

# Public-Private Partnership in Agricultural Extension Management: A case study of Hoshangabad model in Madhya Pradesh

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## Introduction

Public extension system played a major role in achieving the Green Revolution in India during 1960s. Since then the nature and scope of agricultural extension had undergone fundamental changes to address the challenges from time to time. But it is not sure that the fruits and benefits of public agricultural extension services fully reach the people at the grassroots level. It is very often recognised that the public extension system failed to accomplish its desired objectives and meet people's expectations.

Public extension system suffers from several problems. Public extension services have been widely viewed as supply driven rather than demand driven. Commercialization of agriculture gave rise to specialized client and demand for location specific extension services which are not catered by public extension system. Extension services provided are usually general in nature rather than specific and intensive. Moreover, public extension deals with a large area and large population and diverse cropping patterns which increases need for extra efforts for delivery of services. Inadequate allocation of funds and improper organizational structure are some of the important reasons for poor quality of the extension services. In addition to this, public extension cadre suffers from several problems. Most of the village level extension workers are not technically qualified which result in inefficient extension services.

Changing roles and additional responsibilities of extension cadre is another major concern which causes dilution of extension services. Besides these, lack of motivation, lack of professionalism and lack of latest knowledge

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among extension functionaries have been important challenges which need to be addressed.

The monopoly of public extension sector came under increasing threat in the 1980's as many started questioning the desirability of this system on economic and efficiency grounds. Increasing restraints on government finances and emergence of new extension arrangements offered by the private and voluntary sector have accelerated the process of limiting the role of government in extension leading to genesis of private extension services. In general private extension focus on providing client specific or need based extension services based on payment or free of cost. Usually it brings new technologies and aims at maximizing profitability at farmers level. According to Saravanan (2001) private extension will concentrate on the commercial resourceful big farmers, favourable environment areas such as irrigated, high fertile soil and commercial crop growing areas. According to him private extension will focus mostly on 'profit maximization role'.

Inadequate manpower and limited networking are the characteristics of private extension system. In contrast, the public extension has the strength of trained and organized manpower with wide network supported by infrastructure. Both the public and private extension systems have specific strengths that can be harnessed to address the future challenges of agriculture sector. According to Desai (2005) the future scenario exhibits emergence of multiple layers of farmers producing multiple commodities to meet the demands from multiple markets. To cater to these requirements, multiple organizations involved in research, extension and marketing in public and private sectors have to be integrated through specific MoUs on public-private partnership mode. Hence it is necessary to harness the strengths of both public and private players to provide effective extension services to the farmers. This paved way to conceptualize the Public-Private Partnership (PPP) in Agricultural Extension Management in tune with the similar type of efforts in other development sectors.

The concept of PPP in Agricultural Extension Management was first introduced in Hoshangabad district of Madhya Pradesh during 2001. To do

this the Department of Agriculture, Government of Madhya Pradesh and Dhanuka Group joined hands. The National Institute of Agricultural Extension Management (MANAGE) provided the conceptual framework and facilitated this PPP initiative. The Hoshangabad Model has been identified as the first case of PPP in Agricultural Extension Management and shared on different platforms, which aimed at promotion of Public-Private Partnership in Extension. The Hoshangabad Model generated a lot of interest among the policy makers, extension managers and agri-business companies to know the process of operationalisation of PPP in Agricultural Extension Management with a view to adopt it on a wider scale. In view of this, the present case study is conducted with an aim to answer the following questions:

1. What is the process of operationalisation of Public-Private Partnership (PPP) in Agricultural Extension Management
2. How is the process of implementation of various activities signed under the Memorandum of Understanding (MoU) in the Hoshangabad Model.
3. How to upscale the Public-Private Partnership in Agricultural Extension Management based on the experiences of Hoshangabad Model.

Based on the analysis of Hoshangabad model, this paper presents the process of implementation of PPP and draws lessons that can be of interest to the academicians, policy makers and practitioners for upscaling PPP in agricultural extension management.

