

Examples of Initiatives to Ensure Environment-friendliness

Initiatives to Ensure Environment-friendliness in Combine Harvesters

Combine harvesters are farming machinery to harvest crops such as rice or wheat. Catering to customer requirements, the Kubota Group develops various combine harvesters suited to different crop and regional characteristics.

■ Conserve Resources over Product Life Cycle with DC-70G Combine Harvester

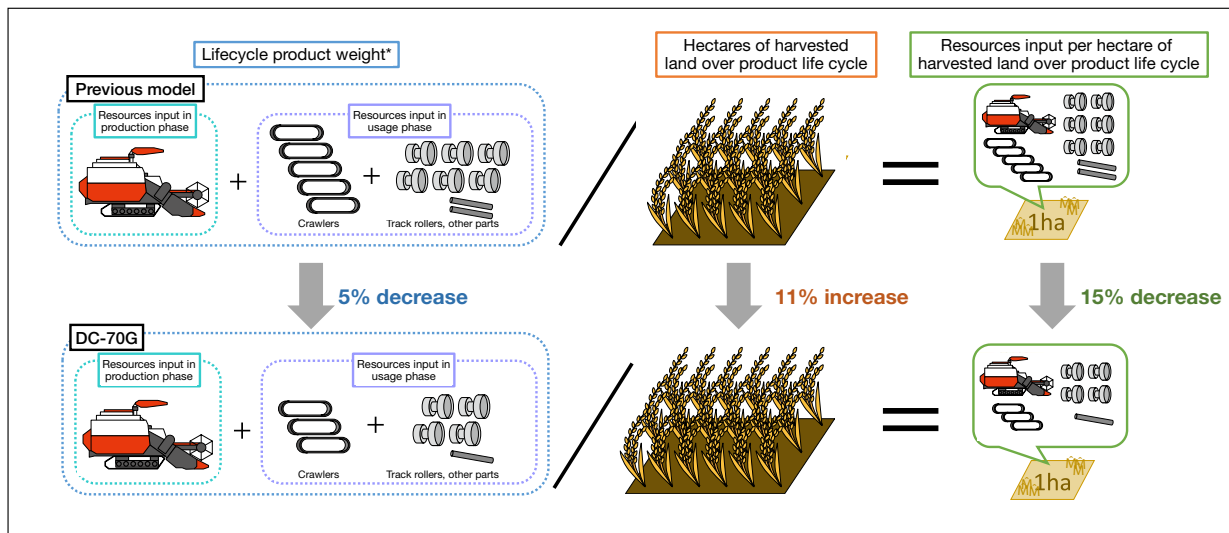
With the DC-70G combine harvester aimed at Southeast Asia and other developing countries, the durability of major parts has been enhanced to cut replacement frequency in the usage phase. Other improvements help to increase the potential acreage harvested per hour by increasing harvesting efficiency.

Over the combine harvester product lifecycle from machine production to customer usage and end-of-life disposal, these improvements contribute to conservation of resources by reducing the amount of materials required per hectare of harvested land by approximately 15% compared with the previous model (DC-68G).



Combine harvester DC-70G

Resources Input per Hectare of Harvested Land Over Product Life Cycle and Comparison with Previous Model



* Lifecycle product weight is defined as the total weight of the combine harvester and all the major replacement parts needed during usage

[1] Improvement of Durability on Major Replacement Parts

More durable major replacement parts such as crawlers and track rollers cut the replacement frequency, reducing lifecycle product weight by 5%. This approach also reduced the parts purchase cost and replacement work time.

Major Replacement Parts with Improved Durability

Major replacement parts	Extend product life (compared to the previous model)	Development points
Crawler	Approx. 1.5 times	Less contact pressure with track rollers, thicker design, etc.
Track roller	Approx. 1.3 times	Less contact pressure with crawler, thicker design, introducing heat-processing, etc.



