IMPACT OF THE TROPICAL CYCLONE OCKHI ON RUBBER CULTIVATION IN KANYAKUMARI AND VULNERABILITY OF RUBBER PLANTATIONS IN CYCLONE PRONE AREAS

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Tropical cyclone Ockhi that came close to Kanyakumari district in Tamil Nadu state of India on 30 November 2017 destroyed close to half a millioin rubber trees in the district even though the eye of the storm did not make a landfall there. The scale of the destruction was unpercedented in the nealy 120 year history of rubber cultivation in India. More than 900 smallholdings lost about 1,78,000 trees and the large estates in the district lost another 2,83,000 rubber trees. The affected smallholdings lost an average of 61 per cent of the trees. A few medium sized estates also lost more than 50 per cent of the trees. More than 95 per cent of the loss was due to uprooting. Mature and yielding trees and trees planted in lowlying fields were more vulnerable to uprooting. No loss of trees was reported from adjacent Kerala, except for some loss in Punalur region, about 100 kms North of the most affecetd areas in Kanyakumari district. Potential threats to rubber cultivation in India and other countries from severe tropical cyclones in the context of global warming are also discussed.

Key words: Global warming, Kanyakumari, Ockhi, Rubber cultivation, Tropical cyclone

INTRODUCTION

Kanyakumari is a traditional rubber growing region in South Western India where productivity is very high. The district has not experienced any major tropical cyclones until a severe tropical cyclone, Ockhi came close to and on 30 November 2017. Several non-traditional rubber growing tracts along the Eastern coast and North Eastern Region of India has witnessed far more number of tropical storms than the Western coast of India where most of the rubber plantations exist. Studies show that continued warming of the oceans due to global warming may lead to more violent tropical storms in the Eastern Indian coast and many parts of the Asia-Pacific regions (Shenoi *et al.*, 2014, Mei and Xie, 2016; IPCC, 2014; Knutson *et al.*, 2010; Mendelsohn *et al.*, 2012) which produce more than 90 per cent of global supply of natural rubber. Rubber being a perennial tree crop with an economic life of nearly 30 years, it is not feasible to replant if the plantations are destroyed by frequent cyclones. There are no clones that can survive heavy wind lash. Neither can windbelts protect rubber trees from severe storms. There has

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