## **Methodology**

The present study employed case study method. According to Gerring (2007), traditionally the case study has been associated with qualitative methods of analysis. According to him the notion of case study is sometimes employed in a broad rubric covering a host of non-quantitative approaches – ethnographic, clinical, anecdotal, participant-observation, process-tracing, historical, textual, field research and so forth. It is a particular method of qualitative research rather than using large samples and following a rigid protocol to examine a limited number of variables. It involves an in-depth, longitudinal examination of a single instance or event.

A case provides a systematic way of looking at events, collecting data, analyzing information, and reporting the results.

Hence, the present study employed the case study method to find out the process and implementation of Public-Private Partnership in Agricultural Extension in Hoshangabad. Research techniques like Observation, One-to-One Discussions and Focus Group Discussions were used to elicit information from the field, key individuals and the farmers. Secondary data was collected from the records of the Department of Agriculture and Dhanuka Group to examine the activities taken up at the field level.

The study was conducted in seven blocks of Hoshangabad district viz, Hoshangabad, Babai, Kesala, Seoni Malwa, Sohagpur, Bankheri and Pipariya wherein the PPP programme was implemented. Detailed discussions were held with the Agricultural Development Officers of seven blocks to know their opinion about the partnership programme. Similarly, the opinion of seven Dhanuka Extension Officers (Dhanuka Doctors), who were associated with PPP programme, at block level was collected.

Farmers are the ultimate beneficiaries of partnership programme and their perception was felt most important in the study. Villages representing each block of the district were visited and interaction held with the farmers. Focus Group Discussions and observation methods were used to document the perception of the farmers about the partnership programme. Data for the study was primarily collected during the field visit done during July 2006.

### **Background of Public – Private Partnership**

**National Institute of Agricultural Extension Management (MANAGE)**, Hyderabad had organized a national seminar on Private Extension during 2001. This national consultation established the need for Private Extension in Indian context. Subsequent training programs conducted by MANAGE attracted the attention of State Agriculture Department. Agriculture Department of Madhya Pradesh was first to volunteer to pilot test the first Public-Private Partnership model in Agriculture Extension Management in the country. MANAGE organized an orientation workshop on 24th Aug 2001 at the Academy of

Administration in Bhopal and discussed the key issues viz., private extension potential; private extension policy, private extension models/ approaches; Memorandum of Understanding (MoU) and linkages between private and public extension. Agri-business companies, Department of Agriculture and Agricultural Institutes participated in the workshop. As follow up action, Dhanuka Group was identified as private partner for pilot project in Hoshangabad District, Draft Private Extension Policy was worked out, MoU was finalized and the pilot project was launched on 5th November 2001.

**Department of Agriculture, Government of Madhya Pradesh** is the prime government department, which undertake agricultural development activities including extension services in the state. The important services provided by the Department include:

- ◆ Extension Services for transformation of latest technologies from university & research station to the farmers field;
- ◆ Distribution of all inputs like Seed, plantation material, fertilizers, Bio fertilizers, implements etc.
- ◆ Technical know how regarding the various package of practices.
- ◆ Subsidized distribution of implements like Sprinklers & irrigation devices.
- ◆ Providing Soil advisory through 20 Soil testing laboratories which are located in various parts of the state.
- ◆ Providing quality control facilities for seeds, fertilizer and plant protection chemicals.
- ◆ Providing subsidy on tubewells, electric pumps etc. to the farmers for development of irrigation resources.
- ◆ Training to the farmers in various farm activities.
- ◆ Providing marketing facilities to the farmers for their produces.

The Department has technically qualified manpower at district, block and village level. Director of Agriculture heads the Department at the state level. At the district level Deputy Director of Agriculture (DDA) heads the department with the support of Senior Agricultural Development Officers

(SADO) at the Block level and Rural Agricultural Extension Officers (RAEO) at village level.

