



Strategies for Promotion of Natural Farming

Dr N Balasubramani
Director
Centre for Climate Change and Adaptation (CCA)
MANAGE

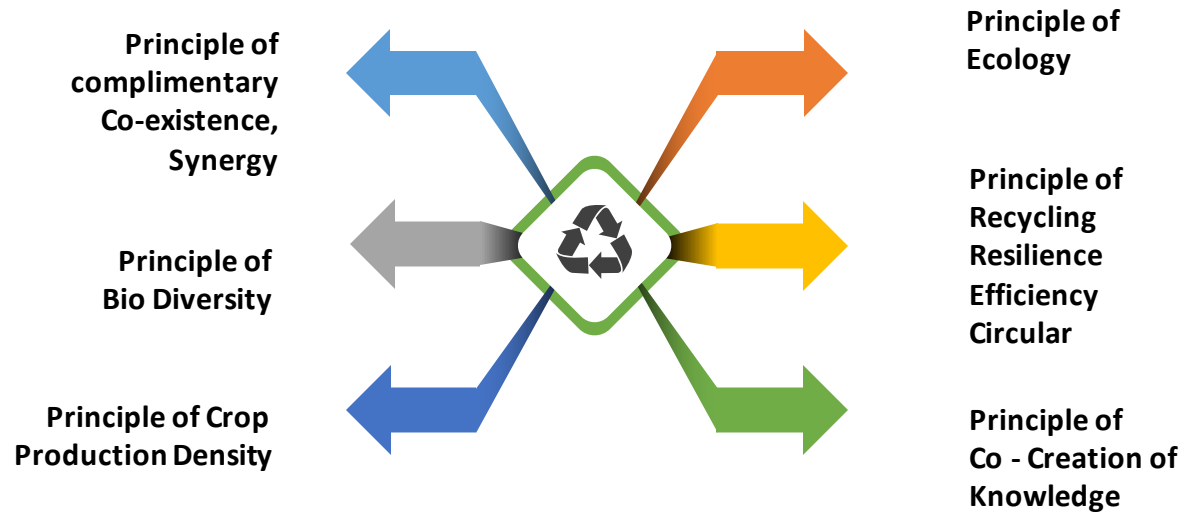
Tasks

- What is the current situation of agriculture including the Natural Resources?
- How the conventional agriculture contributes to Climate change and affect human health?
- How Natural Farming can be used as tool for enhancing soil health, environmental health and human health?
- What is your understanding about Natural Farming?
- How it is different from Organic farming?
- What are the challenges in promoting Natural Farming and how to address these challenges?

Table –2. List of identified villages from different each of the five states.

S.No.	State	District	Block	Villages (10)
1	Andhra Pradesh	Krishna	Agiripalli	Vadlamanu
				Chinna Agiripalli
			Unguturu	Akture
				Sheri Narasanna Palem (Bapulapadu)
2	Orissa	Koraput	Nandapur	Adra
				Dandaguda
			Boipariguda	Kupuliguda
				Nuaguda
3	Sikkim	Gangtok	Martam	Chalamthang
				Thumlaboong
			Nandok	Nandok
				Assamlingzey
4	Himachal Pradesh	Shimla	Theog	Jathai
				Bajnashra
			Rampur	Shah
				Pashada
5	Gujarat	Dang	Waghai	Ambapada
				Sakar Patar
			Subir	Chikli
				Amsharpada

Principles of Natural Farming



Programmes of natural farming

Andhra Pradesh

Community Managed Natural Farming (APCMNF) programme is implemented by Rythu Sadhikara Samstha (RySS) since 2015

Himachal Pradesh

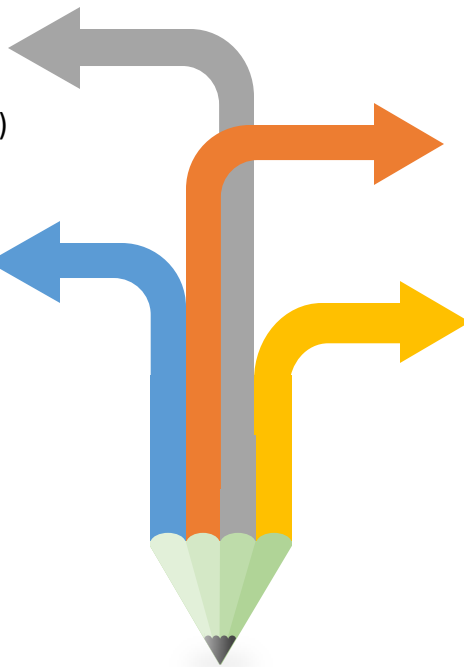
Prakritik Kheti Khushhal Kisan Yojana (PK3Y) started in 2018

Gujarat

Cow scheme, Prakrutik Krushi Kit Scheme and proposed to create a Prakrutik Krushi Vikas Board

Bhartiya Prakritik Krishi Paddhati (BPKP)

BPKP is implemented by Andhra Pradesh, Chhattisgarh, Kerala, Himachal Pradesh, Gujarat, Jharkhand, Odisha, Madhya Pradesh, Tamil Nadu and Uttar Pradesh (**total 10 states**)