Crawler



Track roller

Diagram of Lower Replacement Frequency

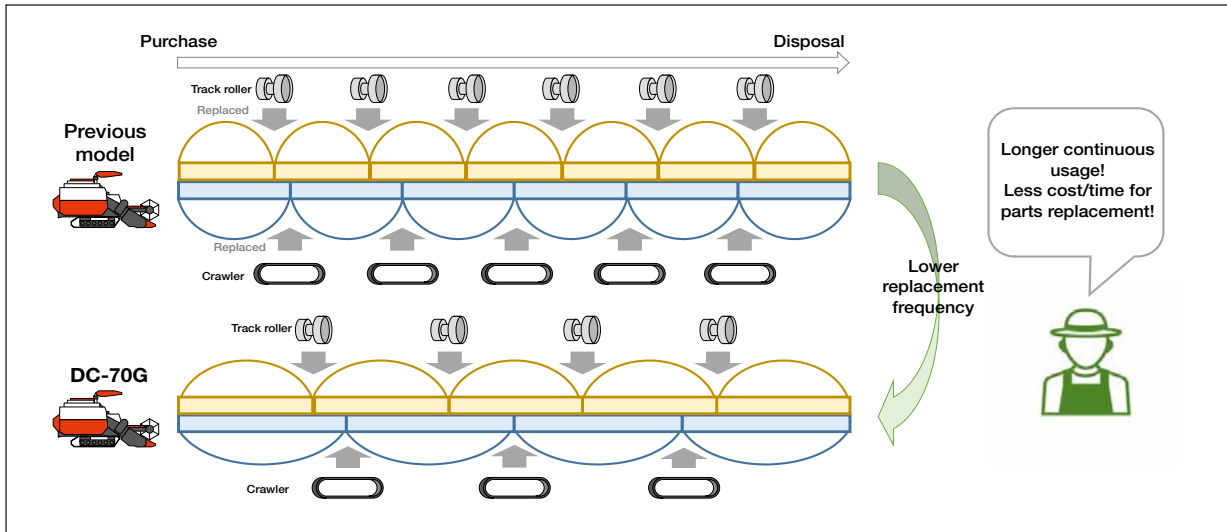
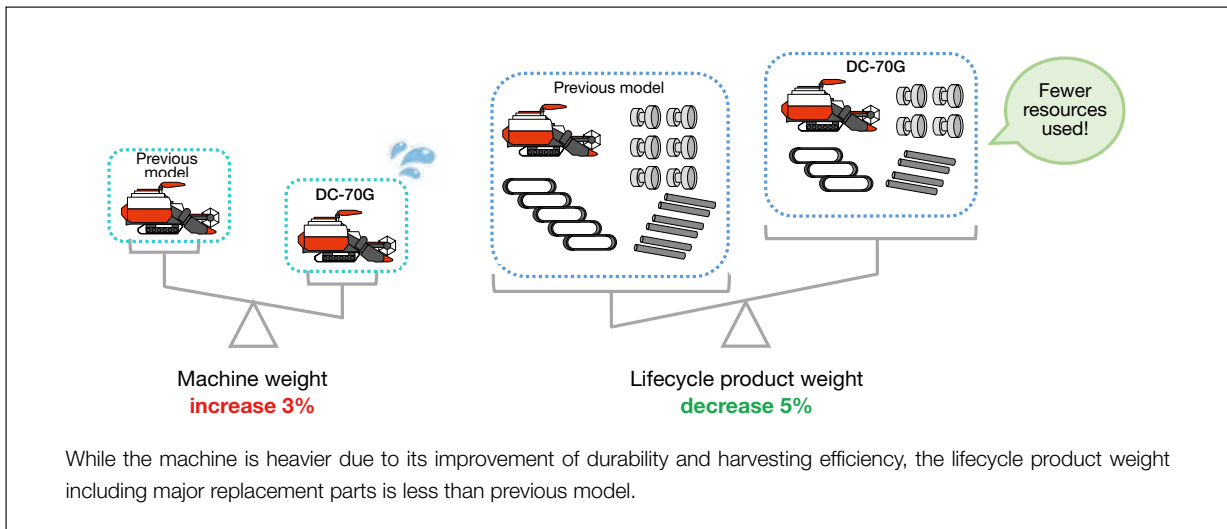


Diagram of Lower Lifecycle Product Weight



[2] Improvement of Harvesting Efficiency

Harvesting operations are more efficient, with a broadened cutting width and enlarged grain tank enabling harvesting of more hectares per hour. The fuel consumption is reduced to the conventional level.

Main Improvements to Increase Harvesting Efficiency

Improved point	Compared to the previous model	Effect on harvesting efficiency
Cutting width	3.8% wider	The 2,075-mm cutting width can harvest 3.8% more at the same machine speed
Grain tank (storage tank for harvested grain)	70% bigger	The frequency of emptying* harvested grain is reduced, and long continuous work is possible

* Emptying a full grain tank generally means stopping harvesting operations and moving the combine harvester to a footpath to empty the tank.