**Dhanuka Group:** Dhanuka Group is engaged in marketing of pesticides, bulk drugs, drug intermediates, seed production, marketing of eco-friendly pesticides, bio-fertilizers, and product performance enhancers. It has a research and development department and is involved in manufacturing and field activities. It has a wide distribution network of over 28 sales offices over 15000 retail channels supported by more than 500 professionals all over the country. It has an annual turn over of around Rs.350 crores. It has international collaboration with many reputed research institutes.

### **Memorandum of Understanding (MoU)**

As per the MoU, the Department of Agriculture, Madhya Pradesh and Dhanuka Group will work together to increase the productivity of the farmers and uplift their standard of living by ensuring the following activities:

1. Providing soil testing and advisory services.
2. Arranging training programmes for the farmers and extension functionaries.
3. Organising farmer's visits.
4. Organising demonstration of new and improved technologies
5. Promoting organic farming
6. Developing Cyber kiosks / Cyber Dhabas
7. Organizing Agriculture fortnights and exhibitions
8. Providing linkage with markets for effective sale of agriculture produce.
9. Printing and dissemination of agriculture literature.
10. Awards to outstanding farmers.
11. Producing films on success stories.
12. Encouraging cooperatives and Self Help Groups.
13. Ensuring joint participatory monitoring and evaluation.

14. Undertaking infrastructure development.
15. Strategic Research and Extension Plans based on agro climatic zone and conditions.
16. Ensuring participation in the market of agriculture produce.
17. Ensuring production of seeds of high yielding varieties of different crops and ensuring their availability.
18. Utilizing additional funds generated by extension activities in agriculture development work.

### **Process of Public-Private-Partnership (PPP)**

**1. Soil testing and advisory service:** As per the MoU, the DoA handed over Powerkheda soil testing laboratory to Dhanuka group for a period of two years with effect from 5th November 2001 to 4th November 2003 and supplied chemicals free of cost for the analysis of the soil samples during MoU period. DoA handed over Atomic Absorption Spectro Photometer, Ph Meter, Electric Conductivity Meter, Flame Photo Meter, Colory Meter, one computer and other lab equipments. It withdrew all the 16 staff members who were working in the laboratory before handing over the lab to Dhanuka Group.

After taking over the Lab, Dhanuka Group has repaired at their own cost and maintained the lab for the entire period of MoU with their own manpower. Dhanuka Group recruited one Lab In-Charge scientist, two Technicians / Chemists and one Lab Assistant. Dhanuka has also met the cost of salaries of employees, electricity charges, telephone charges etc. They also submitted monthly progress reports regularly to DoA during MoU period. The Department supplied the chemicals used for testing the soil samples.

The target for collection and testing of soil samples was fixed in the joint meetings. The soil samples were collected and deposited by three ways i.e., by the Rural Agricultural Extension Officers of DoA at grassroots level as well as Dhanuka Extension Officers through their dealer networks spread throughout the blocks of district. Farmer themselves deposited the soil samples directly at soil testing laboratory. Rural Agricultural Extension Officers collected soil

samples along with information sheet and the fee of Rs 5/- per sample for general category and Rs 3/- from SC/ST for analysis of NPK. For micronutrient analysis Rs 40/- from general category and Rs 30/- from SC/ST with due acknowledgment were collected. The soil samples along with money were deposited in the SADOs office. Arrangements were made to deposit the soil samples and remitting money to the lab directly on their own or through Dhanuka networks. Soil testing was carried out on first come first serve basis well within reasonable time.

The results of soil testing in the form of report along with advice were dispatched to the respective SADOs office, Soil Sample Collection Centres of Dhanuka networks and farmers who submitted the samples directly to the lab. The RAEOs of respective blocks collected results from the SADOs office and distributed to the farmers. Similarly, the Dhanuka networks distributed the results to the farmers through Dhanuka Doctors.

Among 18 activities under the MoU, soil testing programme was most successful and well received at all levels by both the partners and farmers. This is due to the fact that the functional guidelines were clearly defined resulting in role clarity among the partners. Introduction of paid extension in soil advisory built up accountability in extension delivery mechanism. Farmers also expressed that they gained more awareness about the importance of soil testing through the partnership programme.

