Council of Scientific & Industrial Research

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Press Release

CSIR Empowering the Farmers

CSIR-CMERI developed small range tractor, *KrishiShakti* launched by Hon'ble Minister, Science and Technology and Earth Sciences and VP, CSIR, Dr. Harsh Vardhan

New Delhi, 20 November 2014. As a new leaf in the CSIR efforts to empower the Indian farmers, KrishiShakti – a small range (11.2 hp) diesel engine tractor designed and developed by CSIR-Central Mechanical Engineering Research Institute, Durgapur, one of the constituent laboratories of CSIR was launched today by Hon'ble Minister, Science and Technology and Earth Sciences and VP, CSIR, Dr. Harsh Vardhan. He handed over five tractors to the farmers. The KrishShakti would benefit Indian farmers possessing small land holdings.

Dr. Harsh Vardhan, while launching the KrishiShakti said that "the development has bridged a long felt technology gap. There is an urgent need to develop state-of-the-art technology of agriculture implements. The implements need to be suiting Indian agro climates and should be energy efficient. These agriculture implements should remove farmer's drudgery". Dr. Harsh Vardhan appreciated CSIR efforts contributing for 'Make in India' mission of Hon'ble Prime Minister.

The KrishiShakti has received *CMVR Certification* as an *Agricultural Wheeled Tractor* after rigorous trials and testing. The Technology of *KrishiShakti* was transferred to M/s Singha Components Pvt. Ltd., Howrah, West Bengal, who have started manufacturing.

In India, about 85 percent households cultivate about 36 per cent of entire cultivable land. The average land holding of the small Indian farmer normally does not exceed even 1 hectare. It is therefore quite difficult for the average Indian farmer to afford mechanized farming utilizing standard tractors of 35 hp and above ratings, which in

turn tells upon the productivity and per unit yield. As a result, there has been tremendous demand for developing small, compact and easily maneuverable tractors of rating in the range of 10-12 hp, which are deemed fittest for small and fragmented land holdings.

CSIR's *KrishiShakti*, a small tractor, is an apt CSIR response to this necessity enabling farm mechanization in an affordable manner. Furthermore, this small tractor and its matching implements are based on available diesel engine and available tractor parts in the market.

In 1970s, with the onset of Green Revolution, the fledgling nation needed both manpower and machines for the agricultural sector. CSIR made an impressive debut with SWARAJ, a 20 hp tractor. The knowhow of SWARAJ was released to Punjab Tractors Ltd., Chandigarh who has been successfully manufacturing and selling it since 1974. The SWARAJ tractor helped usher in mechanized agriculture. Today, nearly one million SWARAJ tractors till the Indian soil.

Later on, CSIR developed SONALIKA, a 35 hp tractor for medium and large land holdings. The knowhow of SONALIKA was released to M/s International Tractors Ltd., Hoshiarpur, who has been successfully manufacturing and selling it since 2002.

KrishiShakti is the latest in the legacy of CSIR interventions in enabling mechanized agriculture.