Salient outcomes

Total no of farmers adopted natural farming in sample areas

- ✓ Andhra Pradesh - 6.2 lakh in 2.88 lakh ha
- ✓ Gujarat - 1.81 lakh in 0.8 lakh ha
- ✓ Himachal Pradesh - 1.6 lakh in 0.13 lakh ha

Farm size

- ✓ Average farm holding - 2.84 acres
- ✓ Average holding of NF - 1.77 acre per farmer

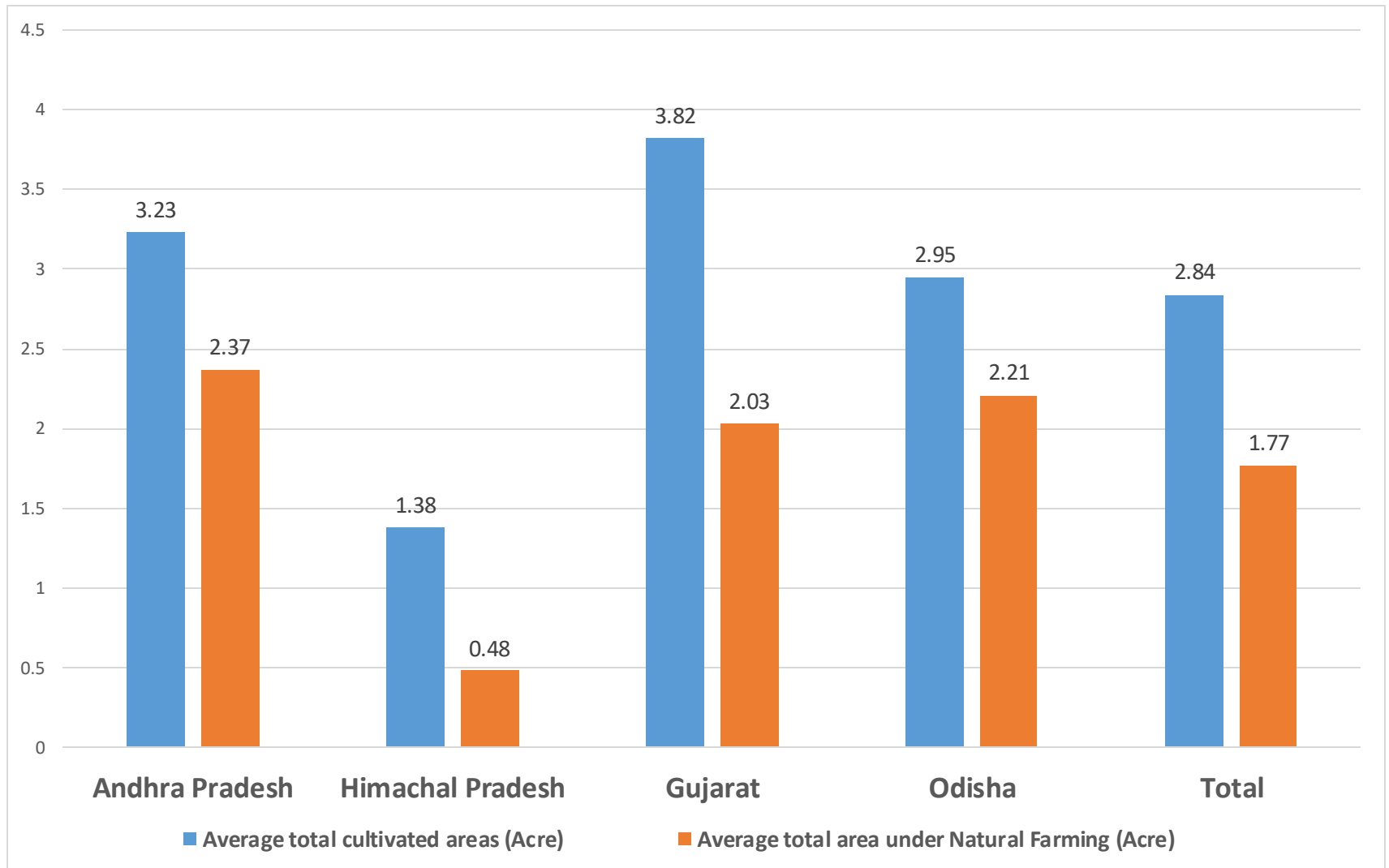
Farmer category

- ✓ 91% small and marginal farmers

Cost of cultivation

- ✓ 94% of farmers - cost of cultivation reduced by 50% in various cropping systems e.g.(Apple + Vegetables) in Himachal Pradesh, (Mango + Vegetables) in Andhra Pradesh, (Millets +Pulses) in Odisha and Gujarat.

