

## **Press Release of August 25<sup>th</sup>, 2021**

**The National Council for Scientific Research-Lebanon (CNRS-L) Deploys the First Anchored Marine Laboratory Buoy in the Lebanese Sea.**

Experts of the National Centre for Marine Sciences of the National Council for Scientific Research – Lebanon (NCMS-CNRS-L), the team working on the CANA-CNRS Research Vessel, in very close cooperation with the International Union for Conservation of Nature (IUCN), and with logistical support from the Lebanese Naval Forces, deployed the first anchored off-shore marine laboratory buoy (Smart Buoy) in Lebanon on August 14, 2021.

Funded by the Royal Norwegian Embassy in Beirut, through the Coastal Ecosystem Resilience project of IUCN ROWA; the buoy will enable, for the first time in the country, to monitor real-time oceanographic data and scale up marine conservation efforts in Lebanon.

Located 1.4 km offshore Beirut, the buoy is equipped with sensors providing information on multiple sea water parameters, such as temperature and salinity, turbidity, pH, CO<sub>2</sub>, dissolved oxygen and chlorophyll levels. It also features a full weather station, and an immersed instrument for measurements of currents and waves, collecting continuously essential data over time. The scientific management of the buoy is ensured by the CNRS-L and its scientific team.

The unit can serve as an early warning monitor of coastal environmental events such as sea level rise, sudden shifts in sea surface temperature, and tsunamis. Moreover, the smart buoy contributes to monitoring the impact of climate change trends such as fossil pollution, the increase of CO<sub>2</sub> levels in air and sea, sea water acidification. Their direct impact on fisheries, biodiversity, coastal environments and coastal communities is subsequently evaluated.

The data collected will support CNRS-L collaborative marine projects and foster cooperation with donor institutions, especially IUCN, the Norwegian Embassy and other international partners through expanding the network, the number of buoys deployed facing major coastal cities in the country, and supporting projects for the protection and sustainability of the Mediterranean Basin. The data will also be relayed to decision makers to help in better policy planning and strengthen cooperation within relevant scientific networks.

Investment in innovation and support of the knowledge economy of Lebanon need to be maintained and strengthened, not despite of, - but especially in light of the current crises the country is facing. The unit will bring important knowledge to understand the hydrodynamics and other parameters directly affecting the marine ecosystem in Lebanon and contribute to the preservation of the marine environment as an essential element in the sustainable development of the country.