

## All India Startups Convention 2018

National Committee on Plasticulture Applications in Horticulture Ministry of Agriculture & Farmers Welfare Government of India

## Strengths

- Adequate sun light but not able to grow quality & export oriented crops
- Adequate labour force. 60-70 % farmers depend on Agri
- Range of climate/ crops/ seasons
- Enough rainfall but less than 50% irrigated area
- A large area under canal system but seepage/ evaporation losses
- Enough Resources but Poor Management

## Weakness

- Shrinking land holding
- Low productivity per unit area
- Higher post harvest losses/ Unorganised Marketing
- Lesser realization- APMC norms vary state to state
- Decreasing water level- Alarming droughts
- Erratic rainfall/ Decreasing water availability for agricultur
- Higher seepage & Evaporation losses Increasing water logged and brackish area
- Inadequate access to markets, information, Govt data

## Average Productivity MT/ha

CROP	INDIA	WORLD	HIGHEST
Cotton	4.64	7.33	11.1 (China)
Maize	1.8	4.4	14.3 (Israel)
Oilseeds	0.86	1.86	4.07 (Germany)
Onion	10.6	17.6	46.9 (USA)
Paddy	2.96	3.9	8.8 (Egypt)
Potato	19.4	15.9	48.4 (Belgium)
Pulses	0.59	0.8	4.5 (Netherland)
Soya	0.93	2.33	3.57 (Turkey)
Sugarcane	67	61	116 (Zimbabwe)
Tomato	16.3	26.7	61.9 (USA)
Wheat	2.74	2.87	7.9 (Germany)

# Production linked Agriculture to profit linked Agriculture

## **Doubling Farmers Income** National Agriculture Conference 19-20 Feb 2018

- Lowering cost of production & increasing realization
- Improved productivity
- Better marketing & minimizing wastes
- Soil Health Cards and carb use of excess fertilizers
- Use of solar energy
- Operation greens to augment supply chain Potato,
   Tomato & Onion
- Neem coated urea, Blending of ethanol with petrol

## Focused Area

- Sustainable inputs/ Natural Resources
- Precision Agriculture
- Supply chain
- Food Processing
- Soil & Weather Technologies- Predictions & linkages
- Agri Finance
- Urban Vertical Farming/ Soil less cultivation
- Organic Farming
- Post Harvest Technology
- Farm Fresh Retail
- Farm Mechanization

## Start up thoughts

- Agri clinics Various technologies as greenhouse operators.
   Fabricators, Repairs & Maintenance of Micro Irrigation system, Films/ Nets marketing
- Food Processing/ Juice making/ Ginger Garlic paste/ jam/ jelly/ pickles/ tomato processing
- Grape wine / Micro breweries production
- Cold chain for f&v/ Multi purpose cold storage
- Banana Wafer / Chips Production / Pack houses
- Soil data analysis thru Remote sensing/ drones

### Start up thoughts

- Bee keeping
- Honey Production & Processing
- Organic fertilizers production and marketing
- Certified seed production
- Bamboo- Basket and Chair Production
- Data base for production, market price, varietal demand for a particular sector, Rainfall, Water, soil, fertilizers etc
- Custom hiring of farm equipment

## Various Government Support Schemes

#### **INSURANCE**

- Pradhan Mantri Fasal Bima Yojana
- Weather Based Crop Insurance Scheme
  SOIL HEALTH CARD
- Setting up of new mobile soil testing laboratory 33% of cost upto Rs
   25 lakh per lab
- Setting up of liquid based Bio fertilizer/ pesticide- 25% upto 40 lakh
- Distribution of Micro nutrients gypsum/lime
- Plant Protection chemicals/ INM
- Adoption of organic farming independently or in clusters/ Village
- Vermi compost unit
- Soil Reclamation
- Setting up a Soil Testing project- 40% of cost upto 4 lakh

