

## **Seed Entrepreneurship Development among the Farmers under the Seed Village Concept\***

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### **Abstract**

*'Seed Village concept' is the term given to a practice wherein a group of like minded (in their profession) farmers brought together into a 'Self Help Group' are trained to work together in their effort to produce seeds of crops of their choice and cater to the needs of their own and that of fellow farmers, in appropriate time and at an affordable cost. The main feature of this programme are*

- \* *Seed is available at the door steps of the farmers at appropriate time.*
- \* *Seed is available at an affordable cost (lesser than the market price) due to decreased overheads.*
- \* *Increased confidence among the secondary seed producers about the quality of the product because of known source of seed production.*
- \* *Producer and consumer are mutually benefited (Win-a-Win situation).*
- \* *Facilitates fast spread of new cultivars and region specific varieties that are not covered by the seed agencies.*

*In an effort to induce seed production as an enterprise in the minds of the selected farmers, all the necessary infrastructure facilities, machinery and training are provided to them. Ultimately, trained self help groups in a district are clustered into a federation and trained to carry out the activity on their own.*

### **Seed demand and supply scenario in the country**

Seed is one of the prime components in crop production endeavor. It is noticed that there is lot of deficiency in the existing system of seed supply. At present National Seeds Corporation (NSC), State Seeds Corporation (SSC) and private companies are the agencies involved in seed production and distribution through registered seed growers throughout the Country. It is very difficult to monitor the qualitative characters of the seed in the present system, because of the geographical spread of seed producers. The cost of seed gets enhanced because of unavoidable overheads. The private agencies involved generally concentrate on production and supply of hybrid seeds only due to higher margin of profits. Thus, there exists wide gap in seed demand and supply of self pollinated and often cross-pollinated crops.

Localized seed production by farmers and sales can serve as a tool to meet the quality seed demand. A survey on demand and supply has shown that there exists a wide gap. Due to high cost of the seed many farmers do not purchase quality/certified seeds but retain own seeds or borrow from neighbouring farmers.

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A large number of such farmers will be benefited from the proposed seed village project, as seed will be available at a lower cost. This provides an insight to the scope existing for establishment of seed villages through which assured quality of seed can be made available in time at an affordable cost. The enterprise will benefit both the producer and the consumer who are in rural areas and hence assures the distribution of financial resources within the village. There is an enormous generation of employment through additional skilled labours involved in seed production and processing activities.

### ***Pilot Project – a forerunner***

At the outset it was experimented with few progressive farmers under the egis of Krishi Vigyana Kendra, Suttur.

Paddy Seed Production				Paddy Seed Utilization			
Villages & Varieties	No. of farmers	Area (ha)	Seed Production (q)	No. of Villages	No. of farmers	Quantity procured	Area coverage (ha)
Nagarle (Var. Jyothi)	5	6.5	205.75	7	149	205.75	261.00
Bokkahalli (Var. Jyothi)	2	2.0	20.00	5	32	20.00	26.00
Suttur (Var. Jyothi)	1	2.0	20.00	6	125	95.00	126.00

Based on the success of above pilot venture made, the JSS Mahavidyapeetha proposed to implement the seed village project covering 25 of the 27 districts of Karnataka as special project under SGSY.

### **Establishment of seed villages under SGSY**

The seed village project included two different phases.

**Phase-I** : Seed production of different crops based on demand in different areas by trained small farmers (members of SHGs) below poverty line in selected villages throughout the state.

**Phase-II** : Seed processing, bagging, labelling and sales by establishment of seed processing centres to be run by cluster of SHGs. These processing centres were used to process the seeds produced in the 10 seed villages. This centre is equipped with seed cleaners, graders, threshing yard, seed storage unit and a small seed testing laboratory.

### **Phase – I : Seed production by seed Villages**

Seed of good quality of different crops which has demand in a particular area was produced by selected farmers and SHGs below poverty line. The required skill for production of seed of various crops was imparted by the project implementer in coordination with the Agricultural

Universities, Dept. of Agriculture, Indian Institute of Horticulture Research and Dept. of Horticulture. The KVKs in different districts, Regional Research Stations and other NGOs were involved on organizing groups and imparting training programmes.