**2. Organisation of training programmes:** Training was organised for the farmers and extension officers at Block and village levels. Under the MoU period, 170 joint training programmes on various agricultural activities were organized at Block level and 1939 Village level trainings were conducted with the total participation of 48473 farmers. Also 33 training programmes were jointly organized for extension officers with total participation 653 extension officers. The DOA, Dhanuka Group and District Training Centre were involved in training need assessment, selection of training topics, mobilization of farmers, involvement of resource persons, location of trainings, fund allocations etc. As per the plan, the training programmes were conducted with prior intimation to the farmers.

The farmers were mobilized by both the RAEO of the Department and Dhanuka Extension Officers. Both DOA and Dhanuka Group arranged experts/resource persons from Agricultural universities, research stations and Krishi Vigyan Kendras (KVKs) in addition to their own officers. It was observed that farmers still remember names of some resource persons who gave excellent guidance in the training programmes during MoU period. Progressive farmers were also utilized in the training programmes. In some cases Dhanuka had arranged resource persons from other places and met their expenditure. DOA and Dhanuka Group planned training programmes jointly in collaboration with the Training Centre. It was observed that the partnership could not contribute to significant increase in the number of training programmes. However, quality was increased due to proper planning of training programmes, coordination among partners, involvement of right external resource persons and improved logistics.

**3. Organisation of farmers' study tours:** Under this joint activity, farmers were taken to study tours both within the district and to other districts. A total of 41 farmers were taken for exposure trips on organic farming *Sangosthi* at Bhopal and organic revolution *Samaroh* at Indore. In addition to these study tours, about 1000 farmers were taken to the wheat day at Powarkheda and 652 farmers to Kisan Sammelan and Mandi in Itarsi within the district.

Most of the farmers' study tours were organized by the Department of Agriculture. DOA was chiefly responsible for planning, selection of places and mobilization of farmers. Dhanuka was also involved in the selection of farmers and provided transportation and refreshment to the beneficiaries on few occasions.

The MoU signed authorizes Dhanuka Group to conduct tours as the DOA provides funds and participants. The activities were totally controlled by the DOA. The Dhanuka Group limited its role only to arrange logistics and meet expenditure towards food and other miscellaneous works only on few occasions. It was found that Dhanuka Group provided support for the exposure visits on promotion of organic farming under the farmers study tours.

**4. Field demonstrations:** As per the MoU, the demonstrations were

conducted jointly with regard to crop improvement on wheat, soybean and chickpea by adopting all package of practices. Both the partners were jointly involved in panning, technical advice and supervision, mobilization of farmers to show the result of the demonstration. For conducting demonstrations, Dhanuka Group provided the inputs like weedicides and pesticides, whereas the DOA supplied seeds and fertilizers.

A total number of 32 demonstrations were conducted on wheat, soybean and chickpea. It was observed that there was 25% increase in yield of wheat crop, 32% in Soybean and 24% in chickpea from demonstration plots over the farmers' practices. Demonstrations under partnership focused only on three major crops instead of all the crops and all the technologies, as mentioned in the MoU. In regular private extension activities the process of demonstration was totally controlled by agri-business companies for achieving commercial motives and results are always positive to ensure promotion of their products. The Public-Private Partnership mechanism will bring transparency in demonstrations and may perhaps reduce the burden of public exchequer. The demonstrations conducted under partnership mode were more transparent, credible, and effective compared to demonstrations conducted separately by public or private sector.

**5. Developing Information Centers / Cyber Extension:** As per the MoU, Dhanuka has to play a major role in establishing the information kiosks in rural areas to provide useful information to farmers. But this activity was not initiated. Though the information kiosks were not established, the Dhanuka Group and department have made use of SATCOM facility established by the Department of Agriculture at Powarkheda for extension purpose. Under this, both Dhanuka and DOA jointly mobilized 1353 farmers for 69 SATCOM training programmes. The expertise and technical advises under SATCOM programme were given by both DOA and Dhanuka.

