

Agricultural Extension Systems in India

Dr. K. Narayana Gowda

Vice-Chancellor

University of Agricultural Sciences, Bangalore

E-mail: *knarayanagowda@yahoo.co.in*



UAS
Bangalore

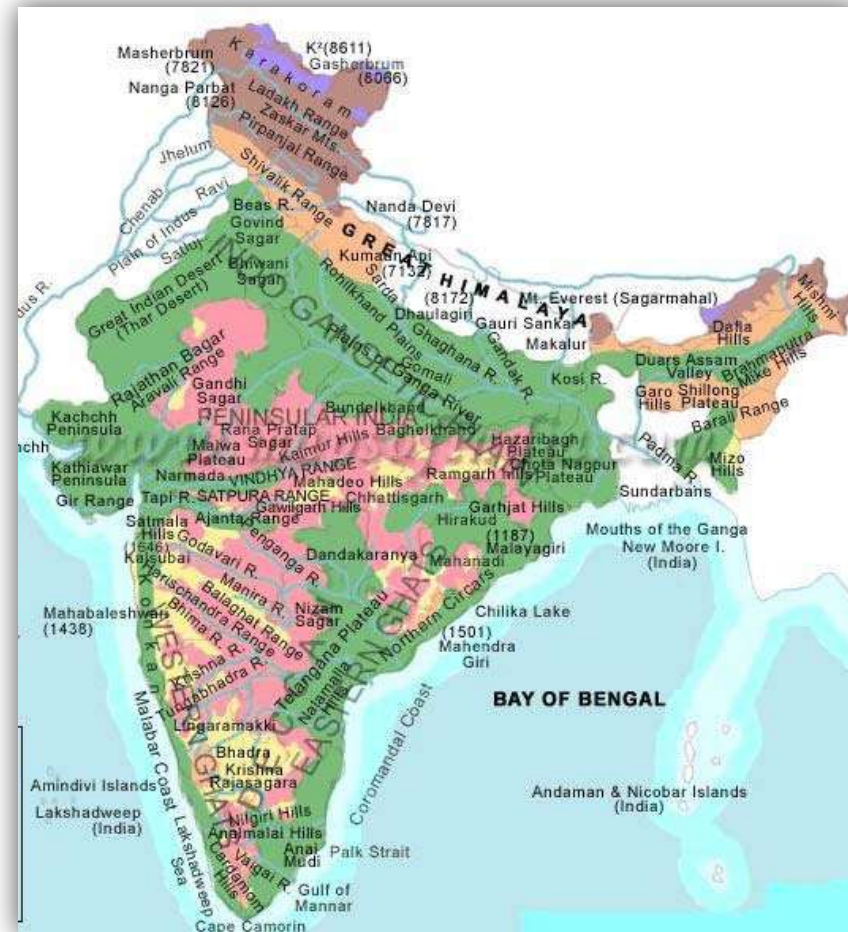
India & Agriculture

India

- Population – Over 1.21 bn.
- Second fastest growing economy (GDP growth 8.5 %)
- Geographical Area - 328 m ha

Agriculture in India (2010-11)

- Large & diverse agriculture sector
- Second largest Arable land area 162 Million hectare (after USA)
- Largest Irrigated crop area in the world (62 million hectare)
- India recorded 242 million tonnes food production



Source : Agricultural Research Data Book, 2011





UAS
Bangalore

India & Agriculture

- India is among top 3 global producers in - Wheat, Rice, Pulses, Cotton, Peanuts, Fruits & Vegetables.
- World's largest herds of buffalo and cattle Livestock population is in India - 485 Million
- World's largest producer of milk - 90.7 Million tones
- One of the largest & fastest growing poultry sectors in the world

- *From food shortages and import
to self-sufficiency and exports.*
- *From subsistence farming
to intensive and technology led cultivation.*
- *Today , India is the front ranking
producer of many crops in the world.*
- *Ushered in through the
green, white, blue and yellow revolutions*





UAS
Bangalore

Extension Systems-Preamble

- Agriculture development is a state subject
- Union Government play a major role in formulation of
 - Policies, Programmes and Budgetary Support
- India made significant achievement in food grain production by four folds in six decades
- Indian Extension systems mainstreamed rural population in the process of socio-economic development ushering Indian Green Revolution



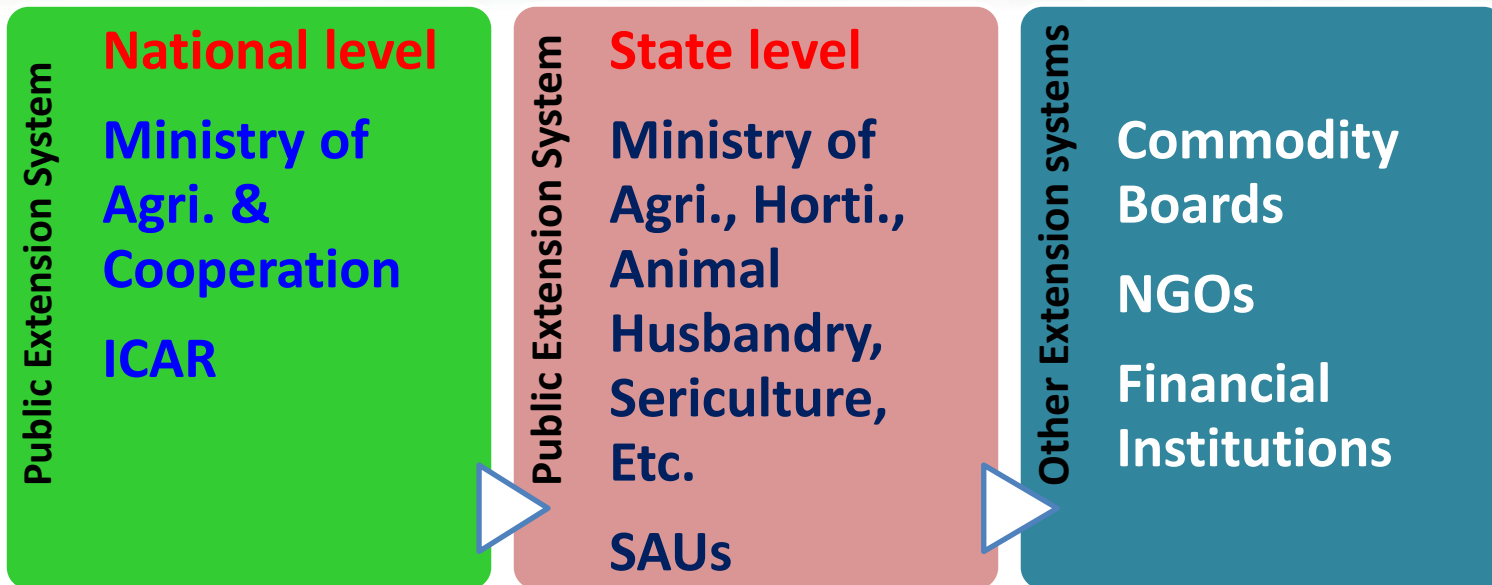
CHITAMANE





UAS
Bangalore

Extension Systems-Preamble



- **Indian Council of Agricultural Research (ICAR) is an apex body at the national level**
 - to evolve effective Transfer of Technology (TOT) models.
- **State Agricultural Universities (SAUs) come out with viable models that can be replicated through existing extension machinery besides implementing models evolved by ICAR system.**





UAS
Bangalore

Public Extension – Post Independence

- The first planned attempt
 - educated responsive farmers to take up improved methods of farming across the country
 - Community Development Programme, 1952
 - National Extension Service, 1953
- Area-Based Special Programmes
 - trained farmers on high yielding varieties and improved methods of farming to back up these programs
 - Intensive Agricultural District Programme, 1960
 - Intensive Agriculture Area Programme, 1964
 - High Yielding Varieties Programme, 1966
 - Farmers Training Centers, 1967
- The cumulative effect of these programs resulted in usher in '**Green Revolution**' in Indian agriculture during late 1970s.