Basic Seed (Breeders/foundation seeds) required for the seed producers under this project was procured from Universities and research organizations by the project office and supplied to the farmers. Technical guidance and other help required at various stages of seed production was given by the subject matter specialists (SMS) appointed under the programme. It was envisaged that the farmers were constantly guided by the SMS for initial 3 years and further they were expected to imbibe the skills and continue on their own.

### ***Organization of Seed Villages***

20 villages selected from each of the 21 selected Districts of the state of Karnataka based on the availability of enterprising farmers, infrastructure and suitability in respect of crop requirements with the help of Dept. of Agriculture, KVKs and other NGOs. Group of 10 villages selected from each district was together called a Seed Village Cluster. All together 21 seed village clusters were organized throughout the state. 10 farmers (below poverty line) from each village based on their experience, willingness, available infrastructure and entrepreneurial skills, were selected (Seed Village Farmers). Formation of clusters, selection of farmers, arranging training programmes, supply of inputs at right time and monitoring seed production, harvesting and assisting in transportation were all taken care by the subject matter specialists guided by the district level officers and project officers and coordinator at nodal level. Most of these activities were monitored in collaboration with other coordinating agencies.

Selection of crop seeds and variety to be grown, quantity to be grown by each farmer was decided by the farmers and SMS at their 'District Level Federation' formed during the initial stages of project implementation. Input costs for seed production was met by the farmers.

### ***Phase – II : Establishment of seed processing, testing and bagging centres***

Seed processing and packaging is a very important aspect in seed production. 21 mini seed processing centres were established in each of the 21 clusters. The location of seed processing centres was based on the available infrastructure and convenience a place well connected with roads and transportation facilities. Each seed processing centre was provided with the following infrastructure.

1. Seed grader cum cleaner
2. Bag closer, trolleys, scales and furniture
3. Building to house the equipments
4. Seed storage structure
5. Seed threshing cum drying yard
6. Seed testing laboratory



**Hoovinahadagali SPUs Unit**



**Sri P.N. Shukla, Under Secretary, MRD, GOI taking a closer view of Seed Processing Unit at SPU, Suttur**



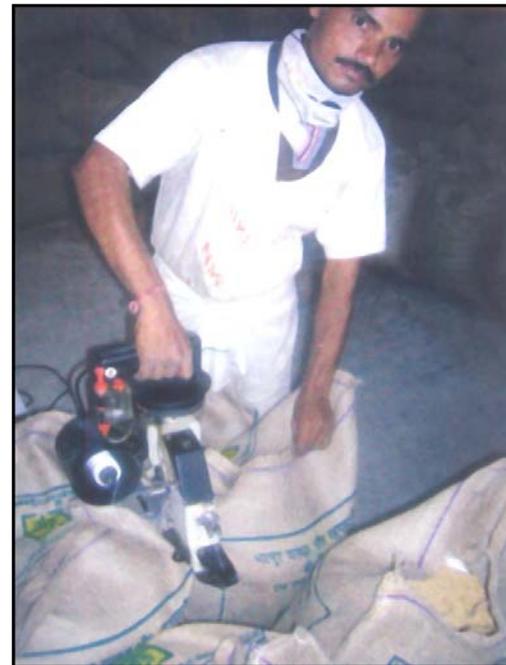
**Seed Grading Machine**



**Seed Dressing Drum**



**Seed Germinator**



**Bag Closing Machine**

The proposed infrastructure in each seed village cluster was built in lands/sites belonging to Govt. (Village Panchayath) it was designed to be owned by the federation of farmers at the cluster level.