Both Department and Dhanuka Group could not give any reasons for not establishing the information kiosk as per the MoU. However, farmers underlined the importance of developing information centers / cyber extension Centers at village level. Few of the progressive farmers emphasized the Information and Communication Technology (ICT) initiatives in the village by

different private service providers like *e-choupal* that exists in their district. These information centers provides latest agricultural information, market prices and enable them to sell the produce at premium prices. They indicated that efforts should be made to establish information centers in villages through partnership.

The discussion with farmers reveal that there is a great need of information centers / cyber dhaba at village level providing customized information. However, no activity was initiated under this category. It was also learnt that there are successful private initiatives on information kiosks existing in Madhya Pradesh. If necessary, there is scope to include third partner (Information Technology) in this process to provide this specialized extension services.

#### **6. Agriculture Exhibitions and Kisan Pakhwara (fortnight campaign):**

As per the MoU, 4 district level and 13 block level campaigns / agricultural exhibitions were jointly organized. Exhibitions and Krishi Pakhwara were mainly organized by the Department of Agriculture. Venue of programmes, time, number of campaigns and exhibitions, fund allocation were decided by the Department alone whereas the publicity, mobilization of farmers, and transportation were arranged jointly by the Department and Dhanuka. Dhanuka had put up stalls and displayed their products in exhibitions along with other Agriculture and line departments. In every Krishi Pakhwara both the partners made technical guidance available.

Seasonal problems of the farmers were addressed through Krishi Pakhwara and agricultural exhibitions. New technologies were disseminated to large number of farmers. These exhibitions helped Dhanuka to popularize their products. Farmers mentioned that they had an opportunity to interact with experts from both sides and share experiences with fellow farmers.

It was observed that there is lack of role clarity in the MoU with regard to this activity. The Department had solely managed the planning and execution of exhibitions and Krishi Pakhwara while Dhanuka Groups' role was confined to providing partial logistic support.

**7. Arranging inputs as per need by establishing agriculture super markets:** There was no arrangement of inputs through establishment of

Agricultural Super Market under partnership mode as per the MoU. However, on only one instance an attempt has been made to supply inputs. There was an acute shortage of soybean crop during Kharif 2002. Department of agriculture and district administration persuaded the Dhanuka Group to distribute the required seeds of soybean to solve the acute shortage of seeds. Though Dhanuka Group was not having the seed division, based on the request of the Department, it has taken a proactive role and purchased the good quality soybean (JS-335) from neighbouring districts and distributed 1135 MT to farmers in Hoshangabad district.

During discussion, the Department staff confirmed that, there was acute shortage of soybean seed during Kharif 2002 and expressed that being a government department they could not buy the seed from private company by paying the money in advance and hence they persuaded their partner Dhanuka Group and the acute shortage of soybean seed was solved. Dhanuka endorsed the same. It was done only as social responsibility of the company than commercial interest as informed by Dhanuka staff. It was noticed from this instance that farmers' emergency needs were met through Public-Private Partnership in the area of input supply where the public extension system may not deliver things in time due to formalities.

It was learnt that Dhanuka has decided to start few agriculture super markets in different parts of the country based on the experience gained in Hoshangabad. There is potential for partnership for establishing agricultural super market to distribute quality agricultural inputs to the farmers at reasonable cost and ensure buy-back arrangement of farm produce. Experiences of various models like TATA Kisan Kendras, Buddiman Kendras, E-Choupals, Mahindra Krishi Vihar and many more could be taken into consideration while establishing farmer super markets.

**8. Appointment of Nodal Officer:** As per the MoU, Deputy Director of Agriculture from the Department, and Development Officer from Dhanuka Groups acted as Nodal Officers in the MoU period. Both the Department and Dhanuka Group involved in the joint decision making and execution with regard to extension activities.

**9. Joint Account:** Joint account in the name of Krishi Vikas was not opened. During the discussion with both the partners, it was understood that, due to legal problems, account could not be opened. Joint account would have brought the partners financially closer in the spirit of partnership, which did not happen. It is therefore, necessary to indicate joint account as pre-requisite for signing MoU in future.