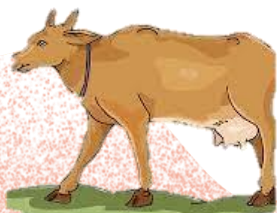
Average Area under Natural Farming (Acre)



Mechanisms adopted for promotion of Natural Farming

Particulars	Andhra Pradesh	Gujarat	Himachal Pradesh	Odisha
Institutional mechanism	RySS	ATMA	ATMA	Through NGOs
Extension and advisory services	ICRP, CRPs, SCRPs and MTs	BTM and ATM Farmer Friends working in ATMA as Master Trainers	BTM, ATM and Farmers Trainer	CRPs
Other extension activities	Group approach through SHGs More than 90% of the farmers who practice natural farming are members of SHGs	Training, demonstration, farm schools, exposure visits, melas Advertisement on bus - 1200 public transport (Gujarat State Road Transport Corporation)	Training, demonstration, farm schools, exposure visits Group approach through women SHGs Separate media cell for a wide scale publicity	Training, demonstration Tied up with traders, FPOs, Odisha Millet Mission to sell NF produces

Incentives and Support services



Incentives for desi cows and pucca floor

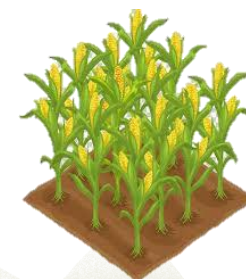
- In HP, Rs.8000 for farmers practicing NF for cow shed lining

Rs. 25000/- as subsidy for buying desi cows
- In Gujarat, Rs. 10,800/- yearly (Rs.900/month) to maintain desi cow
1.84 lakh farmers benefited



Incentives for preparation of NF inputs

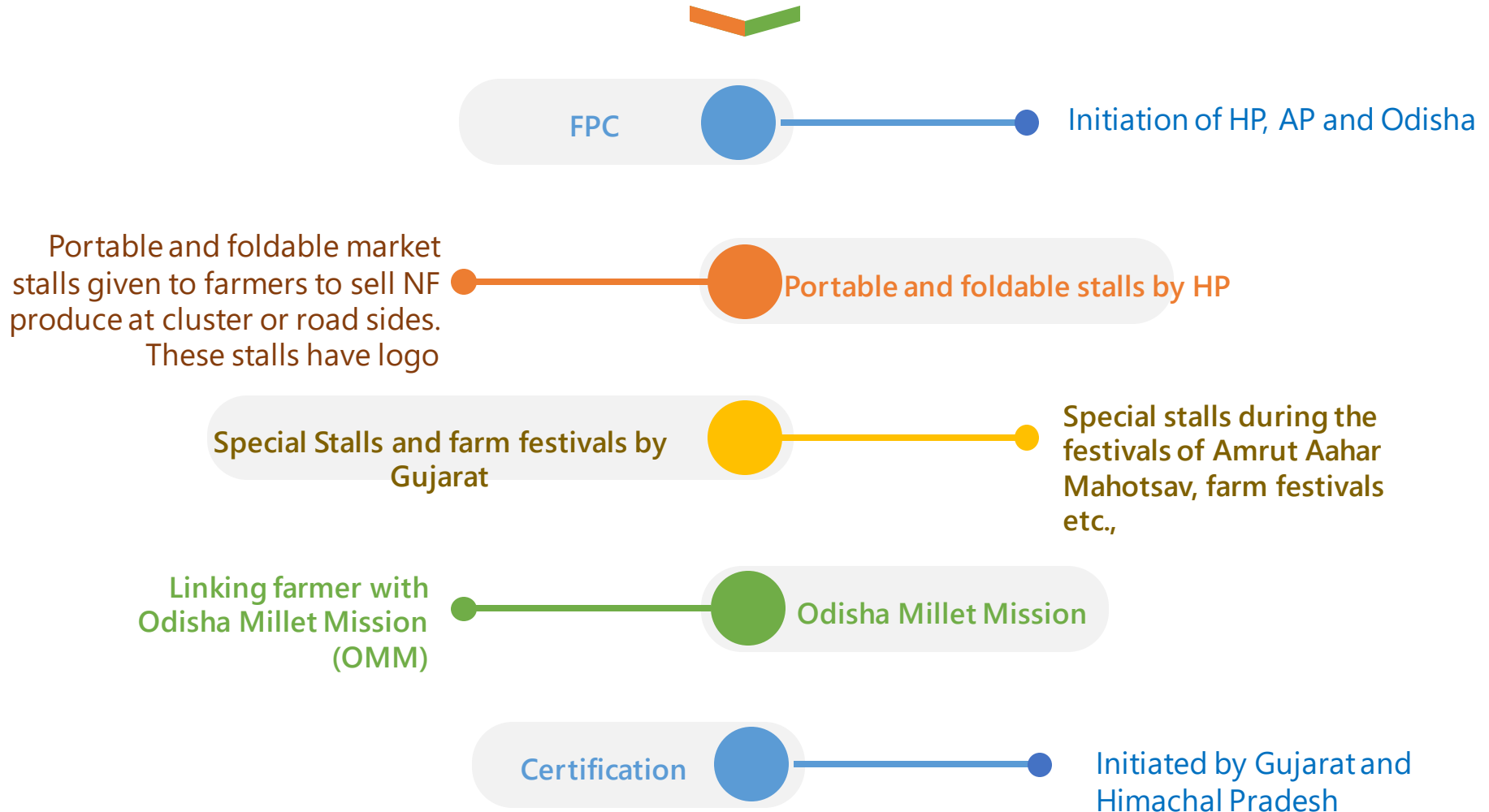
- In HP, Rs.10,000 for establishing sansadhan Bhandar. 1102 SB established so far.
Rs. 2250 or 60% subsidy per farmer for buying drums
- In Odisha, Rs.2,000/- as Direct Benefit Transfer (DBT) to buy and prepare NF inputs
- In Andhra Pradesh, Rs.20,000 to 35,000 to establish Non pesticide Management (NPM) Shops in 2017 in initial periods.
- In Gujarat, Rs.5000/-per season for two seasons as incentives to meet the cost of NF input preparation



