



# SDG 13: Climate Action



Climate change is one of the important topics concerning the world today. It is a challenge that countries have begun to address by setting plans, measures, and precautions to confront and manage the changes. In Saudi Arabia, through Vision 2030, we are committed to reducing carbon emissions, setting plans, and encouraging people to use renewable energy alternatives. The University of Tabuk has contributed to this effort through the contributions of the Renewable Energy and Environmental Technology Center.

### 13.1 Research on climate action

The University of Tabuk is actively contributing to global climate action efforts through cutting-edge research, focusing on renewable energy, carbon reduction, and sustainable technologies. Research initiatives align with the goals of SDG 13 by exploring innovative solutions to climate challenges. For example:

- **Tian, M.W., Abubakar, Z., Chauhan, B.S., Mahmoud, S., Lui, C. and Mansir, I.B., 2023.** Economic cost and performance analysis of a novel trigeneration scheme utilizing CO<sub>2</sub> capture and solid oxide electrolysis units. *Process Safety and Environmental Protection*, 175, pp.377-391.
- **Al-Shetwi, A.Q., Atawi, I.E., Abuelrub, A. and Hannan, M.A., 2023.** Techno-economic assessment and optimal design of hybrid power generation-based renewable energy systems. *Technology in Society*, 75, p.102352.
- **Althobaiti, Z.F. and Shabri, A., 2023,** February. Prediction of CO<sub>2</sub> emissions in Saudi Arabia using genetic algorithms based on Grey Model GM (1, 1). In *AIP Conference Proceedings (Vol. 2500, No. 1)*. AIP Publishing.

### 13.3 Environmental education measures

#### 13.3.1 Local education programmes on climate

The University of Tabuk actively engages in providing local education programs and campaigns that address climate change risks, impacts, and mitigation strategies, as well as adaptation, impact reduction, and

early warning systems. One notable example is the university's collaboration with the General Authority of Meteorology and Environmental Protection, a partnership aimed at promoting environmental awareness and action. Additionally, the university offers a Higher Diploma in Environmental Science with a focus on the environmental sustainability path, equipping students with the knowledge and skills to address pressing environmental challenges. Moreover, the university hosts events and seminars that foster community engagement and raise awareness of climate change and its impacts. Through these educational initiatives, the University of Tabuk plays a crucial role in enhancing local capacity to respond to the challenges posed by climate change.

#### Collaboration between the University of Tabuk and the General Authority of Meteorology and Environmental Protection (Page 8)

<https://www.ut.edu.sa/ar/administration/vrgssr/Partnerships-and-International/Documents/Partnership%20Agreements%202.pdf>

#### Higher diploma in environmental science- environmental sustainability path

<https://www.ut.edu.sa/ar/Faculties/science/Biology-section/Pages/NewsDetails.aspx?NewsID=6>



## الدبلوم العالي في العلوم البيئية مسار الاستدامة البيئية

Higher Diploma in Environmental Sciences  
Environmental Sustainability Path

قسم الأحياء - كلية العلوم بجامعة تبوك

Department of Biology - Faculty of Science, University of Tabuk

## Events:

[https://twitter.com/event\\_ut/status/1724304926912745592](https://twitter.com/event_ut/status/1724304926912745592)

[https://twitter.com/dsa\\_ut/status/1748015542638620906](https://twitter.com/dsa_ut/status/1748015542638620906)

### 13.3.2 Climate Action Plan, shared

The University of Tabuk has developed a Climate Action Plan that outlines its commitment to addressing climate change and promoting sustainability. This plan emphasizes collaboration in reducing carbon emissions, promoting renewable energy, and enhancing environmental sustainability within the region. It details various strategies aimed at mitigating the university's environmental impact while also engaging the broader community in climate action efforts.

<https://www.ut.edu.sa/ar/qs-sustainability/Pages/default.aspx>

### 13.3.3 Co-operative planning for climate change

The University of Tabuk collaborates with the General Authority of Meteorology and Environmental Protection to work together on addressing climate change issues.

#### Collaboration between the University of Tabuk and the General Authority of Meteorology and Environmental Protection (page 28)

<https://www.ut.edu.sa/ar/administration/vrgssr/Partnerships-and-International/Documents/Partnership%20Agreements%202.pdf>

The image shows two promotional posters for climate action events at the University of Tabuk. The left poster is titled "العمر المناخي" (The Climate Action Plan) and is presented by "أ.أ. فرحان العنزي" (Prof. A. Farhan Al-Anzi). It details the event's date as Friday, 1445/7/7 H, from 4:00 PM to 6:00 PM, and the location as the Faculty of Sciences, Kofu Shaibneh Hall. The right poster is titled "التعاون بين جامعة تبوك ومن خلال وكالة الجامعة والمركز الوطني للأرصاد" (Cooperation between the University of Tabuk and the National Center for Environmental and Meteorological Studies). It also details the event's date as Friday, 1445/7/7 H, from 4:00 PM to 6:00 PM, and the location as the Faculty of Sciences, Kofu Shaibneh Hall. Both posters feature logos of ISO, the University of Tabuk, and the National Center for Environmental and Meteorological Studies.