**10. Providing linkage with different markets for agricultural produce:** There was no effort on both the sides to establish linkages for marketing of agricultural produce of farmers.

**11. Facilitating farmers for Agriculture credit from financial institutions:** This was one of the activities which hardly happened jointly in the field though credit has been the most critical input in agriculture besides other inputs. Both the partners could have thought about creating a common platform to meet farmers and bankers, arranging awareness campaign about the credit facilities and schemes available at different financial institutes, undesirable consequences of bad repayment of loans etc. Successful examples like Viswas model of Andhra Pradesh where credit facility of State Bank of India Krishi Sahayog is being used by the Agri-Business Company to obtain crop loans to registered farmers could be tried.

**12. Printing and dissemination of Agriculture Literature:** As per the MoU, the Department of Agriculture and Dhanuka Group have jointly published leaflets on topics like "What is soil testing – how to take soil samples", "Control of aphids on lentil crop" and "save your Chick Pea crop from *Helicoverpa armigera*". The DOA, Hoshangabad, published these leaflets whereas the Dhanuka Group printed the materials. Besides these leaflets, Dhanuka also brought out leaflets on topics like "Protect your soybean crop from insect/pests" etc. in collaboration with Agricultural college, Sehore. The topic of the literature was decided jointly.

Both the partners informed that location specific information was covered in the leaflets thereby farmers received the latest information for the current problems. On discussion with farmers it was learnt that most of the leaflets distributed were having only text and further farmers suggested to have more

illustrations for better understanding of the messages. It was noticed that joint production and distribution of literature was restricted only to leaflets.

**13. Film on success stories:** As per the MoU, a video film was made on success story of soybean with the participation of both Government and Dhanuka Group. Shri. K. S. Raghu, DDA and Shri. N. K. Chhari, SDO, Hoshangabad from the Department of Agriculture and Dr. Puranic, Development Manager of Dhanuka Group provided the technical assistance in producing the film. Dhanuka Group provided the financial support and necessary arrangement for film production. The video film was distributed to Agriculture Extension Training Center (AETC) – Powarkheda to use it as teaching material. Department staff confirmed the production of film on soybean and stated that they were involved in the production of film. Shri. Ashok Sharma, Nodal Officer, Dhanuka explained that, the content of the film included the demonstrations, soil sampling, treatment of seed, importance of organic manure, plant protection measures etc. of soybean. However, during interaction with the farmers, it was understood that most of them have not seen the film. It was observed that screening of film was limited and very few farmers who attended training were benefited out of it. Therefore, it is important to make use of such films in all extension activities.

**14. Award for successful farmers:** No efforts were made to honor the successful farmers as indicated in the MoU. It was learnt during the study that Dhanuka Group was interested to honor the progressive farmers and dedicated extension workers (both from the Department and Dhanuka) who contributed for the success of PPP. It came to know that these awards were given away in July 2006.

**15. Development work through groups:** During discussion and through secondary data, it was understood that, DoA formed 542 Kisan Clubs, 16 Water Users Associations and 695 Self-Help Groups in Hoshangabad district. The funds and programmes were purely controlled by the Department of Agriculture. Dhanuka Group attended meetings and trainings of farmer's groups organized by the Department of Agriculture and disseminated the agricultural technologies and information about agricultural inputs, selection and optimum use of agri-inputs etc. Dhanuka is also promoting Dhanuka Kisan Mitra Groups throughout

the district independently. It is observed that there were no joint efforts in promotion of farmers groups.

**16. Participatory Monitoring and Evaluation:** Monitoring of the activities were undertaken jointly during MoU period. On discussion with both the partners, it was learnt that there were regular monthly meetings at DDA's office at district level and weekly meetings at SADOs office at Block level. Nodal officer of Dhanuka Group attended monthly meetings at DDA's office at district level and Dhanuka Extension Officers attended at SADOs office at Block level. During the meetings, progress of the previous month was reviewed and plans of action for the next month was decided jointly by the Department and Dhanuka Group. After the meeting, monthly progress reports of every month were prepared, signed by both Nodal Officer of Dhanuka and DDA and the reports were sent to Director of Agriculture.