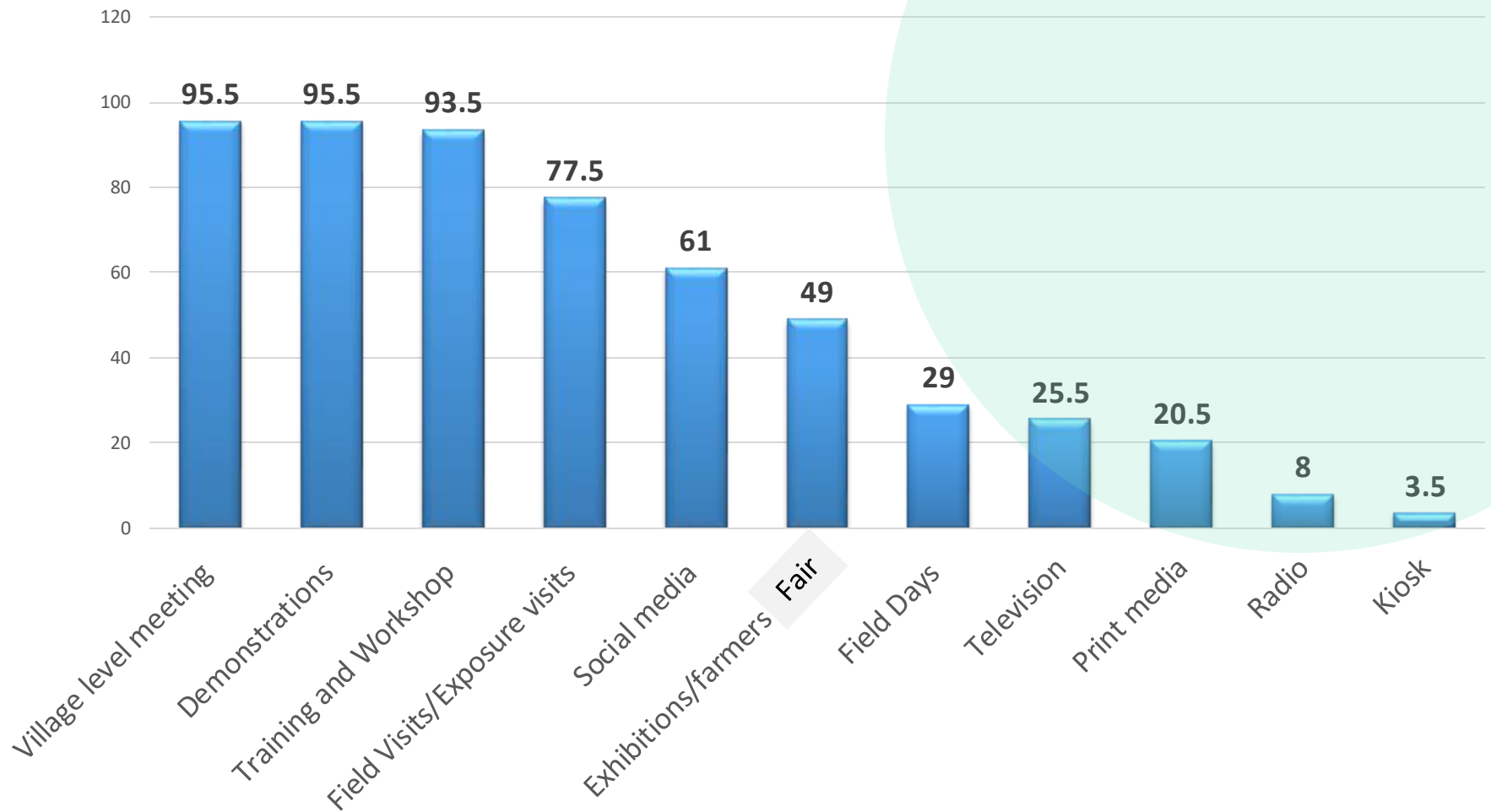
Incentives for NF demonstrations

- In Himachal Pradesh Rs.4,000 per farmer for conducting demonstration
- In Gujarat, Rs. 10,000 is given for forming NF Association

