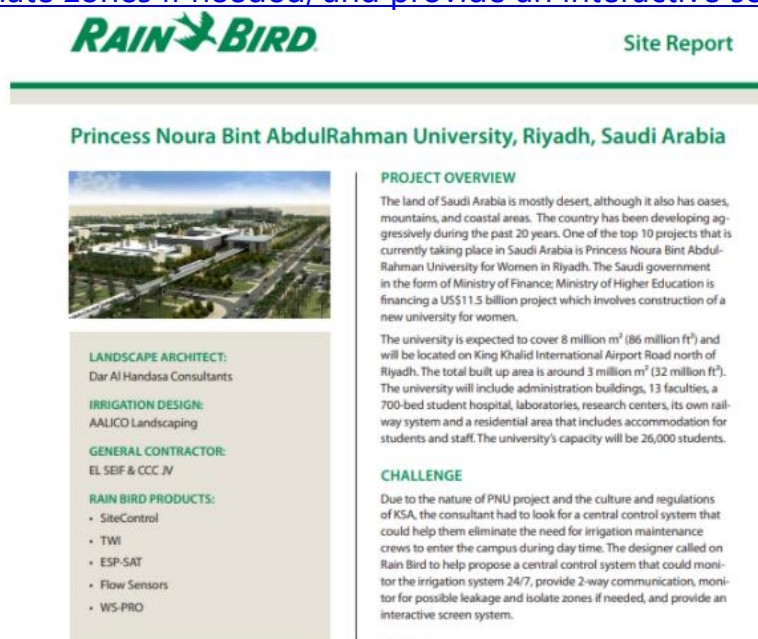


# WATER STATION AT PRINCESS NOURAH BINT ABDULRAHMAN UNIVERSITY

The Princess Nourah Bint Abdulrahman University has built its own water station inside the college city by the help of Rain Bird project, it was a challenge due to the nature of PNU project and the culture and regulations of KSA, the consultant had to look for a central control system that could help them eliminate the need for irrigation maintenance crews to enter the campus during day time. The designer called on Rain Bird to help propose a central control system that could monitor the irrigation system 24/7, provide 2-way communication, monitor for possible leakage and isolate zones if needed, and provide an interactive screen system.



Figure(1)

Princess Nourah University implements three environmental awareness campaigns relative to the sustainable development objectives

In view of the role of Princess Nourah bint Abdulrahman University in achieving environmental sustainability, and its belief in the importance of active students' participation in various international forums and events related to the environment. The Department of Biology and the Community Service Unit at the College of Science have recently organized three environmental community awareness campaigns with slogans linked to the thirteenth objectives of private sustainable development in the climate, and the fifteenth of life on the land. In the presence of the head of the Biology Department, Dr. Laila Al-Shuraim, the college's vice-rector, as well as several faculty members, administrative staff and the students.

As coordination and cooperation has been made with the General Department of Parks and Community Service in the Secretariat of the City of Riyadh to obtain various types of different annual flowering seedlings, cacti, perennial outdoor plants, and small trees to be cultivated by approximately (90) students among the fourth level students in the Biology Department within two weeks at a rate of one hour per day, under the supervision of Dr. Arwa Abdul Karim Al-Hukail.

This comes in line with the Kingdom's strategies towards the environment and the restoration of vegetation in Riyadh to reduce the damages related to drought and its negative effects, as an influential environmental mission and social responsibility to activate the role of students in society inside and outside the college and university. In addition to contributing to raising awareness and environmental sense with a number of Applied Ecology issues.

On the other hand, and to achieve the quality of educational outputs, in line with the achievement of the Kingdom's Vision 2030, the initiative has been taken to host (14) third-graders (American Diploma) students from Riyadh Najd Private Schools to attend the various campaigns and events and participate in applied activities such as afforestation. In order to increase the green areas inside the college and educate them about home gardening methods in addition to a scientific tour to learn about the laboratories of the Department of Biology and the herbal plants in the college.

The awareness campaigns varied to include the introduction of the World Day to Combat Desertification and Drought under the slogan (Vision is affiliation to achieve development), the introduction of the International

Day for Biological Diversity, whose campaign was called (Our Vision 2030 Saves Our Environment). As well as the introduction of the International Day for Preserving the Ozone Layer and shedding light on the resulting global climate change and global warming under the slogan (Vision 2030 protects the environment).

The event was accompanied by three corners of environmental issues for the three campaigns to cover them from various aspects and link their issues to each other and to clarify the risk of continuing to pollute the environment with different pollutants. Several visual presentations, which have been designed and prepared by students, were presented. In addition to reviewing some international efforts and the Kingdom's efforts specifically the directives included in the Vision 2030 for environmental protection.