Though monitoring of the activities was regularly undertaken during monthly meetings, the activity of Participatory Monitoring and Evaluation of the programmes was not undertaken. Instead, a third party evaluation by an NGO was undertaken after the completion of MoU period.

**17. Organic / Natural farming for maintaining ecological balance:** Discussion with employees of DOA, Dhanuka Group and verification of the progress reports indicate that demonstrations on organic farming were conducted in 35 villages. Department played a major role right from planning, funding and implementation of organic farming related programmes. Dhanuka Group played only secondary role to some extent in the form of taking farmers to exposure visits on organic farming.

Promotion of organic farming is one of the areas where the spirit of partnership was nominal. Employees of the Department stated that, organic farming programme was mostly implemented by the Department as per the scheme guidelines. Dhanuka staff also felt that, this was government scheme / programme. Under this scheme, the employees of Dhanuka Group simply participated in the training, awareness campaign etc. It was found that the programme was implemented by the Department with the passive participation of Dhanuka Group. It was noted that Dhanuka limited its role in relation to

programmes on promotion of organic farming just by providing transport facility to farmers and arranging one subject matter specialist.

The experience indicates that the private partner should not confine to the commercial interest only but it should also involve in activities of mutual interest of the partners. Also it is necessary to have clear working guidelines in the MoU to ensure the participation of private partner especially in the activities which contradict their business interest.

**18. Infrastructure Development:** This is one of the areas where the team could not notice any joint initiative. Opening of public infrastructure like training centers, soil testing laboratories, seed production farms, bio-control agents, production centers to private sector for utilization needs changes in existing legal and financial guidelines of public extension.

**19. Strategic Research and Extension Plans (SREP):** Joint decisions were taken only on extension activities in the monthly and weekly meetings at district and block levels during the MoU period. Development of Strategic Research Extension and Plans with an aim to identify the gaps in the farming systems and design strategies with regard to Agro climatic zones was not undertaken jointly.

It was noticed that perhaps the significance of partnership in the Hoshangpur Model has prompted the need for involvement of private partners for better delivery of extension services through Agricultural Technology Management Agency (ATMA) under extension reforms. Hoshangabad district has now been selected as ATMA district under extension reforms. Dhanuka Group was selected as an active partner to work with ATMA, Hoshangabad under PPP. This may perhaps provide opportunity to the Department and Dhanuka Group to involve in preparation of SREP on the basis of Agro-climatic zone in future. It is inferred from the above experience that, the impact of PPP may not be immediate on the extension system but it may appear in the later stages also.

## Discussion

1. The concept conceived by MANAGE was accepted by the Department of Agriculture and Dhanuka Group for implementation. Department of Agriculture was more open to this novel idea, which is appreciated. Top

officials were wholeheartedly involved in implementation. However, down the ladder, initially resistance was experienced and later this resistance was converted into forced participation due to the fear of top officials. At the end, public extension functionaries even at the lower rung were convinced about the benefits of Private-Public Partnership.

Dhanuka perceived PPP as an opportunity to promote company's image in the eyes of the farmers while working with public extension. It was also observed that spirit of partnership in Dhanuka professionals was not affected by the initial reluctance and later forced participation of public extension functionaries. Availability of additional manpower, logistics and transport facilities provided by Dhanuka attracted the public extension functionaries at grassroots level as it reduced their burden to some extent in organizing the programmes at village level.

2. Pre-requisite for operationalising Public-Private Partnership model is orientation of private and public extension functionaries involved in implementation on MoU. This has to be undertaken by competent agency. Absence of such orientation by MANAGE in Hoshangabad model resulted in lack of clarity on concept and MoU among public and private extension functionaries at all levels leading to confusion at implementation stage.