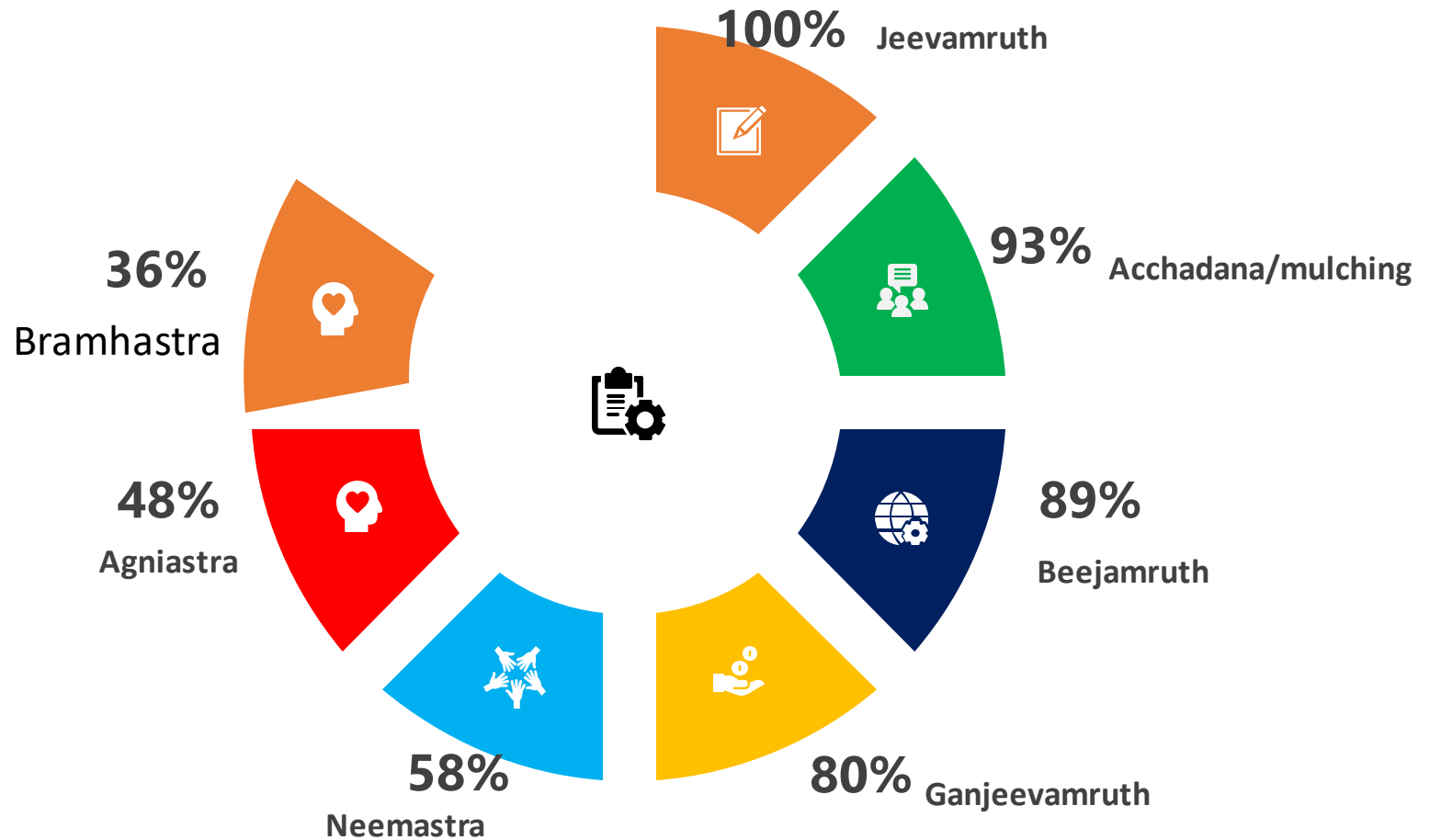
Marketing Support for NF produce



Exposure of selected farmers to extension activities (in %)



NF inputs adopted by natural farming farmers



A Case of Sansadhan Bhandar



01

Mr. Sher Singh Chauhan

Practicing natural farming since 2012, Shimla
Though he faced yield reduction in apple 50% in initial two years, he continued and succeeded

02

Recognized him as a model farmer

His conviction on NF, ATMA has identified him and encouraged to establish Sansadhan Bhandar with incentive of Rs.10,000

03

All kinds of inputs available

He prepares natural farming inputs such as Jeevamruth, Ganjeevamruth, Brahmaastra, Agniastra, etc. and sell at an affordable price to farmers

