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TECHNO-ECONOMICS OF WORLD RUBBER SUPPLY & DEMAND— IMPACT OF NEW TECHNOLOGIES AND THE CIRCULAR ECONOMY

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ABSTRACT

Mention of techno-economics of rubber inevitably invoke the idea of NR vs SR competition. The 1960s and 1970s saw rapid erosion of market share of NR due to availability of cheap feedstock for synthetic rubbers. The oil crises of the early 1970s and later in the 1980s, led by a cartel of oil producing countries called OPEC, raised oil prices many-fold and spelt the end of cheap oil. Together with technical improvements to NR planting and supply, including introduction of high yielding clones of Hevea and technically specified rubber (TSR), Malaysia, then the #1 producer, started a fight-back by the NR industry to regain market share.

NR market share has since gone up and is now almost at parity with SR. This was attributed to 4 major factors: (1) rise of radial tires (which technically required more NR), (2) tire labelling, (3) climate change resulting in carbon footprint reporting and (4) the green revolution and circular economy. Rise of the East and the tectonic shift of rubber supply, NR as well as SR, and consumption to China and Asia has led to prediction by some pundits of impending rubber shortage. This may or may not happen because of impact of new technologies, especially the mobility revolution and improvements in tire manufacture. This talk will explain why there may not be supply shortage of NR, and why demand growth will slow because of new technologies and the circular economy.