Pradhan Mantri Krishi Sinchayee Yojana

A budget of INR 50,000 crores for 5 years

- Water Carrying Pipes
- Micro Irrigation system
- Water Harvesting / storage structures
- Pump sets
- Construction of Bore well / Shallow tube well
- Water lifting Devices
- NABARD also refinance Industry loan

## Agricultural Marketing

- Agricultural Marketing Infra
- National Agriculture Market (e-NAM)
- Farmers Producer Organisation (FPO)
  - Better bargaining Power
  - Sorting, grading, packaging, transportation
  - Pre & Post harvest infrastructure which could provide better price to a farmer
  - Input Stores, agri clinics
- Financial assistance for
  - Storage Infrastructure
  - Marketing Infrastructure

## Organic Farming (Paramparagat Krishi Vikas Yojana (PKVY)

## Lowering use of Chemical Fertilizers

- Mobilisation of farmers in clusters- Expense related
- Training of farmers
- Community infrastructure for preparation of biopesticides & bio-fertilizers, Nitrogen fixing plants.
- Soil sample collection & testing
- Process documentation- inputs used, cropping pattern, certification charges.

## .....Organic Farming (Paramparagat Krishi Vikas Yojana (PKVY)

- Any natural pest control mechanism Neem cake
- Vermicompost Procurement of earth worms, pits, raw material.
- Agricultural Implements custom hiring
- Walk in tunnels
- Packaging, Labelling and Branding of Organic produce
- Conduct of organic fairs

# Horticulture (Cultivation of F&V, flowers, coconut for higher income)

- Vegetable seed Production Rs 1.5 lakh per ha
- High tech Nursery raising- INR 25 lakh per ha
- Small Nursery- Rs 15 lakh per ha
- Establishment of new gardens Rs 4 lakh per ha
- Integrated package for strawberry, banana, ultra high density.
- Growing spices, flowers, aromatic plants, plantation crops, mushrooms.
- Creation of water resources- Community tanks
- Protected cultivation, shade net house, Anti bird/ hail nets, plastic tunnel.
- Cost of planting material, Mulching
- Pack house, pre cooling, cold room, mobile pre-cooling unit, Cold storage unit, Refrigerated vans, Ripening chamber

- Bee keeping- Bee stock, colonies, Distribution,
   Equipments
- Production & Distribution of seeds- Pulses, oilseeds, foddor, green manure crops, Seed infrastructure.
- Creation of Seed Reserve- maintenance cost, sheds, drying platforms, fumigation, spraying etc.

## Mechanization

- Tractor, Power tillers, Rice trans planter etc
- Self Propelled Machinery
  - Automatic urea application machine
  - Fruit Pluckers
  - Tree pluckers
  - Track trolley
  - Power operated tools for pruning, grafting.
  - Tillage & seed bed preparation, Rotovat
- Harvesting, Post harvesting & Threshing Equipment
- Solar Photovoltaic pumping System
- Custom hiring

## Training & Extension

- Skill Development Programmes-
- Training of farmers and other stake holders
- Ghostis

सरकारी योजनाओं व कार्यक्रमों की किसानों के लिए मार्गदर्शिका 2017-18 A Farmer Friendly Handbook for Schemes & Programmes 2017-18



भारत सरकार | Government of India कृषि और किसान कल्याण मंत्रालय | Ministry of Agriculture and Farmers Welfare कृषि, सहकारिता और किसान कल्याण विभाग Department of Agriculture, Cooperation and Farmers Welfare

## Conclusion

- Agricultural to be value added rather production linked
- Focused approach for startups (Pre production, Production, Post Harvest and Marketing)
- Project study before any work for financial viability
- Intercropping, Organic manuring, Neem cake
- Solar energy Gujarat model with buy back of electricity
- Supply chain/ E-marketing/ Data analytical/ Price forecast
- Production in line with legislation of respective area/ Quality
- Virtual Water concept. Eco tourism/ Demo village



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