



Bahrain Regains Greenery

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At the beginning of the year the project „Bahrain Regains Greenery“ has started. The aim of this project is to develop new ideas and possibilities about how to green the roofs of private and public buildings and how to enrich the quality of life within the Kingdom of Bahrain. The project is divided in two subprojects: irrigation possibilities and effects of green roofs.

Irrigation possibilities:

Green roofs can be irrigated by various methods, e.g. using rain water or the building's water feeding system. Moreover, grey water produced from air conditioning units, as a result of de-humidification, can be used in irrigation after passing through a simple treatment process.

Effects of green roofs:

Food security; growing certain types of fruits and vegetables on roofs can fulfill the daily needs of a family for food, which, on the long term, will contribute to achieve food security for the whole country.

Positive climatic effects; green roofs have a cooling effect. They could reduce the inner city temperature and the micro climate of the building is noticeably upgraded.

Heat and noise insulation; green roofs protect against storms, ray influences, heat and cold. They increase the thermal insulation and help to reduce up to 10% energy consumption. Also a noise insulation of up to 8 dB (A) is possible.

Reduction of dust; compared with conventional roofs, the surface area of planted roofs is much bigger. The airflow is slowed down and up to 20% of dust and other air pollutants are filtered by vegetation. Furthermore, deposited nutrients could be reused directly by plants.

Environment for plants, animals and humans; animals and plants can find a biotope within a city of buildings with green roofs on in areas of high biodiversity. Also roof gardens offer a convenient space to be used for activities by the urban population such as cafes or playgrounds.