UAS
Bangalore

1970s

- Area based programs widened gap between resource rich and resource poor farmers
- Hence, **client-based programs** were introduced
 - to enable resource poor farmers to take benefit of improved farm technology
 - Small Farmers Development Agency (SFAC, 1969)
 - Marginal Farmers and Agricultural Labourers Programme (MFAL, 1969)
 - District Rural Development Agency/Society (DRDA, 1976),
 - Integrated Rural Development Programme (IRDP, 1978) and
 - Lab to Land Programme sponsored by ICAR (LLP, 1979)
- improved the socio-economic conditions of beneficiaries

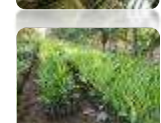




UAS
Bangalore

1970s

- In early 1970s there were
 - dissipation of extension workers' energies on low priority tasks
 - lack of clear line of command &
 - Lower agricultural knowledge and skill of extension functionaries.
- Hence to reform and strengthen, reorganized extension system
Training & Visit was introduced





UAS
Bangalore

Training & Visit System

- Introduced in 1974 with world bank assistance
- **Training of extension personnel**
 1. University scientists trained **middle level officers (SMSs)** in the monthly workshops
 2. SMSs trained grass root level **extension functionaries** in the fortnightly meetings
- **Regular field Visits**
 - To transfer Knowledge and skill for **contact farmers**
 - These contact farmers shared to **10-15 fellow farmers**
- **In 1990s, strategic changes happened**
 - at present bimonthly workshops and Zonal Research and Extension Programmes (ZREP) are conducted in majority of the states
 - T&V-D, BBES, etc were introduced by state governments





UAS
Bangalore

Agricultural Technology Management Agency (ATMA)

- Introduced by **MANAGE** 1998 in each 4 districts in 7 states
 - Now implemented by GOI in 567 Districts (27 States and 2 UTs)
- Registered society of key stakeholders & Decentralized institutional arrangement at district level
 - To reach farmers in varied agro-climatic zones & varying socio-economic status
 - bottom-up and farming system approach
 - effective integration and resource allocation
- Preparation & implementation of Strategic Research and Extension Plan (SREP) of the district
 - detailed analysis of existing farming systems
 - research-extension gaps
 - prioritizes the research-extension strategies



CHINTAMANI





UAS
Bangalore

State Development Departments

- **State Department of Agriculture**

- Implements both central and state programmes
- Serves as nodal agency for ATMA implementation by coordinating and integrating other departments

- **Raitha Samparka Kendras (RSKs)**

- introduced by Govt. of Karnataka in 2000
- Providing extension services at hobli (block) level (745 RSKs)

- **Features**

- updated information on crop production and marketing
- facilitate on the spot agricultural inputs & testing agricultural materials,
- forum of interface with public and private technologies and inputs





UAS
Bangalore

ICAR / SAU Systems

➤ Major Programmes

- National Demonstrations, 1964
- Operational Research Projects, 1975
- Lab-to-Land programme, 1979
- Institution Village Linkage Programme, 1995
- National Agricultural Technology Project, 1998
- National Agricultural Innovation Project, 2006

➤ Extension system includes

- ICAR institutes, SAUs, KVKs (611), Trainers Training Center (10), ATICs (44), NGOs, etc.

➤ Major Extension activities

- Farmer's training
- Training program for In Service Personnel, Model training courses
- Frontline demonstration (new technologies) through training and field days, campaigns
- State/regional/national/fair, exhibitions and awards
- Exposure visits
- Kisan Call Centres
- ICT and mobile SMSs
- Publications brochures
- Mass media, Audio video films.





UAS
Bangalore

KVKs (Farm Science Centres)

- **Innovative institution of ICAR at district level**
 - started in 1974 and grown as large network (611 KVKs)
 - administered by ICAR institutes / SAUs / Deemed Universities / NGOs / SDA
- **KVKs play a vital role through**
 - on farm testings
 - frontline demonstrations
 - need based training programmes for the benefit of farmers and farm women, rural youths and extension personnel
 - creating awareness through extension programmes
 - Production of Critical and quality inputs
 - Agricultural Knowledge and Resource Centres
- **KVKs have made dent and become part of decentralized planning & implementation**
- **Studies made by internal and external agencies indicated significant contribution of KVKs**
 - In imparting the knowledge and adoption of improved practices and enhancing productivity levels.





UAS
Bangalore

SAUs – UAS Bangalore

- SAUs extension activities vary from state to state (56)
- UAS Bangalore (1964) is undertaking TOT through
 - Krishi Vigyan Kendras (KVKs), Extension Education Units, Farmers Training Institute, Bakery Training Unit, Staff Training Unit, Agriculture Technology Information Centre
- Organizing a variety of extension educational activities
 - Farm trials, demonstrations, meetings, discussions, conventions, training programmes, farmers field schools, field days, krishi melas, Agricultural science museum, exhibitions, agricultural campaigns, educational tours, exposure visits, diagnostics visits, farm advisory services, etc





UAS
Bangalore

SAUs – UAS Bangalore

- The SAUs publish extension literature in local languages
 - books, package of practices, booklets, folders, and leaflets
- Expert Centre (1) and Village Resources Centres (11) setup with ISRO collaboration
 - Interaction of farmers with experts through video conferencing
- Mobile message services from Krishi Vigyan Kendras and Kissan Call Centre in ATIC
 - providing timely information like weather and market information





UAS
Bangalore

Para Extension Services

- **Commodity Boards**
 - Extending commodity specific technical know-how to the farmers (Coffee board, Spice Board, Tobacco board, Coconut Development Board etc)
- **Financial institutions**
 - provide assistance in preparation of agriculture project proposals
- **Agricultural input agencies**
 - besides providing critical inputs sponsor/organize training programme to educate farming community
- **Print and electronic media**
 - disseminating timely information on weather, technical information and marketing information.
- **NGOs and Philanthropists**
 - rendering rural extension services





UAS
Bangalore

Conclusion & Recommendations

The existing extension systems in India is inadequate to address the present day expectations of farmers and rural people and the following recommendations are essential for sustainable development of farmers.

