

# India

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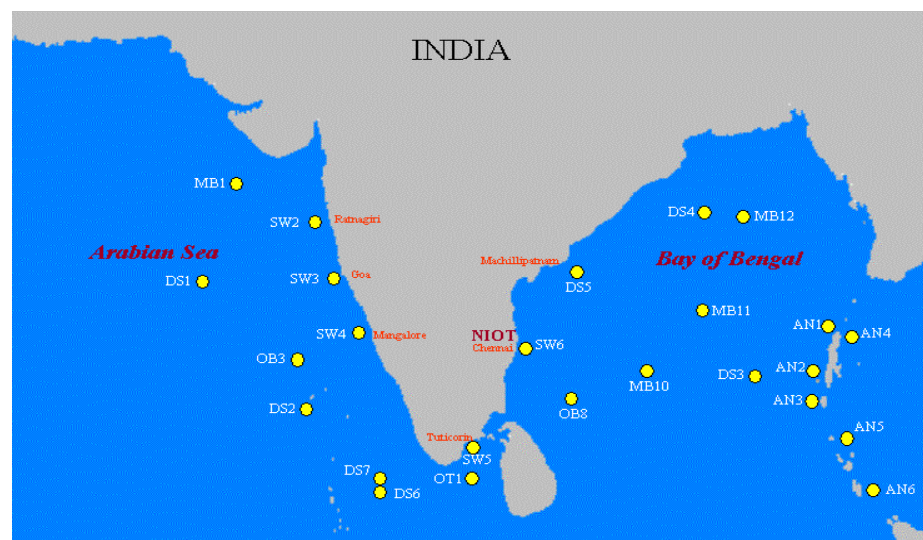
## Summary of operational and planned GOOS participation

### Observations

### Comments

Surface Drifter 10 active and on GTS February 2010

Moorings



Indian Coastal and Deep sea moorings providing  
Waves AP, AP, SST, SSS, Surface Currents.  
AP, SST, AT, wind, waves in real-time via GTS.  
To see present Buoy status go to <http://www.niot.res.in>

Equatorial current meter moorings: deployed at 93E, 83E and 76/77E.  
RCMs at 100, 300, 500, 1000, 2000 and 4000m  
[http://www.nio.org/data\\_info/deep-sea\\_mooring/oos-deep-sea-currentmeter-moorings.htm](http://www.nio.org/data_info/deep-sea_mooring/oos-deep-sea-currentmeter-moorings.htm)

OceanSITES <http://www.oceansites.org/network/index.html>

2 Moorings reporting via GTS February 2010. In addition, 10 USA/India moorings are operational. The USA/India program includes 4 surface moorings, 2 flux reference sites and 2 ADCP moorings deployed near the equator at 80-95E. 2 additional ADCP moorings planned for deployment. <http://www.pmel.noaa.gov/tao/disdeld/disdeld.html> and select RAMA

XCTD/XBT/TSG	Three lines: Chennai-Port Blair-Calcutta; Chennai-Singapore; and Mumbai-Mauritius. Bi-monthly.
ARGO	79 active February 2009. <a href="http://www.incois.gov.in/Incois/argo/argo_National_Centre.jsp#">http://www.incois.gov.in/Incois/argo/argo_National_Centre.jsp#</a>
Sea Level	5 GLOSS MSL stations, most recent data posted by PSMSL 2006.  SELMAM Project: 10 “modern” (8 new) sites have been established. One GLOSS site included in the 10 – Visakhapatnam  2 GPS positioned stations, one (Vishkhapatmam) is GLOSS <a href="http://www.sonel.org/spip.php?page=cgps">http://www.sonel.org/spip.php?page=cgps</a>
Bio/Chem	Chlororophyll, radioactivity, turbidity, hydrocarbons, nutrients. Dissolved oxygen measured on some moorings above. see coastal below
Carbon	GOA time series, 2003-2012, 15N-72E, monthly East Indian Coast Time Series, 2007-2012, 15-20N, 80-85E Seasonal. Bay of Bengal, 2008-2013(proposed) 20N, 90E, seasonal
Satellite	OCEANSAT-1, IRS-P4 1999-2005, Color/biology and SST OCEANSAT-2 (OCM – ocean color, Scat), ROSA (Radio-occultation) Scatterometer – launched 9/2009. <a href="http://www.isro.org/satellites/oceansat-2.aspx">http://www.isro.org/satellites/oceansat-2.aspx</a>  INSAT-3A operational since 2003. INSAT-3D planned 2010, improved 6 Channel Imager and 19 Channel Sounder.  KALPANA-1 (Formerly METSAT), SST <a href="http://www.imd.gov.in/section/satmet/dynamic/daily_sst.htm">http://www.imd.gov.in/section/satmet/dynamic/daily_sst.htm</a>
Sea Ice	Annual Antarctic cruises since 1980
VOS	47 VOS and 22 VOSclim ships active 1 March 2010. <a href="http://www.ncdc.noaa.gov/oa/climate/vosclim/vosclim.html">http://www.ncdc.noaa.gov/oa/climate/vosclim/vosclim.html</a>
Coastal	COMAPS (monitoring health of coastal waters) – 80 sites, 25 biological and chemical parameters. ICMAM – Integrated Coastal Marine Area Management program has monitored coral (Andaman) and shoreline changes at Ennore, Gahirmatha and along the coast of Kerala. SeagrassNet project at Andaman Is.

<http://www.seagrassnet.org/index.html>