



VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

+918171181080



+919068806410

www.vajiraoinstitute.com



info@vajiraoinstitute.com

TODAY'S ANALYSIS

(17 September 2023)

TOPICS TO BE COVERED

- PM VISHVAKARMA
- GENETICALLY MODIFIED (GM) CROPS
- JAL JEEVAN MISSION



ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

+918171181080



+919068806410

www.vajiraoinstitute.com



info@vajiraoinstitute.com

PM VISHVAKARMA

On the occasion of **Vishwakarma Jayanti**, Prime Minister Shri Narendra Modi launched a new scheme named "PM Vishwakarma" on 17th September, 2023.

It has been the sustained focus of the Prime Minister to give support to the people **engaged in traditional crafts**. This focus is driven by the desire to not only support the artisans and craftspeople financially but also to keep the age-old tradition, culture and diverse heritage alive and flourishing through local products, art and crafts.

ABOUT THE SCHEME

PM Vishwakarma will be **fully funded by the Union Government** with an outlay of **Rs 13,000 crore**.

Under the scheme, **the Vishwakarmas** will be **registered free of charge** through **Common Services Centres** using biometric based **PM Vishwakarma portal**.

The Scheme **aims to strengthen and nurture** the **Guru-Shishya parampara** or **family-based practice** of traditional skills by Vishwakarmas working with their hands and tools. The prime focus of PM Vishwakarma is at **improving the quality as well as the reach of products and services** of artisans and craftspeople and to ensure that they are integrated with the domestic and global value chains.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



FINANCIALS

They will be provided:

- Recognition through **PM Vishwakarma certificate** and **ID card**,
- **Skill upgradation** involving basic and advanced training,
- **Toolkit incentive** of **Rs 15,000**.
- **Collateral-free credit** support up to **Rs 1 lakh (first tranche)** and **Rs 2 lakh (second tranche)** at a concessional **interest rate of 5%**, incentive for digital transactions and marketing support.

WHO ARE THE BENEFICIARIES?

The scheme will provide support to artisans and craftspeople of **rural and urban areas** across India. **Eighteen traditional crafts** will be covered under **PM Vishwakarma**. These include

- (i) Carpenter; (ii) Boat Maker; (iii) Armourer; (iv) Blacksmith; (v) Hammer and Tool Kit Maker; (vi) Locksmith; (vii) Goldsmith; (viii) Potter; (ix) Sculptor, Stone Breaker; (x) Cobbler (Shoemaker/Footwear Artisan); (xi) Mason (Rajmistri); (xii) Basket/Mat/Broom Maker/Coir Weaver; (xiii) Doll & Toy Maker (Traditional); (xiv) Barber; (xv) Garland Maker; (xvi) Washerman; (xvii) Tailor; and (xviii) Fishing Net Maker.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



GENETICALLY MODIFIED CROPS

The adoption of science based technologies for **crop improvement** such as genetic engineering for developing **Genetically Modified (GM)** crops as a supplement to **conventional breeding methods** has become an absolute necessity to address the burgeoning and complex challenge of achieving global food and nutritional security under the fast changing climate.

According to the Global Food Security and Nutrition Report, 2019, **it is difficult to achieve the 'Zero Hunger' target by 2030.**

GM MUSTARD

The **Genetic Engineering Appraisal Committee (GEAC)** has yet again cleared the proposal for **commercial cultivation of GM Mustard**. GEAC functions in the **Ministry of Environment, Forest and Climate Change**. It is **responsible for appraisal of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production** from the environmental angle.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



It is also responsible for **appraisal of proposals relating to release of Genetically Engineered (GE) organisms and products** into the environment including experimental field trials.

HISTORY OF GM MUSTARD:

Earlier, in 2017, the GEAC had cleared the proposal for commercial cultivation of GM Mustard. However, the Union Environment Ministry vetoed it and suggested that the panel hold more studies on the GM crop.

GENETIC MODIFICATION/ENGINEERING

- Genetic engineering aims to transcend the genus barrier by **introducing an alien gene in the seeds to get the desired effects.**
 - The alien gene could be from a plant, an animal or even a soil bacterium.
E.g., **Bt cotton** has two alien genes from the soil bacterium **Bacillus thuringiensis (Bt)**.
 - It allows the crop to develop a **protein toxic to the common pest pink bollworm.**

Seeds produced using genetic engineering are called Genetically Modified Seeds.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



GM crops research and developments in India



RICE: Biofortification, resistance to drought salinity, tungro virus, gall midge, bacterial leaf blight



WHEAT: Improvement of quality traits, heat tolerance, biofortification, resistance to leaf and stripe rust, karnal bunt, powdery mildew



COTTON: Fibre strength and oil content, gene stacking in BL. cotton



MAIZE: Quality protein biofortification



EGGPLANT: Resistance against fruit and shoot borer



MUSTARD: Seed yield, and oil content, low glucosinolate, aphid resistance



SOYBEAN: Resistance to yellow mosaic virus



CHICKPEA: Resistance against pod borers



SORGHAM: Shoot fly resistance



GROUNDNUT: Resistance against TSV virus

ADVANTAGES OF GM CROPS

- **Increase productivity and prevent crop loss:** GM crops are resistance to insect damage, tolerant to herbicides, resistance to plant viruses which help farmers prevent crop loss and increases the crop productivity.
- **Food security:** With increase in population demand of food also increasing, to address this GM crops help foods to become more accessible and affordable for consumers.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



- **Enhanced nutritional quality:** Many varieties of GM food crops have been developed, to enhance nutritional quality. Eg. Golden rice is a transgenic variety in rice, which is rich in vitamin A.
- **Maintain soil fertility:** GM crops have increased efficiency of mineral usage that reduces excess use of fertilizers and prevents loss of fertility of soil.