04

Meeting the NF inputs need

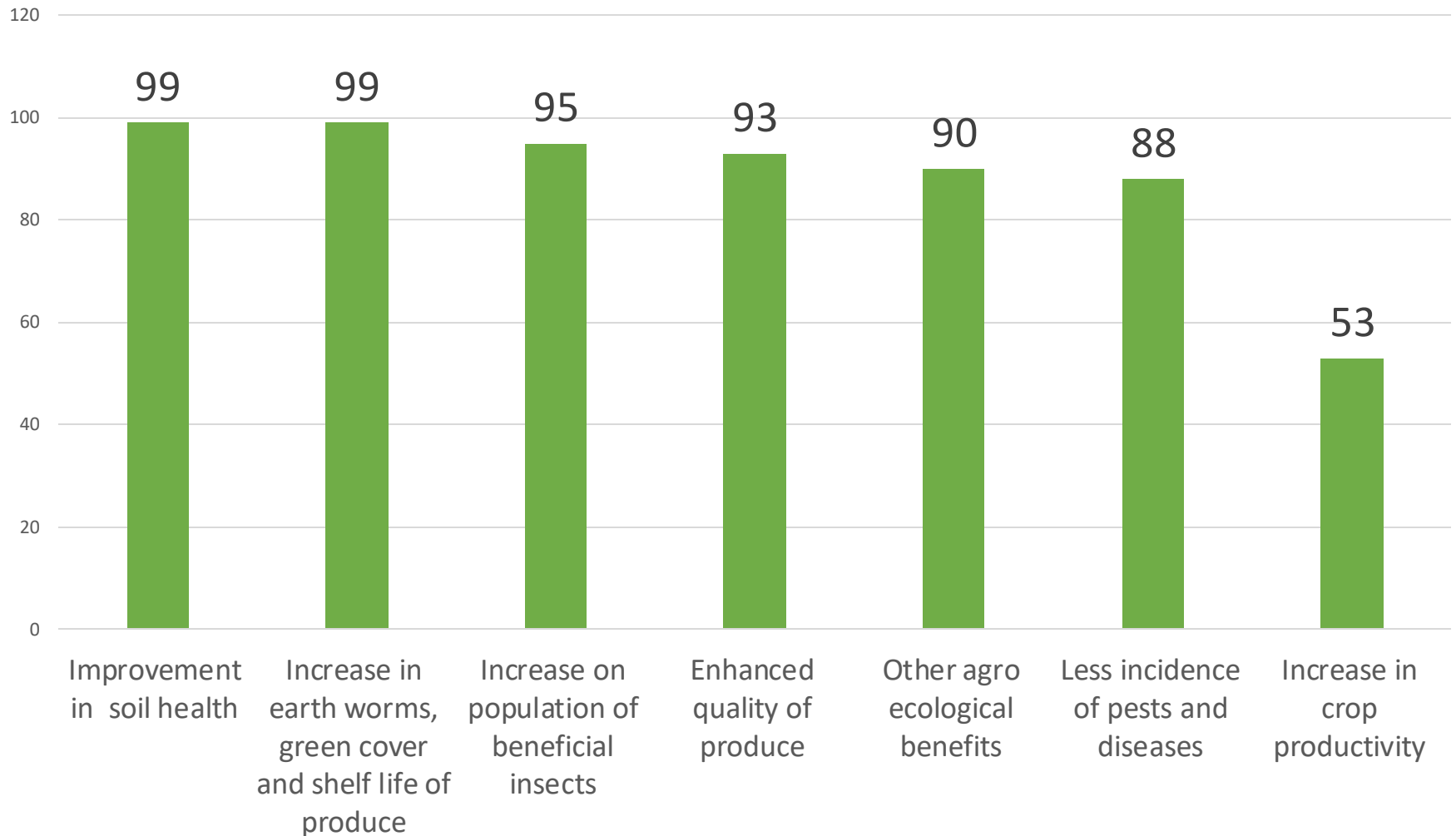
Sanskadhaan Bhandar is also able to meet the demand of natural farming inputs of at least four to five villages located in Sanarsa Gram Panchayat

Price list of natural farming inputs sold at Sansadhan Bhandar by Mr. Sher Singh Chauhan

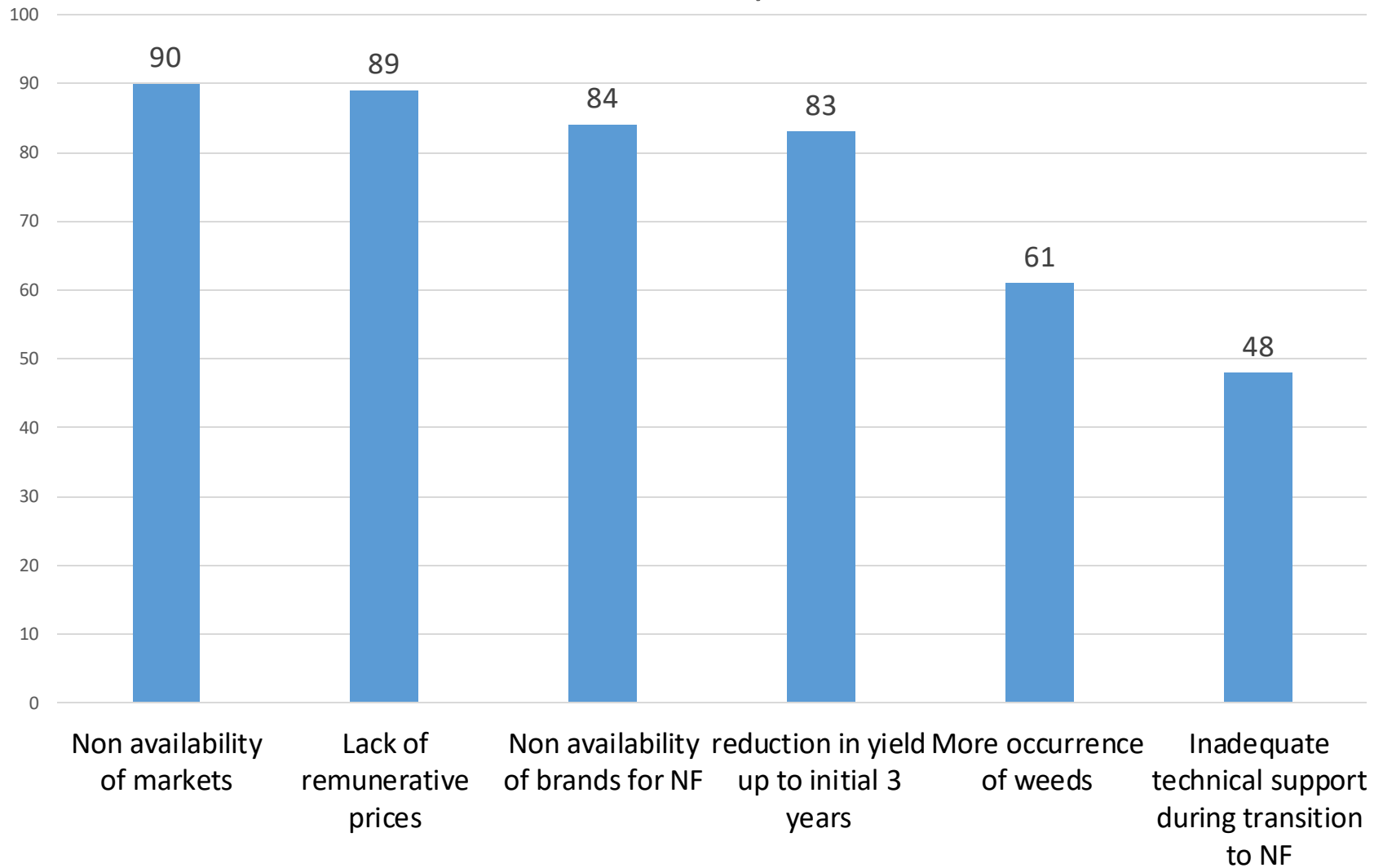
S.No.	Natural farming inputs	Unit	Sale rate (Rs/unit)
1.	Cowdung	Kg	6
2.	Cow urine	Ltr	9
3.	Ganjeevamruth	KG	11
4.	Jeevamruth	Ltr	3
5.	Beejamruth	Ltr	6
6.	Neemastra	Ltr	3
7.	Bramhastra	Ltr	24
8.	Agniastra	Ltr	34
9.	Dashparani ark	Ltr	34
10.	Neem Malham	Kg	5
11.	Buttermilk (Lasi)	Ltr	9
12.	Saptyadhanyankur	Ltr	5
13.	Jungle ki Kandi	Ltr	2
14.	Sothastra	Ltr	4