- **Trained man power at grass root level**
- **Addressing end to end issues**
- **Promotion of IFSD among all farmers**
- **Convergence of multiple extension agencies for effective linkage and fixing accountability**
- **Establishment of commodity based associations**
- **Replication of Innovative RBRC model**



CHINTAMANE



RURAL BIO-RESOURCE COMPLEX

- A NEW EXTENSION MODEL FOR SUSTAINABLE AGRICULTURE DEVELOPMENT



Dr.K.Narayana Gowda

Vice Chancellor

University of Agricultural Sciences

GKVK, Bangalore – 560 065



FACTORS CONTRIBUTED FOR DECLINE IN THE ECONOMY OF THE FARMERS

- **Escalation in cost of production resulting reduced profit margin**
- **Inadequate market facility and lack of scientific price for produce**
- **Inadequate information support system**
- **Decline in soil fertility and productivity**
- **Depletion of ground water and environmental degradation**
- **Division and fragmentation of land holdings**
- **Unorganized farming sector**

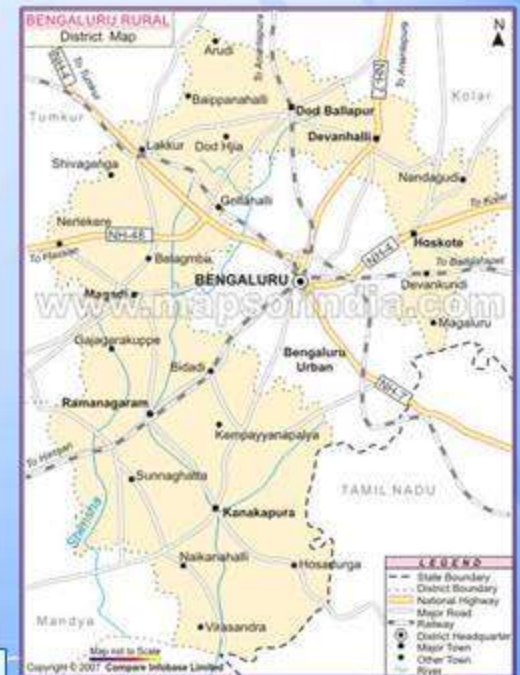


Leading to apathy, loosing interest among farmers particularly present day rural youth in farming and migration to urban areas – in extreme cases suicide

RURAL BIO-RESOURCE COMPLEX PROJECT

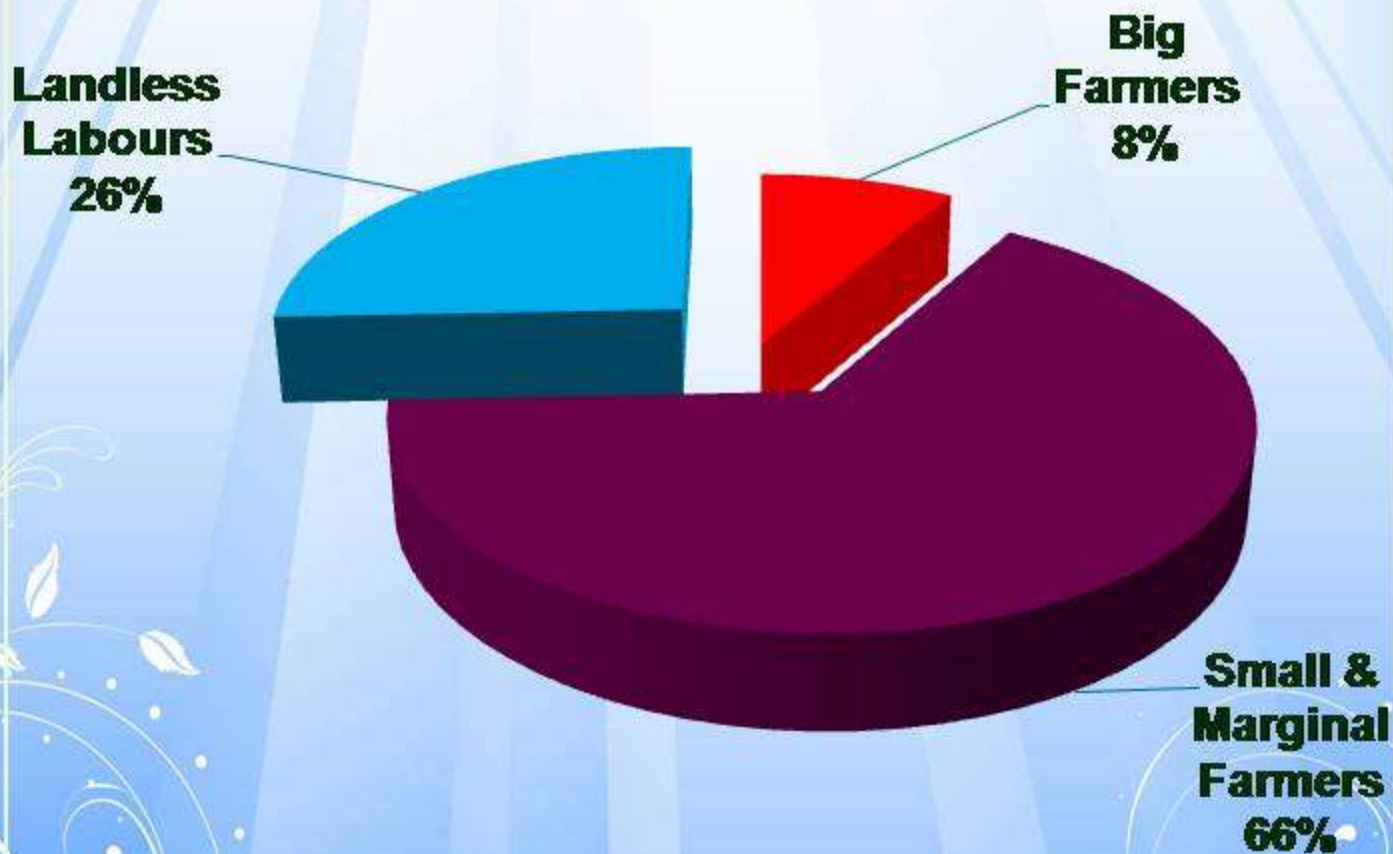
| | |
|----------------------------|---|
| Funding Institution | : DBT, Government of India |
| Budget outlay | : Rs. 4.36 Cr (expenditure – 3.86 Cr.) |
| Period | : Apr.2005 to Mar.2010 |
| Project Location | : Tubagere Hobli, Bangalore Rural District |
| Annual rainfall | : 768 mm – Eastern Dry Zone |
| No. of families | : 8340 |
| No. of Villages | : 75 |
| Geographical Area | : 13,990 ha |
| Cultivable area | : 9469 ha (82% dryland) |

Mandate: To increase income and living standard of rural families



LOCATION OF PROJECT SITE

BASELINE SURVEY



Composition of families – Project area



**SPECIAL
FEATURES OF
THE PROJECT**

**Profitable and Sustainable
Technologies**

Information Support System

**Providing Quality Critical
Inputs**

Effective Functional Linkage

Marketing Support

**Establishment of Commodity
Based Associations**

IFSD & END TO END ISSUES

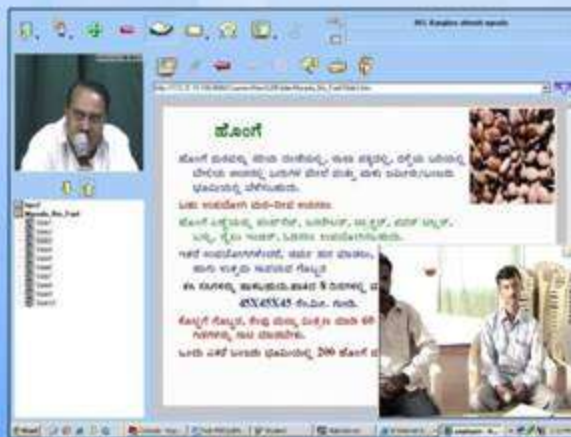
I. PROFITABLE AND SUSTAINABLE TECHNOLOGIES

