

# Golden Rice

April 27, 2020

**Context:** Bangladesh could become the first country to approve golden rice

- Rice is naturally low in the pigment beta-carotene, which the body uses to make Vitamin A. Golden rice is the collective name of rice varieties that are genetically modified to counter vitamin A deficiency in developing countries.
- Golden rice differs from standard rice in that it contains extra genes one from maize and one from bacterial origin together responsible for the production of provitamin A (beta-carotene) in the rice grain.
- Provitamin A colors the grains yellow-orange, hence the name 'Golden Rice'. Once absorbed into the body, provitamin A is converted into vitamin A.
- The Golden Rice is developed by the Philippines-based International Rice Research Institute.
- According to the institute,
  - This rice variety will not be more expensive than the conventional variety.
  - It can be grown just the same way as the normal rice. There is no change in cost of cultivation.
  - It reduces water use without any yield loss.
- The International Rice Research Institute along with its partners has successfully cultivated Golden Rice in a controlled environment on IRRI campus.

## Other

- Vitamin A deficiency, which is the leading cause of blindness among children and can also lead to death due to infectious diseases such as measles.
- International Rice Research Institute
  - It is an independent, nonprofit, research and

educational institute, founded in 1960 by the Ford and Rockefeller foundations with support from the Philippine government.

- Headquartered in Los Baños, Philippines,
- Its regional centre was opened recently in Varanasi.