Science & Technology · GS - III

How was India benefitted from the contributions of Sir M. Visvesvaraya and Dr. M. S. Swaminathan in the fields of water engineering and agricultural science respectively?

EXAM YEAR	PAPER	SUBJECT
2019	GS - III	Science & Technology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Engineering innovation; irrigation infrastructure; flood management; agricultural research; Green Revolution; food security; scientific institution-building

Model Answer

Introduction

Sir M. Visvesvaraya and Dr. M. S. Swaminathan made landmark contributions to India’s water engineering and agricultural development, respectively.

Sir M. Visvesvaraya: Water Engineering

- Advanced irrigation engineering and water-resource management.
- Contributed to the design of the Krishna Raja Sagara Dam in Mysore, supporting irrigation and water supply.
- Developed an automatic water floodgate system and contributed to flood-protection planning, notably in Hyderabad.
- Promoted engineering education, industrialisation and planned development.

Dr. M. S. Swaminathan: Agricultural Science

- Played a leading role in adapting high-yielding wheat varieties and advancing the Green Revolution.
- Helped increase food-grain production and reduce India’s dependence on food imports.

- Promoted agricultural research, farmer education and scientific farming practices.
- Advocated sustainable agriculture, biodiversity conservation and the empowerment of small farmers.

Conclusion

Visvesvaraya strengthened water infrastructure and engineering capacity, while Swaminathan transformed agricultural productivity. Their contributions remain important for water security, food security and sustainable development.

BECOME IAS
AI POWERED UPSC PREP