- **Field crops**
 - **Ragi Cultivation**
 - **Maize cultivation**
 - **Redgram cultivation**
 - **Sunflower cultivation**
 - **Sweet corn cultivation**
 - **Pop corn cultivation**
 - **Baby corn cultivation**
- **Horticultural crops**
 - **Improved cultivation practices in banana**
 - **Drumstick cultivation**
 - **Improved French Beans production**
 - **Open field rose cultivation**
- **Animal Based Enterprises**
 - **Fish culture**
 - **Sheep rearing**
 - **Backyard poultry**
- **Natural Resource Conservation and Management**
 - **Biofuels**
 - **Organic Farming**
 - **Water use efficiency**
 - **Integrated farming system**
- **Seed Production activities**
- **Sericulture and Chawki Rearing Centre**
- **Value added products in Ragi, redgram & jackfruit**



II. INFORMATION SUPPORT SYSTEM

- **Eight young scientists (RAs, SRFs & JRFs) supported by 30 Sr. scientists.**
- **356 training programmes covering 13,841 farmers**
- **Exposure of 4,362 farmers to latest farm technologies in Krishimelas.**
- **166 teleconferences involving 99,600 farmers.**
- **Field days, exhibitions, crop campaigns and vanamahotsava**
- **Weather information to the farmers**
- **Recognition and award to farmers and farm women**



III. CRITICAL INPUTS & CUSTOM HIRE SERVICES

- **Seeds, seedlings / tissue culture banana / rose cuttings, mulberry cuttings, saplings of bio-fuel and fruit species.**
- **Bio-fertilizers, bio-pesticides, bio-control agents and earthworms**
- **Sheep, poultry birds and fish fingerlings**

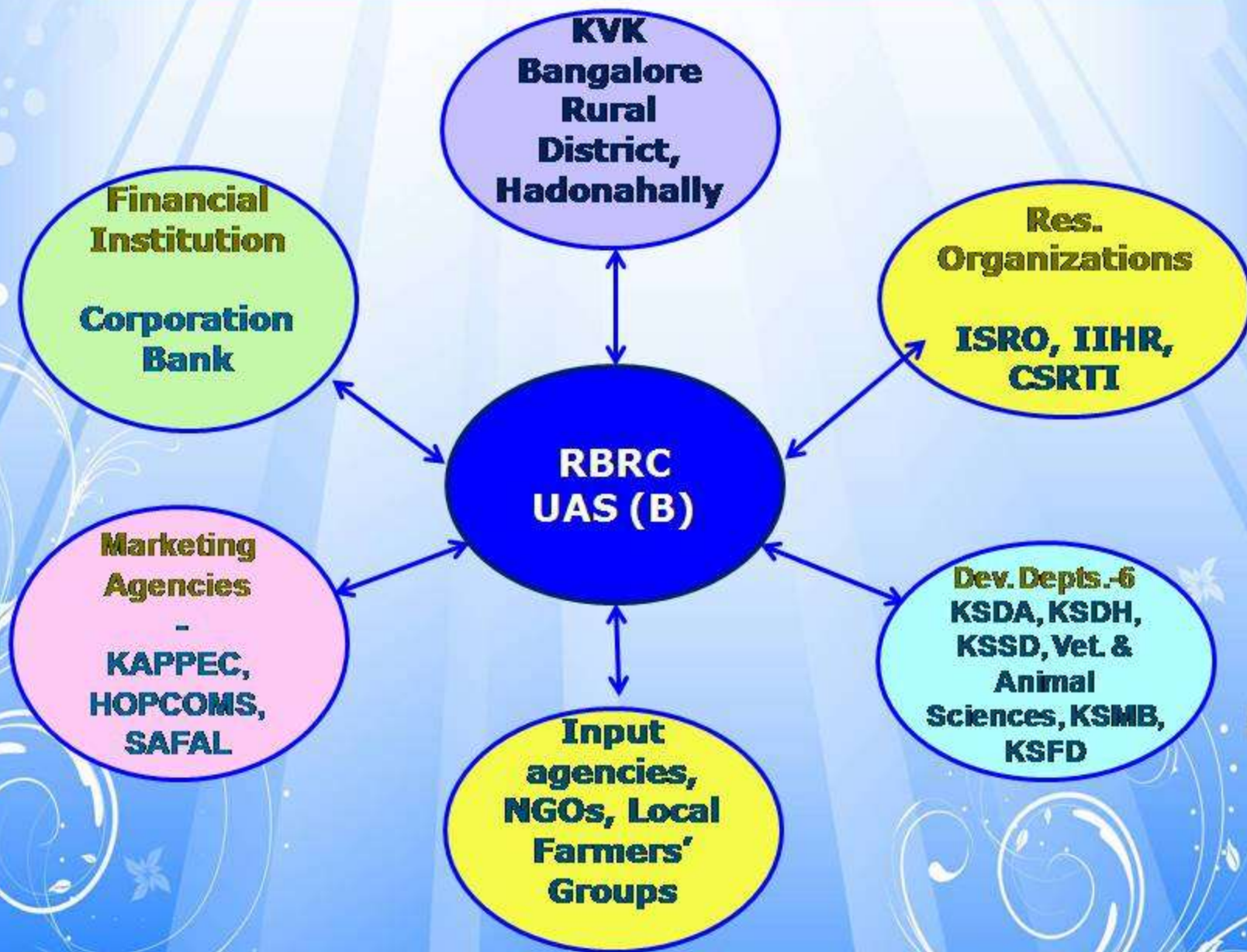


CUSTOM HIRE SERVICE

Tractors, Power tiller, Cultivator, Rotovator, Digger, Land leveler, Halube, Disc, MB-Plough, Power weeder, Power sprayer



IV. EFFECTIVE FUNCTIONAL LINKAGE (14)



CONTRIBUTIONS OF OTHER AGENCIES

| | |
|-------------------------------------|---|
| Corporation Bank | <ul style="list-style-type: none">➤ Financial assistance for Marketing complex and biofuel extraction unit➤ Instituted Corp Prasasthi Awards |
| Department of Horticulture | <ul style="list-style-type: none">➤ Subsidy for Banana, Mango, Sapota, flower crops and vermicompost pits➤ Two projects on Bhendi and Beans seed production➤ Financial assistance for national workshop on Jack. |
| Department of Agriculture | Financial assistance for promotion of organic farming and custom hire centre |
| Marketing Board | Cold storage facility |
| Department of Sericulture | Financial Assistance for CRC and Drip irrigation in mulberry |
| Department of Forest | Rejuvenation of degraded forest land and supply of forest seedlings |
| ISRO | VRC and Expert centre |
| Grama Panchayat, Hodonahalli | Office space free of cost |