### **Management of seed processing centres**

The Swarozgaries were sufficiently trained in the use of seed processing machinery. The cost of processing depends on the variety of crops, maintenance and quantity processed. It was so calculated that it runs on a marginal profit after meeting the operational cost. The processed seeds after seed testing were weighed and packed in bags carrying the brand name given under the project. The seeds were labelled as truthful seeds by seed certifying agency of the area.

The sales of seed was directly by the farmers themselves based on the available information. Centre may also procure and sell the seed which would be decided by the cluster level federation. A seed storage structure is also provided along with the processing centre, the services of which is be available at a fixed cost to the farmers.

Initial investment on buildings and machinery were provided under the project and working capital was facilitated as loan component from financial institutions. Further the unit would generate the working capital on its own and sustain. The marginal profits accrued in seed processing centre were utilized by the federation for arrangement of capacity buiding programmes for seed producers and other welfare activities.



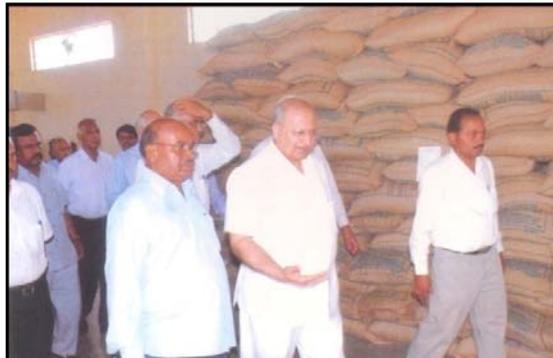
**Dr. M.S. Swaminathan providing clarification on the doubts expressed by farmers on seed village concept**



**Prof. M.S. Swaminathan being apprised of the Project activities by the Project Cordinator Prof. M. Rudraradhya**



**Dr. Montek Singh Ahluwalia Vice Chairman Planning Commission, GOI, discussing about the project at Suttur**



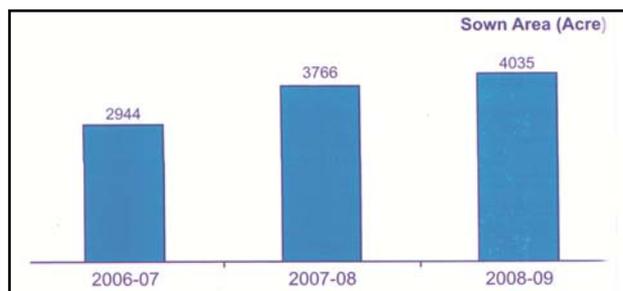
**Dr. R.S. Paroda Visiting the SPU**



**Dr. A.P.J. Abdul Kalam, former president of Indian had an appraisal about the project at his residence in New Delhi**

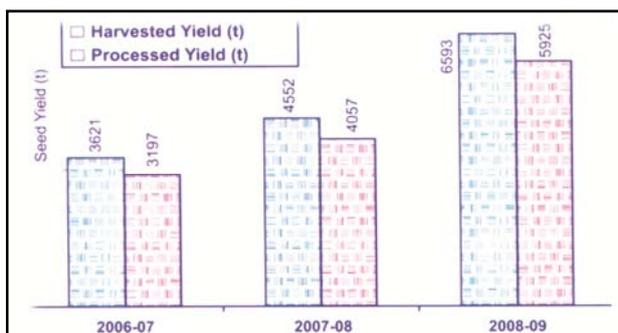
### **Demand, Production Performance and Income Generation :**

The accompanying shows the production performance and a comparison of production figures during 2006-07 to 2008-09.



Seed production swarozgaris of the project utilized one acre of their land for raising seed crops.