CHALLENGES WITH GM CROPS

- **Bio-safety of human and animal health:** Risk of toxicity, due to the nature of the product or the changes in the metabolism and the composition of the organisms resulting from gene transfer.
- **Environmental concerns:** Since a GMO is **artificially created**, its breeding with the other crops in the natural ecosystem **can result in genetic contamination**. GM technology **could also allow the transfer of genes from one crop to another, creating super weeds** which might be immune to common control methods.
- **Economic concerns:** Yields of GM crops have turned out to be false. For example, in India, with its Bt cotton experience, cotton yield has stagnated around 460 kgs per hectare in the recent past, despite most cotton being GM.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



- **Ecological concerns:** GM crops could lead to erosion of biodiversity and pollute gene pools of endangered plant species.

WAY FORWARD:

- **Awareness and information:** Public awareness with reliable evidence-based information on GM crops such as keeping biosafety data out of the public domain needs to be increased to take informed decisions.
- **Government roadmap:** The government should come up with a fresh road map for ensuring food security without jeopardising the biodiversity and compromising with the safety of human health.
- **Capacity building:** There is need of capacity building in GM research agenda and development with science based consistent regulatory policy.
- **Robust clinical trials:** Clinical trials of GM crops need to be contingent on robust demonstration of safety and efficacy.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

+918171181080



+919068806410

www.vajiraoinstitute.com



info@vajiraoinstitute.com

JAL JEEVAN MISSION

- The Jal Jeevan Mission aims for providing **piped drinking water to all rural households by 2024.**
- The **Jal Shakti Ministry** is the nodal ministry for the implementation.
- Jal Jeevan Mission (JJM) envisages supply of **55 litres of water per person per day** to every rural household through **Functional Household Tap Connections (FHTC)** by 2024.
- JJM focuses on **integrated demand and supply-side management** of water at the local level.
- JJM looks to create a **jan andolan for water**, making it **everyone's priority.**
- **Funding Pattern:** The fund sharing pattern between the Centre and states is 90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for Union Territories.
- The total allocation to the scheme is over **Rs 3 lakh crore.**

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

+918171181080



+919068806410

www.vajiraoinstitute.com



info@vajiraoinstitute.com

IMPLEMENTATION

- **Paani Samitis** plan, implement, manage, operate and maintain village water supply systems.
- These consist of **10-15 members**, with **at least 50% women members** and other members from Self-Help Groups, Accredited Social and Health Workers, Anganwadi teachers, etc.
- The committees prepare a **one-time village action plan**, merging all available village resources. The plan is **approved in a Gram Sabha** before implementation.

PERFORMANCE

- Currently about 12.3 crore (62%) rural households have piped water connections up from 3.2 crore (16.6%) from 2019.
- Five states viz; Gujarat, Telangana, Goa, Haryana, and Punjab and 3 Union Territories — Andaman & Nicobar Islands, Daman Diu & Dadra Nagar Haveli and Puducherry have reported 100% coverage.
- Himachal Pradesh at 98.87%, followed by Bihar at 96.30%, are also poised to achieve saturation in near future.

ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)



VAJIRAO & REDDY INSTITUTE

India's Top Potential Training Institute for IAS

+918171181080



+919068806410

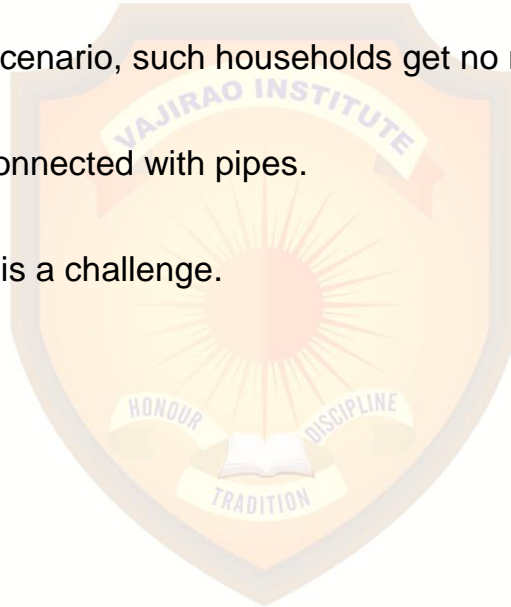
www.vajiraoinstitute.com



info@vajiraoinstitute.com

SHORTCOMINGS

- Even in villages officially certified as **having 100% coverage** of Functional Household Tap Connections (FHTC), **many households do not have taps.**
- Some do have taps, but are **not getting any water through them;**
- Even in the best case scenario, such households get no more than two hours of water.
- Many houses are not connected with pipes.
- Quality of water supply is a challenge.



ADDRESS:

19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)