V. MARKETING SUPPORT

1. Institutional Marketing Linkage

- **SAFAL**
- **APMC**
- **HPCOMS**
- **Reliance**



2. Direct Sale by Producers

- **Marketing complex**
- **Bakery**

❖ Imparting knowledge and skill on

- **Grading**
- **Packing and**
- **Branding**

❖ Timely marketing information



VI. COMMODITY BASED ASSOCIATIONS

NECESSITY

- **Small and marginal farmers**
- **Nucleus families**
- **Lesser bargaining capacity**
- **Inadequate infrastructure facilities**

OPTIONS

- **Commodity Based Associations**
- **Commodity Based Cooperative Societies**
- **Contract farming by Corporate bodies**

PREFERRED CHOICE – *Commodity Based Associations*

- ✓ **Autonomy, flexibility and transparency in the system**
- ✓ **Registered bodies under the Registrar of Firms & Societies**
- ✓ **Strengthens backward and forward linkages**
- ✓ **Promotes division of labour and specialization**
- ✓ **Resource sharing including machinery and infrastructure**
- ✓ **Provide equal opportunities for all sections of rural society**

TEN - COMMODITY BASED ASSOCIATIONS

- ✓ **Rural Biofuel Growers Association**
- ✓ **Jack Growers Association**
- ✓ **Fruits & Vegetables Growers Association**
- ✓ **Organic Farming Farmers Association**
- ✓ **Flower Growers Association**
- ✓ **Corn Growers Association**
- ✓ **Federation of Women SHGs**
- ✓ **Fish Farmers Association**
- ✓ **Agro Processors Association**
- ✓ **Chawki Rearing Centres**



RURAL BIOFUEL GROWERS ASSOCIATION

Registered : January 2007
Members : 120 direct and 5000 indirect members (49 MPCSSs)

Biofuel species: Pongamia, Neem, Mahua and Castor

Major activities :

- Production and Promotion –planting in individual and community holdings
- Procurement of seeds through MPCSSs
- Processing - *Rural Biofuel Processing Unit*
- Marketing - local farmers, KSRTC, UASB



RURAL BIOFUEL PROCESSING UNIT

| | |
|-----------------------------|---|
| Started | : March 2009 |
| Establishment Cost | : 10 lakhs (2 + 2 + 6) |
| Crushing capacity | : 1 ton seeds / day |
| Products | : Oil and cake |
| Annual crushing | : 100 tons |
| Annual Production | : 25 tons of oil & 75 tons of cake |
| Annual turnover | : Rs.15 lakhs (net profit of Rs.3 lakhs) |
| Full time employment | : 3 Semi-skilled labours |



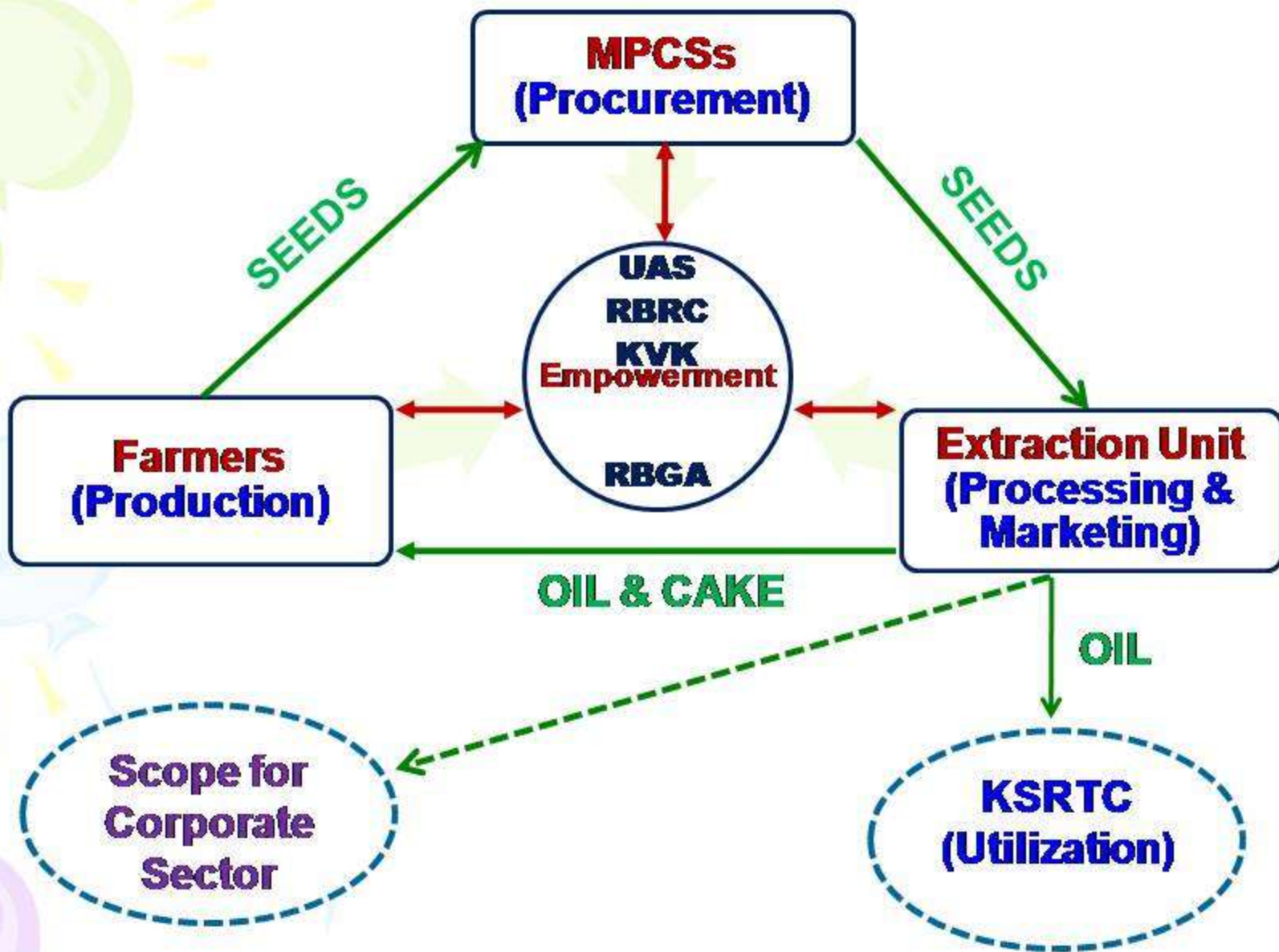
BENEFITS OF 'RBGA'

- **Availability of biofuel seedlings locally**
- **Increased area under biofuel plantation**
- **Better use of non-arable land**
- **Appropriate technology for dry land**
- **Improves ecology and environment**
- **Assured price**
- **Transparency in weighment & timely payment**
- **Additional income and employment**
- **Reduction of overhead charges**
- **Availability of quality oil and cake**
- **Cent per cent harvest of biofuel seeds**

PATH BREAKING INITIATIVES – IN KARNATAKA

- 2007 – Start of Biofuel Park at Hassan**
- 2008 – Biofuel Task Force**
- 2010 – Biofuel Development Board**
- 2011 – Budget allocation - Rs.125 Crores**

