Visible Infrared Imaging Radiometer Suite (VIIRS) Night Light Boat Detection in Municipal Waters and Seasonal Fishery Closures as a Tool for Combatting Illegal Fishing & Protecting Marine Biodiversity*

Under the BFAR-USAID-NOAA partnership, the VIIRS night light boat detection (VBD) is in place for BFAR’s four seasonal fishery closures and two LGU-led seasonal closures, for the municipal waters around the country, and for the NIPAS marine protected areas. VBD may also be used for Exclusive Economic Zone transgressions and identification of boats lacking VMS.

The primary mission of VIIRS, a sensor developed and operated by US NOAA and US NASA, is for weather; and is now being used for other applications, including for fisheries to detect fishing boats that use night lights for fishing, usually purse seiners and ring nets, with more than 1000 watts. In the Philippines, since October 2015, alert services are set up for the Zamboanga, Palawan, Visayan Sea and Davao Gulf Fish Closures and subsequently in 2017, for the seasonal closures of the Province of Batangas and Mindoro Oriental. Alert services are set up for municipal waters all throughout the country, based on NAMRIA’s preliminary delineation.

Daily alerts in email, SMS and messaging app Telegram are received from US NOAA by BFAR Central and Regional Offices, National Coast Watch, interested LGUs and the DENR-BMB-CMD to inform enforcement planning, compliance monitoring and evaluation of enforcement actions or management strategies. Daily outputs, monthly and annual summaries of these VIIRS detections in the Philippines since April 2012 are also available at the NOAA website: https://www.ngdc.noaa.gov/eog/viirs/download_boat.html

*Developed by the NOAA Earth Observation Group (Contact: Dr. Christopher Elvidge, chris.elvidge@noaa.gov) for in coordination with the Bureau of Fisheries and Aquatic Resources (Contact: FPLEG, BFAR Central Office, Tel. No. 02-332-4672) with support from USAID/Philippines
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Since November 1989, seasonal fishery closures are implemented in the Visayan Sea to protect the spawning seasons of sardines, herring and mackerel. The Visayan Sea covers the 5 provinces of Iloilo, Capiz, Cebu, Negros Occidental and Masbate, and 31 component coastal cities and municipalities.

VIIRS Boat Detection during Closed Season compared to Non-Closure Season in the Visayan Sea November 15-February 15

VIIRS Boat Detections inside Municipal Waters of the Visayan Sea 2012-2017

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