Perceived benefits of NF by practicing farmers



Constraints faced by NF farmers



Mass Awareness



Engaging Eminent Personality for Influencing Behavioural change



- Engaging prominent personalities like Acharya Devvrat ji, Palekar ji, Tiyaagi ji etc to influence the behaviour of farmers

- Engagement of prominent personalities enhances adoption rate of natural farming



- On field trials by prominent personalities

Involvement of Panchayats and Local bodies



- Involving local leaders for sensitization of NF
- MANAGE conducted 997 batches covering 56952 Gram Pradhans
- Convergence of various schemes at grassroot level

Exhibitions/Krishi Mela



- Change of Consumer and Farmers mind set
- Popularization of NF produce
- Motivation of Farmers
- Linkage with customers
- Social behavioral change

Training and Exposure visit to Successful Field



- Effective dialogue with practicing farmers improves understanding of NF principles
- Improve knowledge and skills of extension functionaries
- Builds confidence

Peer to Peer Learning through Groups For Mainstreaming Natural Farming



- Group Approach
- Engagement of SHG in a awareness program (FIG/ CIG/ FSG)
- Women are Involved in exchange of ideas in the small group – women empowerment
- Monthly meeting to clear doubts
- They are from same locality, familiar to each other
- They have given leadership role in meeting rather than mere talking
- Increase their confidence
- Convincing the other members is easy
- Information exchange through Whatsapp group
- Seed money Rs10,000/- as revolving fund
- Preparation of Bio input/ formulation
- Purchase of local seed / Planting material
- FSG – undertake Nutritional garden
- Value addition of Millets grown under NF
- Collectively market in the state/ district / local fair

TMT & FMT Concept



- Each pair of TMT & FMT allotted 10 villages cluster
- Four trainings jointly in every village in each cropping season
- Provision of atleast two model farms for group of ten villages cluster
- Honorarium of Rs. 500/- per session for FMT
- Involvement of TMT minimizes the problem of misinformation by FMT

Training and Demonstrations – Experiential Learning



- Easy to understand
- Upskilling of farmers in NF
- Optimum use of local resources

- Process of learning by doing
- Practical exposure to practicing farmers
- Reduces misinformation



Farmer to Farmer Extension

Community Resource person/ Farmer Master Trainer/ Master Trainer/ Cluster Assistance/ Farmer friend



- **Farmer-trainers train farmers on a wide range of practices**
- **Shares Success Stories**
- **Promotes community validated practices**
- **Faster adoption by farmers**
- **Peer-to-peer approach**



Continuous Handholding through Trusted Extension professional

- Frequent handholding of farmers by extension professionals
- Builds personal relations
- Enhances the confidence of farmers in NF practices
- Location specific and site specific advisories to the farmers
- MANAGE has trained 661 Master Trainers on NF
- Investment on Master Trainers in required for sustained knowledge exchange



Model Farm/ Model Village



- Minimum three years of practicing farmer
- Adopting pillars of NF
- Having Desi cow
- Financial incentive is provided to model farm for facilitating CB
- Acts as village level knowledge center
- Facilitates training and exposure visits