**Farmers across the country
have evinced interest in
starting such associations**



RURAL BIOFUEL GROWERS ASSOCIATION MODEL

JACK GROWERS ASSOCIATION, BANGALORE RURAL

Established : **April 2007**

Total members : **90 (indirect MPCSSs)**

Activities :

- **Nursery raising & popularization of elite jack fruit varieties**
- **Procurement through MPCSSs**
- **Marketing thro' Jack fruit melas, HOPCOMS, SAFAL, etc.**
- **Processing and Value addition**
- **Capacity building of stakeholders**



BENEFITS OF JACK GROWERS ASSOCIATION

- **Large scale production & distribution of jack seedlings**
- **Scientific harvesting – improved health of the trees**
 - **Increased consumer preference**
- **Registration of elite jack variety with NBPGR**
- **Assured price – Fruit sold at Rs.25 was sold at Rs.100**
- **Transparency in weighment and timely payment**
- **Reduction in overhead costs**
- **Increased income and employment generation**
- **Value added jack products**

MILESTONES

2007 – Jack Mela at SS Ghati temple premises

2008 – Jack Mela & Value Addition Exhibition at KVK B'lore Rural

2009 – Jack Mela at Lalbagh, Bangalore - State Capital

2010 – National Workshop on Jack at GKVK, Bangalore

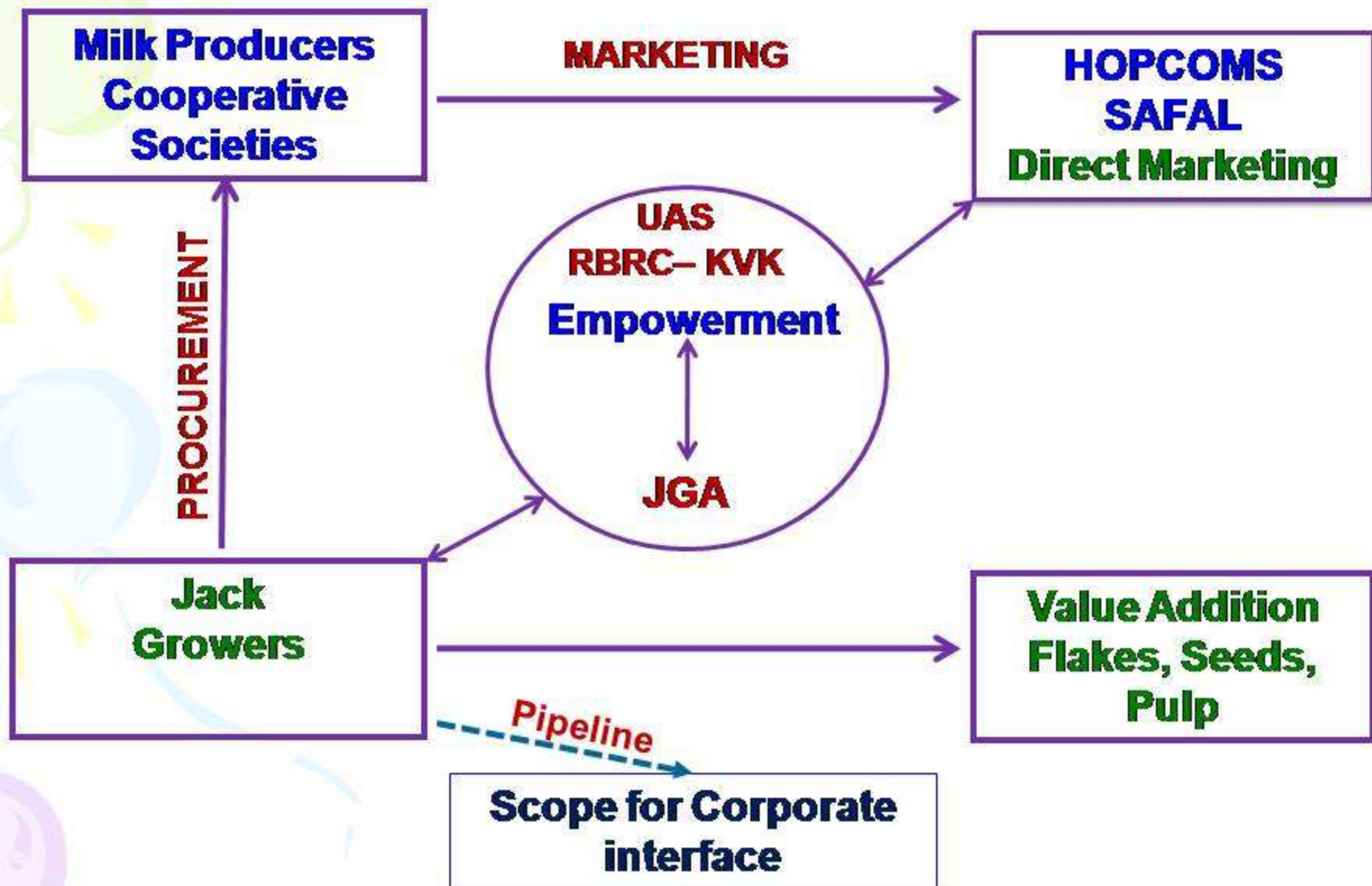
2011 – One month Jack Mela at Lalbagh , Bangalore

2012 – Proposed to develop a National Network Program on Jack

2013 – Planning for Global Workshop on Jack – GKVK, Bangalore

PATH BREAKING INITIATIVES

- **JGAs are started in different parts of Karnataka, Kerala and Tamil Nadu**
- **Litchi Growers Associations in Bihar on lines of JGA**



MODEL OF JACK GROWERS ASSOCIATION



PROCESSING AND MARKETING OF JACK FRUIT FLAKES IN JACK FRUIT MELA

FEDERATION OF WOMEN SHGs, BANGALORE RURAL

Established : Sept. 2007

Members : 272 women SHGs

Activities

- **Convergence of all SHGs under one umbrella**
- **Value addition in Ragi, Corn and Redgram**
- **Packing, Branding and Marketing of 14 VAPs**
- **Annual prodn. - 2000 kg of ragi malt with net profit of Rs.1.5 lakhs**