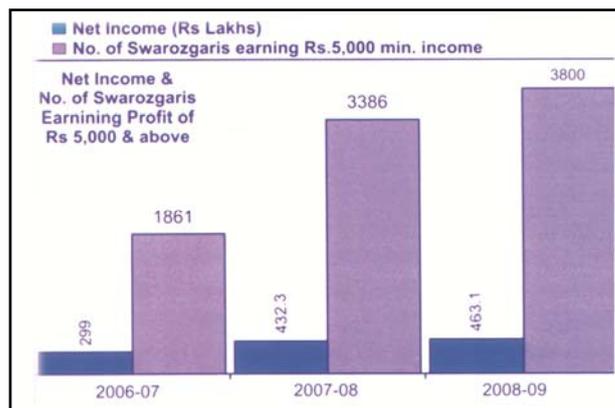
Paddy, Ragi, Dolichos, Maize, Wheat, Bajra, Groundnut, Soybean, Cotton, Redgram, Bangalgram, Greengram, Blackgram and Sunflower of chosen varieties



were grown as seed crop. The harvested seeds were processed in the nearby SPUs, certified, bagged and sold in the local market.

Nearly 16500t of seeds were produced during 2005-09. The sown area, yield and net income are shown in figure.

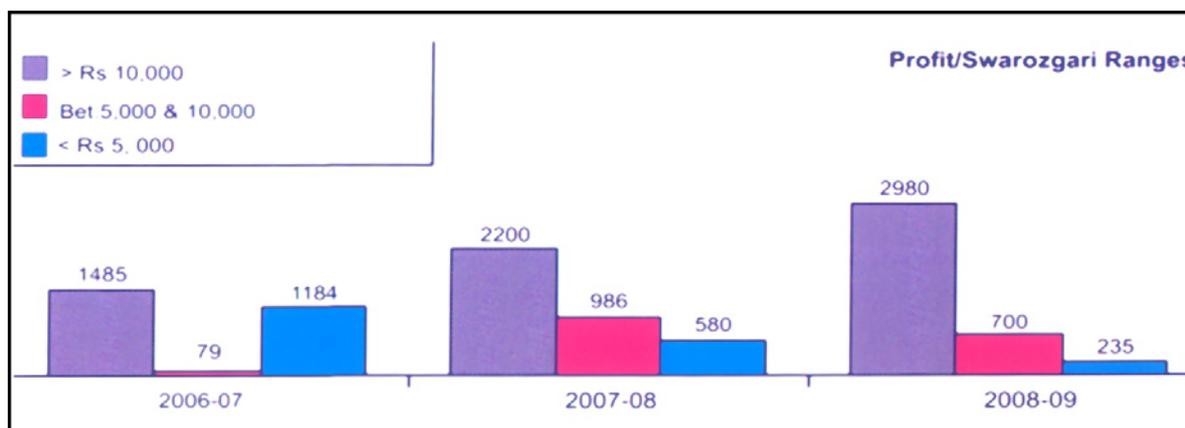
The number of swarozgaris earning a minimum additional income of Rs. 5,000 (as mentioned in the project document) was 1861 in 2006-07, 3386 in 2007-08 and 3680 in 2008-09 in khaif season against a total of 4224. The numbers are more in Rabi season. This shows the success of the seed production enterprise.



### Seed Production & Net Income

### Sustainability of Seed Production & Processing Activity :

Several of the project swarozgaris are continuing to utilize the knowledge, skills and facilities created under the project to earn increasing incomes by growing seed crops. As the demand for certified quality seeds far exceeds the supply in Karnataka, there is ample scope for the farmers to earn sustainable income from this activity.



**Number of project swarozgaris & their profit ranges, 2006-2008**

**Note :** The number on the top of the bar is the number of swarozgaris.

The increasing number of swarozgaris earning higher and higher incomes from 2005-06 to 2008-09 as shown in figure 5.8. is indicative of the sustainability of this agriculture activity. Paddy,

Groundnut and Redgram seed growers constitute about 70% of those earning more than Rs. 5,000 profit annually.

### **Optimum utilization of SPUs**

The project has demonstrated that additional income of can be generated by optimum utilisation of project SPUs for processing the seeds of KSSC, NSC and other seed farmers. Such additional income will contribute to the sustainability of the Self Help Groups.

### **References**

Anonymous, Annual Reports of the Project, “Employment generation for Rural Folk through Agri – Enterprises (2006-07 through 2009-10)