## CONVERSION TO LIQUIFIED NATURAL GAS (LNG) IN THE MARINE SECTOR

The potential of using Liquefied Natural Gas (LNG) as an alternate fuel for fishing can reduce the cost of fishing operation and it is relatively cheaper and available in Kerala since LNG Terminal is established in Kochi.

A shift from the use of diesel and kerosene in fishing boats to LNG may bring substantial savings in fuel costs. Thereby it provides immense scope for socioeconomic development and growth of the fishing sector in Kerala. It will also enhance the income of poor households entirely dependent on the fishing sector. In addition to increasing the competitiveness of the sector, LNG is also seen as the cleanest fossil fuel, paving the way for significant environmental benefits.





## **PROJECTS**

Kerala Development and Innovation Strategic Council (KDISC) in partnership with the Department of Fisheries and Port, Mathsyafed and PetronetLNG Pvt Ltd is piloting two projects to initiate the conversion to LNG fuel in the marine sector.

- Conversion to LNG fuel in larger marine vessels (mechanised)
- Conversion to LNG fuels for marine vessels using Out-Board Motors (OBMs)

The technical support for the projects is given by the Central Institute of Fisheries Technology (CIFT) and the Central Institute of Fisheries Nautical and Engineering Training (CIFNET).

## CONVERSION TO LNG FUEL IN LARGER MARINE ENGINES (325BHP)

This pilot in connection with Jio Lat is to retrofit an existing 325 bhp marine diesel engine system operating on diesel fuel to enable it to operate on dual fuel (LNG + Diesel).

In the pilot, the LNG fuel storage tank and other associated equipment and pipelines in the existing 325 bhp fishing line are installed. Modification in the boat hull to accommodate LNG tanks, pipelines, and other associated equipment's etc. is done for the same in a vessel rendered by CIFT.







## CONVERSION TO LNG FUEL IN OUTBOARD MOTORS

There are about 25,000 boats that are currently running on 6-8 HP outboard motors (OBM) typically with Spark ignition 2-stroke technology, which are started by using Petrol and run by Kerosene. These are the fisherfolk most affected by the burden of fuel costs. K-DISC was most interested in finding innovative means of helping them through the replacement of traditional fuels with LNG.

The main objective is to retrofit and modify the existing engine with an LNG Fuel Conversion Kit. KDISC is piloting this research project with Atlantic Gulf and Pacific (AG&P) and Gas Entec Co. Ltd.