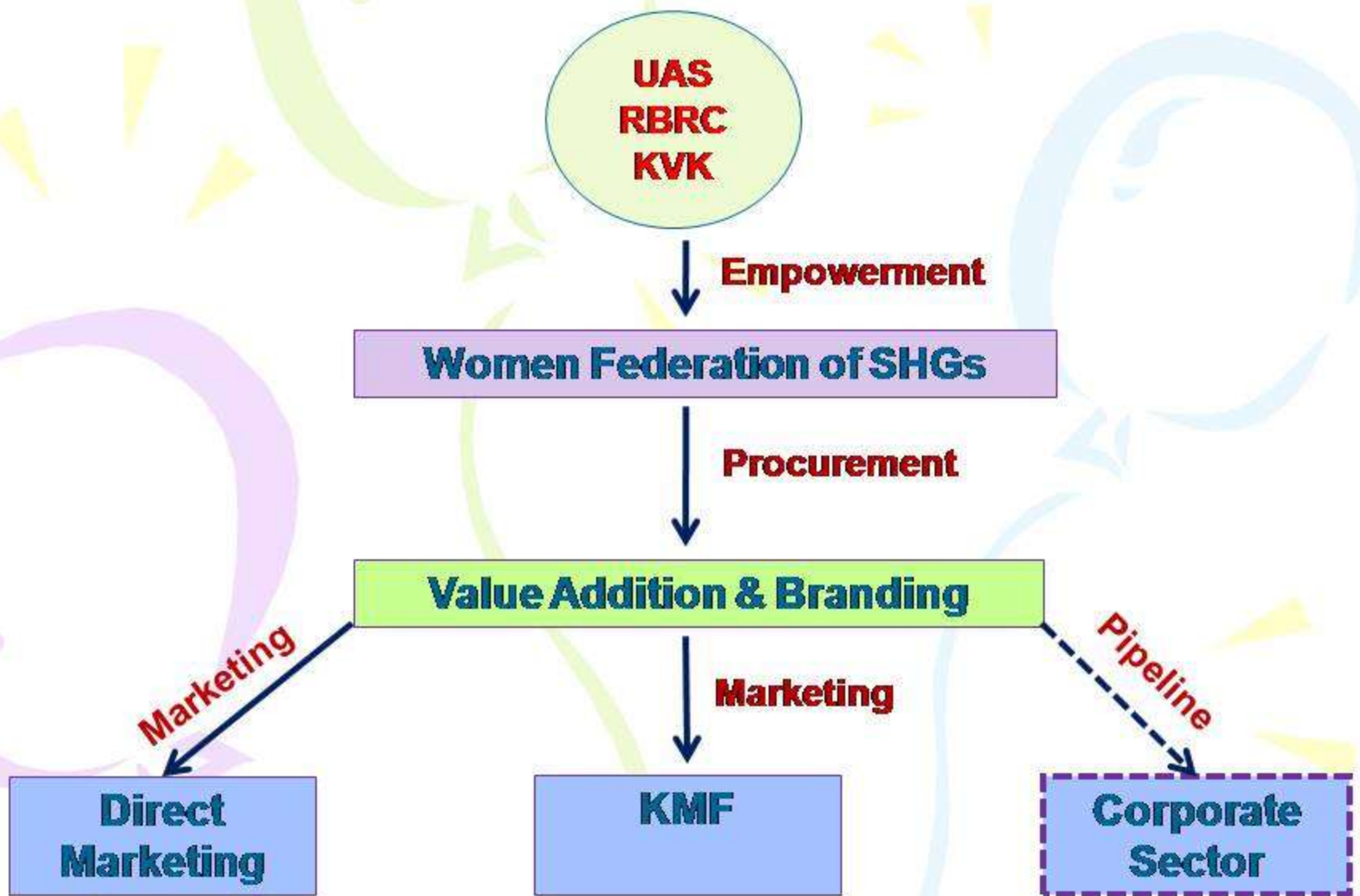


BENEFITS

- **Better use of local produce for VAPs**
- **Income and employment generation**
- **Increased use of products by rural people**

OPPORTUNITIES

- **Scope for interface between Women Federation and Corporate sector**



MODEL OF FEDERATION OF WOMEN SHGs

TUBAGERE HOBLI FRUITS AND VEGETABLES GROWERS ASSOCIATION



**Marketing Linkage with SAFAL market
(3½ to 5 tons per day)**

Similarly, 7 other farmers' organizations were started in project area



Fish Growers Association
Release of Fish Fingerlings



Sale of fresh vegetables
Hon'ble Agril. Minister - Visit

Constraints in the Promotion of CBAs

- ❑ Persuading rural people – in different proposition
- ❑ High initial investments
- ❑ Political interference
- ❑ Social and cultural differences
- ❑ Lengthy formation process



INFRASTRUCTURE FACILITIES CREATED

- **Establishment of KVK by ICAR, New Delhi**
- **VRC and Expert Centre in collaboration with ISRO**
- **Automatic Weather Station in the KVK premises**
- **Marketing Complex for Sale of VAPs**
- **Marketing Complex for the sale of Agri.-Hort. produce**
- **Two Chawki Rearing Centres.**
- **Poultry Demonstration Unit**
- **Fish Demonstration unit**
- **Two Agro-Processing Units**
- **Biofuel Extraction unit**



PROJECT ACHIEVEMENTS

- ✓ **Significant impact on knowledge, skill and attitude**
- ✓ **Optimum utilization of resources**
- ✓ **Shift in cropping pattern from low to high value dryland crops**
- ✓ **Increase in crop productivity**
- ✓ **Improved access to direct market and remunerative price**
- ✓ **Generation of additional employment**
- ✓ **Inclusive growth**
- ✓ **Improvement in social and nutritional status**
- ✓ **Retaining majority of farm youth in agriculture**
- ✓ **Three fold increase in income**
- ✓ **11 % agricultural growth rate**

SPREAD OF FARMERS ORGANIZATIONS

The project attracted variety of visitors – from within and outside the state as well as across the countries (22)



VISITORS

| Visitors Category | Outside the country | Outside the state | Within the state | Total |
|--------------------------|----------------------------|--------------------------|-------------------------|--------------|
| VIPs | - | 15 | 50 | 65 |
| Scientists | 113 | 40 | 56 | 209 |
| Farmers | - | 80 | 8230 | 8310 |
| Students | 23 | 36 | 850 | 909 |
| Total | 136 | 171 | 8786 | 9493 |

SPREAD OF TECHNOLOGY / REPLICATION OF THE MODEL

- ✓ **DBT has replicated this model in North Eastern States**
- ✓ **Litchi Growers Associations have been established in Bihar on the lines of Commodity Based Associations**
- ✓ **Karnataka Government has earmarked Rs.75 crores for replication of RBRC model in all 29 KVKs in Karnataka covering 1.25 lakh ha during 2011-12.**

RECOGNITION TO FARMERS / FARM WOMEN

A) Awards instituted by RBRC

CORP PRASASTHI AWARD

- **Two Nos. – Rs. 10,000 each**
- **Sponsored by Corporation Bank**

A) Awards to Farmers of Project Area



| Awardees | Name of the Award | Awarded by | Year |
|--|---|--|-------------|
| Smt. Channamma, Antharahalli | Best Progressive Farm Women | UAS, Bangalore | 2007 |
| Sri Sadananda, Thapasihalli | Best Progressive Farmer District Award | UAS, Bangalore | 2008 |
| Sri Sadananda Tapasihalli | National Award | IARI New Delhi | 2009 |
| Smt.Chennamma Antharahalli | Jamsetji Tata National Virtual Academy (NVA) Fellow-2009 | Sri. MS Swaminathan Research Foundation Chennai, | 2009 |
| Sri Sadananda Tapasihalli | HARVEST OF HOPE- A Tribute to the Enduring sprit of Indian farmers | Department of Agricultural Cooperation, New Delhi | 2010 |
| Sri Sadananda Tapasihalli | Krishi Pandith award – 2010 | Govt. of Karnataka | 2010 |
| Smt. Radha Balachandra, Gangasandra | Best Progressive Farm Women | UAS, Bangalore | 2011 |