Krishi Sakhis – Community Change Agent



- MoA&FW and MoRD jointly building the capacity of Krishi Sakhis in NF
- MANAGE will certify Krishi Sakhis as para-extension worker for NF
- Resource organisations – KVKs, Patanjali, ICCOA, RySS, CSA
- Promotes women participation
- Brings grass root level promotion of NF

Involving Interns for Acquainting Natural Farming



- Attracts youth towards Natural Farming
- Opens doors for entrepreneurship opportunities in NF
- Develops professional knowledge for the budding extensionists/ experts

Behavioural Change through Financial Incentives



- Financial support for purchasing NF inputs
- Honorarium to Master Trainers and Krishi Sakhis
- State sponsored exposure visits and CB activities to farmers

Rishi – Krishi- Sant Yatra

- Informal approach to promote NF among communities



- Involving religious leaders for promotion of NF

Farmer friendly tools for upscaling NF



- Pictorial presentation
- Animated films
- Story Boards
- Street shows
- Folk songs
- To create interests among farmers and bring behavioral changes

Behavior change approaches for Consumers

- Weekly Market at ATMA Office



- Sensitize consumers towards NF produce
- Promotes demand for NF produce
- Provide market linkages to NF practicing farmers
- Premium price for NF produce

Major Triggers for Adoption of NF by Farmers

- ✓ Awareness and capacity building
- ✓ Knowledge and easy access to locally available inputs
- ✓ Continuous extension and handholding support
- ✓ Institutional mechanism
- ✓ Farmer to farmer extension
- ✓ Government initiatives including incentives and programmatic approach
- ✓ Awareness on safe, quality and nutrient foods among producers or consumers
- ✓ Extensive use of social media platforms
- ✓ Small scale innovative marketing models such as foldable and portable stalls with NF logo and star type certification system
- ✓ Partnering with local institutions such as NGOs, SHGs, farmers collectives
- ✓ Experimenting at small scale as entry point (kitchen garden)

Strategies for Upscaling

01

To start with, NF should be promoted among small and marginal farmers, dryland & low external input and horticultural ecosystem; tribal & high altitude regions

02

Model farmers, model farms, and model villages on NF in every block/cluster of villages have to be created to encourage farmer-led extension

03

Development of adequate number of Master Trainers and frequent practical and experiential learning

04

Standard Operating Procedures for the supply chain of landraces need to be developed and Promotion of local seed systems by encouraging community seed banks

05

Developing Bio Resource centres and strengthening local input supply chain management on NF similar to Sansadhan Bhandar in Himachal Pradesh and Non-Pesticide Management (NPM) Shops in Andhra Pradesh

Strategies for Upscaling

06

Promotion of natural farming in a cluster to avoid the migration of insect pests from nearby chemical farming fields

07

Certificates for process and produce of natural farming – Single standard certification system

08

Strong market system and value chain management by linking women groups, farmers cooperatives, FPOs and mid meal scheme, Public Distribution System, temples, etc.

09

Research support for farmers on package of practices and eco friendly technologies

10

Need for identification and validation of other natural inputs such as Madka Kad in Odisha, Fish and Egg amino acid in Andhra Pradesh, Onion Dravanam & Dashparani Ark in Gujarat and Alovera, banana and orange bio enzymes in HP

Strategies for Upscaling

11

Co-Creation of Technologies and Protocol Validation

12

Suitable incentive mechanism for NF inputs, buying desi cows, etc.,

13

Investing in Farmer Trainers for Farmer-to-Farmer Extension

14

Creation of awareness among consumers about benefits of NF produce and concept of family farmer

15

Inputs from Gaushala

16

Common nomenclature

Strategies for Upscaling

17

Integration of allied activities

18

Rewarding for ecosystem services

19

Carbon credit

20

Consumer Behaviour through Wide publicity

21

Promotion of family farmer concept

22

Promotion of Natural Farming with Nutrition/Food angle

Journey of MANAGE in Scaling up of NF so far.....

MANAGE as Nodal Organization

- ✓ Ministry has nominated MANAGE as a Nodal organization and knowledge repository for promotion of NF
- ✓ Training Module for Master Trainers – > 600 Master Trainers were trained
- ✓ Created a Webpage on Natural Farming
- ✓ Created a YouTube Channel on Natural Farming
- ✓ Conducted Pilot Study on Natural Farming in India
- ✓ Organised Awareness Programmes for Gram Pradhan's on Natural Farming – 997 programmes covering 56,952 Gram Pradhans
- ✓ Prepared study Materials such as Posters, PPTs and video films in 22 regional languages
- ✓ Training Krishi sakhis (70000)



Awareness programmes to Gram Pradhans



Expected roles of MANAGE as Nodal Organization

- ❖ Establishment of Centre of Excellence
- ❖ Awareness creation
- ❖ Designing training modules and study material
- ❖ FAQ preparation, circulation and updation
- ❖ Online Training Programs through MOOCs
- ❖ Developing pool of Master Trainers
- ❖ Technical hand holding to Master Trainers through dedicated Experts
- ❖ Repository of Scientific and Community validated Good Practices and Success stories
- ❖ Interactive Online Platform
- ❖ Network of Experts and National directory of experts
- ❖ Annual National Convention, National Conferences, Seminars, Review Meetings, Webinars
- ❖ Active involvement of FPOs in promotion of Natural Farming



THANK YOU