

Study of CRAIN Energy Ltd Plantation Activities in district of Andhra Pradesh for Clean Development Mechanism

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Private sector enterprises are playing a key role in implementing the CDM. It is becoming evident that both the impacts from a changing climate and the measures needed to reverse it, have the potential to affect the way business is done in virtually every sector of the economy. Projects are likely to be selected primarily on considerations of financial returns and on alignment with existing business activities. For this reason, forestry activities may be relatively unpopular. In contrast, a few companies may see potential gains in terms of corporate reputation by investing in socially responsible forestry projects. The company Cairn Energy Plc is an independent Edinburgh based oil and gas exploration and Production Company, operating in India for the last eight years. The objective of the study was to measure carbon stock of the current period so that Cairn Energy Ltd can decide whether it will be profitable for it to carry out the CDM and what are the steps they would take to step further in this field. So here the general process defined by IPCC for LULUCF sector was not undertaken while plantation was carried out.

The on-shore plantation of Casuarina is spread in an area of 40 hectares. It covers an area along the coast of the Bay of Bengal, which is seven kilometers from the RAVVA Plant area. There is only one species i.e. *Casuarina equisetifolia* planted. The plantation inside is done along the road and in open space. It stretches along the side of the road of oil plant area. Total 12 species were planted inside the area. It was found that for onshore plantation (casuarinas) biomass is 394.8103803 t/ha. The total standing biomass of on-shore plantation of Casuarina is 7.003997t/ha. The carbon sequestered in this area is 3.151799t/ha. The carbon sequestered inside the Plant area 1346.029 tones.

Regarding the second objective, overall impression shows that only salt tolerant species like *Peltophoron*, *Pongamia*, *Thespesia*, and *Eucalyptus* can come up. Very high salt resistant species like Halophytes can thrive. Mangrove plantation can be recommended on the area surrounding

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the plant. Here, most of the work has already been done and most of the species, which are salt resistant and suitable for the area, is already there. Cairn's energy initiative is appreciable in the field of climate change but a lot more has to be done if they want to carry out seriously. Many projects have been done in India but they are either forest or agro forestry based or reduction in carbon emissions. So this project is unique in its kind as Cairn Energy, which is an oil company, wants to do plantation voluntarily to carry out CDM.