Project activities in the Media

ತಪಸೀಹಳ್ಳಿಯ ಕೃಷಿ ಪಂಡಿತ ಸದಾನಂದ



ತಪಸೀಹಳ್ಳಿಯಲ್ಲಿ ಕೃಷಿ ಪಂಡಿತ ಸದಾನಂದರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ಕೃಷಿ ಸಂವಿಧಾನದ ಅಧ್ಯಯನ ಕಾರ್ಯಕ್ರಮ ನಡೆಯಿತು. ಸದಾನಂದರು ಕೃಷಿ ಸಂವಿಧಾನದ ಅಗತ್ಯತೆ ಮತ್ತು ಅದರ ಅನ್ವಯಗಳನ್ನು ವಿವರಿಸಿದರು. ಕೃಷಿ ಸಂವಿಧಾನದ ಅಡಿಯಲ್ಲಿ ಕೃಷಿ ಸಂಸ್ಥೆಗಳನ್ನು ಸುಗಮವಾಗಿ ರಚಿಸುವುದು ಮತ್ತು ಅವುಗಳನ್ನು ಸುಗಮವಾಗಿ ನಡೆಸುವುದು ಸದಾನಂದರ ಅಭಿಪ್ರಾಯವಾಗಿತ್ತು.

ಪರೀಕ್ಷಾ ಭಯ ನಿವಾರಣೆ ತರಬೇತಿ

ಪರೀಕ್ಷಾ ಭಯ ನಿವಾರಣೆ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮ ನಡೆಯಿತು. ಕೃಷಿ ಪಂಡಿತ ಸದಾನಂದರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ಕೃಷಿ ಸಂವಿಧಾನದ ಅಧ್ಯಯನ ಕಾರ್ಯಕ್ರಮ ನಡೆಯಿತು. ಸದಾನಂದರು ಕೃಷಿ ಸಂವಿಧಾನದ ಅಗತ್ಯತೆ ಮತ್ತು ಅದರ ಅನ್ವಯಗಳನ್ನು ವಿವರಿಸಿದರು. ಕೃಷಿ ಸಂವಿಧಾನದ ಅಡಿಯಲ್ಲಿ ಕೃಷಿ ಸಂಸ್ಥೆಗಳನ್ನು ಸುಗಮವಾಗಿ ರಚಿಸುವುದು ಮತ್ತು ಅವುಗಳನ್ನು ಸುಗಮವಾಗಿ ನಡೆಸುವುದು ಸದಾನಂದರ ಅಭಿಪ್ರಾಯವಾಗಿತ್ತು.

The Hindu
FRIDAY, APRIL 21, 2006

A silent green revolution in Doddaballapur villages

75 villages register 11 per cent agricultural growth rate

By Sushil Kumar

BANGALORE: Seven-and-a-half decades after the green revolution in India, Doddaballapur taluk has registered a robust agricultural growth rate of about 11 per cent. This has attracted attention on the agriculture sector in the state and the country has grown ready for a little more a year now to the past few years.

These villages with 8,000 farmers under Union Territory Public have witnessed a high growth rate after their inclusion in the Rural Rejuvenation Complex pilot project of the Union Department of Agriculture (University of Agricultural Sciences, Bangalore) for its on-going conditions to increase their income levels.

The Rejuvenation Complex Project coordinator and agriculture extension officer, Narayana Gowda told "The Hindu" that these villages had been registered with a growth rate since 2000 after the project was initiated in 1998.

"That the Union, which the growth rate shows down to 10 per cent every year, has now reached the 11 per cent in the last three years. It is a remarkable feat," he said.

He said that the reason of the high growth rate of every household in these villages had included the strong growth rate by taking into consideration the average yield of every household from all agricultural operations.

"We have seen enough on independent assessment by an outside agency," he noted.

"The multiple area covering farmers here have reported from the 75 villages after the launch of the project. Millions of farmers in other areas of work has also reported," he said, and pointed out that 68.74 per cent of the farmers reported higher the project area over rural and marginal farmers and their per cent families had also benefited.

While traditional income sources such as agriculture and animal husbandry were the main sources of income, the farmers in the villages started to diversify into other sectors such as horticulture, dairy and fish farming. The average yield per hectare of land has increased from 10 to 15 tonnes of wheat in the villages. The average yield per hectare of land has increased from 10 to 15 tonnes of wheat in the villages. The average yield per hectare of land has increased from 10 to 15 tonnes of wheat in the villages.

SUCCESS STORY

How the worm turned for him

Known as an earthworm

By Sushil Kumar

BANGALORE: A farmer in Doddaballapur taluk has turned from an earthworm to a success story. The farmer, who was known as an earthworm, has now become a success story. The farmer, who was known as an earthworm, has now become a success story. The farmer, who was known as an earthworm, has now become a success story.



The farmer, who was known as an earthworm, has now become a success story. The farmer, who was known as an earthworm, has now become a success story. The farmer, who was known as an earthworm, has now become a success story.

ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ



ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ. ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ. ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ. ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ. ಸದಾನಂದರ ಸಾವಯವ ಲೋಕ.

ಬದುಕಿನ ದೆಸೆ ಬದಲಿಸಿದ ಎರೆಹುಳು, ಜೇನು ಕೃಷಿ



ಬದುಕಿನ ದೆಸೆ ಬದಲಿಸಿದ ಎರೆಹುಳು, ಜೇನು ಕೃಷಿ. ಬದುಕಿನ ದೆಸೆ ಬದಲಿಸಿದ ಎರೆಹುಳು, ಜೇನು ಕೃಷಿ. ಬದುಕಿನ ದೆಸೆ ಬದಲಿಸಿದ ಎರೆಹುಳು, ಜೇನು ಕೃಷಿ. ಬದುಕಿನ ದೆಸೆ ಬದಲಿಸಿದ ಎರೆಹುಳು, ಜೇನು ಕೃಷಿ.

CONSTRAINTS OBSERVED IN THE IMPLEMENTATION OF THE PROJÉT

- **Frequent changes in the project staff**
- **Political interference**
- **Crop insurance not in line with local needs**
- **Difficulties in availing the benefits of line departments**
- **Inadequacy in the availability of quality critical inputs**
- **Limited preparedness to address drought situations**
- **Labour problem**

RBRC MODEL

STRATEGIES

Promotion of Appropriate Interventions

Effective Information Support System

Effective Functional Linkage

Marketing support

Providing Critical Inputs

Commodity Based Associations

INITIAL BENEFITS

Increased Productivity
Increased Income
Employment Generation

LONG TERM BENEFITS

Nutritional Intake

Better Education

Improved Housing

Leadership

Social Status

Social Mobility

Communication Skills

Improved Standard of Living



SUMMARY

In a span of five years, the project was able to achieve:

- ✓ **Eleven per cent agricultural growth all through five years**
- ✓ **Three fold increase in income of farmers**
- ✓ **Generation of 2.52 lakh additional employment**
- ✓ **Holding back majority of farm youth in agriculture.**

Acknowledgement

UAS, Bangalore Acknowledges

- Department of Biotechnology, GOI, New Delhi
- Steering Committee, DBT, GOI, New Delhi
- Nodal Agencies / Officers
- Local leaders, farmers and landless people
- Media





THANK YOU