=> Similar concepts: corporate responsibility, corporate citizenship, corporate sustainable development, triple-bottom line, corporate ethics, corporate governance.
- UN Global Compact <https://www.unglobalcompact.org/what-is-gc/mission/principles>  
Corporate sustainability starts with a company's value system and a principles-based approach to doing business. This means operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption. => 10 Principles
- Triple Bottom Line  
=> [Coined by John Elkington in 1994](#): A bottom line that continues to measure profits, but also measures the organization's impact on people and on the planet. The triple bottom line is a way of expressing a company's impact and sustainability on both a local and a global scale.  
=> Quadruple Bottom Line => 5Ps: people, prosperity, planet, partnership and peace  
[https://www.unssc.org/sites/unssc.org/files/2030\\_agenda\\_for\\_sustainable\\_development\\_kcsd\\_primer\\_en.pdf](https://www.unssc.org/sites/unssc.org/files/2030_agenda_for_sustainable_development_kcsd_primer_en.pdf)
- 上市櫃公司企業永續發展  
=> [上市櫃公司永續發展路徑圖](#); [企業永續發展簡介](#)
- CSR Report and Corporate Sustainability Reporting  
=> Voluntary or Compulsory Information Disclosure  
=> [GRI Standard](#); [SASB Standards](#) => [IFRS Sustainability Disclosure Standards](#)  
=> [上市/上櫃公司編製與申報永續報告書作業辦法](#) (2022.09.26)  
=> 上市上櫃公司永續報告書確信機構管理要點(草案) => 永續指標 + 氣候相關資訊揭露  
=> Non-Financial Report > Environmental Report > Corporate Social Responsibility Report > Corporate Sustainability Reporting > ESG Reporting

## ● OTHER CONSIDERATIONS FOR CORPORATE GOVERNANCE

- Sustainable and Responsible Investment => Divestment  
=> Principle for Responsible Investment [PRI | Home \(unpri.org\)](#)  
=> Equator Principle [Equator Principles Association \(equator-principles.com\)](#)
- Climate-related Disclosure  
=> Task Force on Climate-related Financial Disclosures (<https://www.fsb-tcfd.org/>)  
=> CDP Carbon Disclosure Project (<http://www.cdp.net>)  
=> The Science Based Targets initiative (SBTi) (<https://sciencebasedtargets.org/>)  
[The SBTi's Net-Zero Standard](#)
- [Taskforce on Nature-related Financial Disclosures](#)
- Sustainable Classification and Green Taxonomy  
=> [SASB Sustainable Industry Classification System \(SICS\)](#)  
=> [EU Taxonomy for Sustainable Activities \(Green Taxonomy\)](#)

## ● CLIMATE RESILIENT DEVELOPMENT

- Raised by the [IPCC AR6 WGII Reports](#)  
=> Climate Change 2022: Impacts, Adaptation and Vulnerability  
=> Definition of Climate Resilient Development (CRD): A process of implementing greenhouse gas mitigation and adaptation options to support sustainable development for all.
- Key Concepts  
=> Scenario, Pathway (Roadmap); Transition vs. Transformation

# 從氣候風險延伸至氣候韌性發展的構想

## ➤ 氣候、生態系統（包括生物多樣性）、人類社會的耦合系統

(a) 主要的交互作用&趨勢



(b) 降低氣候風險並發展韌性的選項