This came within the framework of promoting the principle of rationalization, reducing consumption and waste in natural resources, preserving biological diversity. As well as protecting it through nature reserves, sustainable development for it, preserving it, and directing renewable (clean and safe) energy such as solar energy, wind energy, etc. as a safe and clean alternative that protects and preserves the environment and contributes to reducing the breadth of the Ozone (O<sub>3</sub>) layer hole.

The campaigns also presented recommendations and proposed solutions to contribute to limiting the exacerbation of these problems and controlling them and explaining some positive applied mechanisms to protect the environment. These recommendations emphasized the importance of solidarity and effective participation in eliminating pollution by limiting the use of all kinds of plastics, and the need to move to the use of safe alternatives as biodegradable plastics alternatives. As well as the possibility of using some insect repellent plants, especially in house rooms, as an alternative to the use of chemical pesticides. In addition to urging the rationalization of electricity and water consumption and preventing logging, and encouraging the participation of students in planning and implementing organized campaigns, including some positive activities and events, and developing a high sense of responsibility towards public property and cleanliness of the environment within university and college facilities.

[Recycling Program for University Waste](#)

Recycling programs, policy and posters encouraging staff and students to recycle waste. Program to reduce the use of paper and plastic in Campus. The recommendations emphasized the importance of effective and supportive participation in the elimination of contamination by limiting the use of all types of plastics, and the need to move to the use of safe alternatives such as biodegradable plastics alternatives.



Figure(2)



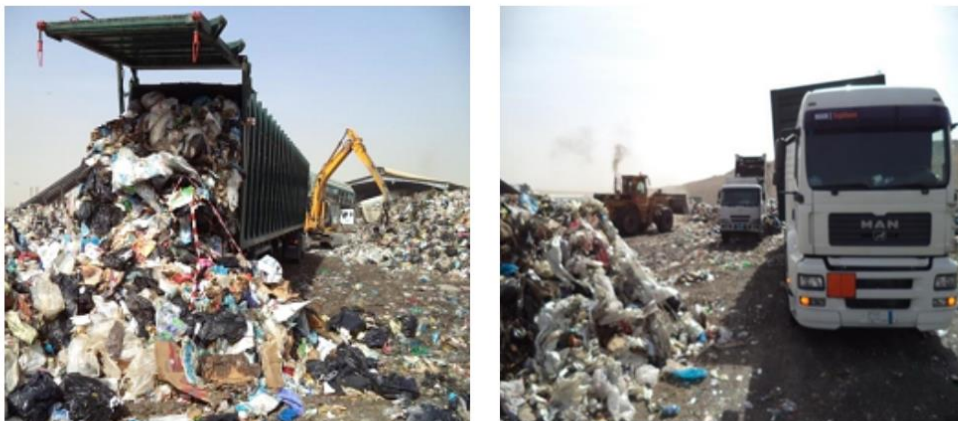
Figure(3)



Figure(4). Brochures posted related to a two awareness programs prepared to encourage student and staff to reduce the use of paper and plastic.

## Organic Waste Treatment

Organic waste such as food waste, vegetables, fruits, etc. they are largely part of the daily garbage. Therefore, it requires a different care and handling than other types of waste. Extensive (> 75% treated and recycled)



Figure(5).Open dumping of general waste in Al Sulay Landfill in Riyadh

Princess Nourah University has generated garbage separation policies. For this purpose, it has deployed containers in all university facilities that indicate what type of garbage to deposit and has conducted awareness campaigns about the importance of garbage separation. Furthermore, organic waste is not delivered to the collection service, it remains at the university in order to reuse organic waste as compost in gardens.



Figure(6).Organic waste Compost

Figure(6).Organic waste Compost

## [Inorganic Waste Treatment](#)

Princess Nourah University has launched a campaign aimed at the university community, which seeks to reduce single-use plastic products and disposable products.

Single-use plastic products cause excessive waste, there is a preference for products with reusable materials.

Furthermore, Princess Nourah University has generated garbage separation policies. For this purpose, it has deployed containers in all university facilities that indicate what type of garbage to deposit and has conducted awareness campaigns about the importance of garbage separation. Partial (> 25% - 75% treated).



Figure(7)

## Toxic waste treatment

Princess Nourah University has established policies for the management of toxic waste product of different activities carried out in the laboratories.

Laboratory testing procedures produce a lot of waste, these wastes are risk factors that must be managed systematically to avoid spills of chemicals and their spread outside the laboratory.

Extensive (> 75% treated and recycled)

All healthcare waste which include (infectious waste, highly infetious waste , sharp waste, pathological and body parts waste as well as chemical waste) treated on daily waste with 100% capacity.





**شهادة إنجاز**

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التاريخ: 09/09/2014

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بالتوقيع: 0001/14/14  
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مديرنا للمبيعات:   
شركة إنا الطبية الطبية

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