3. State sponsored private extension policy is pre-requisite for success of Public-Private Partnership. Realising this, MANAGE drafted private extension policy framework for Madhya Pradesh. However, there is no evidence of using this document by the Department. It is observed that, in the absence of such policy framework, the Department is finding difficult to finalise MoU with many other Agri-Business companies. It is also observed that Department of Agriculture could able to draw valuable lessons while implementing PPP model at Hoshangabad. Based on the lessons, the Department has refined the MoU consisting of a few workable activities to be taken up under PPP. It was learnt that both the Department and Dhanuka signed the modified MoU in the month of July 2006 to undertake extension activities under PPP.

4. Soil Testing advisory is found to be most successfully implemented activity under pilot project. Role clarity among the partners and tangible results were responsible for success of soil advisory under PPP.

5. Public-Private Partnership provides scope for Agri-Business Companies to reach more farmers. There are also opportunities for Agri-Business companies to use PPP platform to promote their products. In order to prevent exploitation of farmers by agri-business companies for commercial purposes under PPP, agri-business companies may be given activities out of their commercial interest. Handing over of soil testing laboratory to a Pesticide Company i.e. Dhanuka as in Hoshangabad model is an example.
6. One of the intentions of Public-Private Partnership was to open public infrastructure for the use of private partner to reach more farmers. This is evident in case of success of soil advisory in Hoshangabad Model. This type of initiative may be extended to infrastructure namely training centers, seed production farms, demonstration farms, Bio-control agents' production centers, etc.
7. Frequent transfers or retirement of private and public officers, who were involved in the beginning of implementation of Hoshangabad Model created vacuum and slowed down the implementation of PPP. New comers were not oriented on the MoU and their role in operationalisation of PPP. Hence, orientation of the stakeholders should be an inbuilt continuous activity which contributes to the success of the project.
8. There is need for a separate private extension cell at the Directorate to co-ordinate Public-Private Partnership activities as suggested by MANAGE. The cell should be headed by experienced extension professional having inclination and expertise for public-private partnership. He has to negotiate with agri-business companies proactively and work out partnership models for finalising MoUs. It was observed that such cell was not established at the Directorate of Agriculture, Bhopal and the PPP in Hoshangabad was handled just like any other scheme.
9. Sustainability of PPP depends on sharing of resources, responsibilities and benefits in a win – win situation. This was successfully demonstrated in case of soil testing activity. That is the reason for continuation of soil testing activity under partnership even after the expiry of MoU. However, the same process was not followed in case of other 17 activities signed under MoU.
10. Facilitation in implementation of novel concept like Public-Private

Partnership by third party / expert agency is must. Initially this facilitation was provided by MANAGE to launch the programme. But programme was implemented in the absence of facilitation by expert agency. As a result, non-implementation of more than half of the activities signed under MoU was not pointed out at any stage. This lacunae would have overcome by the presence of third party / expert agency as facilitator.

11. There has been enough scope for Public Extension to generate additional revenue by opening its infrastructure like training centres, seed production farms, demonstration farms etc. for private participation as suggested in MoU guideline of MANAGE. However, this area was left out in the signed MoU.

12. Certification and categorization of private partner based on the performance is necessary to review the MoU. Even on expiry of MoU, such a review was not done scientifically.

13. MoU was expired during November 2003. However, Dhanuka Group was permitted to continue the soil testing activity as department was happy with the performance of partner. Prior to November 2001 i.e. launching of Public-Private Partnership model, extension activities were carried out by the Department and Dhanuka Group separately. Department carried out regular extension activities, Dhanuka also implemented marketing activities, but without partnership. During the MoU period, both the partners synergised their resources and implemented extension activities jointly.

Post MoU period, Department went back to the regular extension activities. However, Dhanuka Group continued with the same spirit which gained from the Public-Private Partnership. Public-Private Partnership infused confidence among private partner to continue with private extension with strengthened liaison with public extension. Even after 2½ years of expiry of MoU, Dhanuka launched "Mobile Seed Treatment Van" during June, 2006 under Public-Private Partnership programme.

14. MoU proposed joint account in the name of Krishi Vikas, which builds confidence in private partner and force joint decision-making in extension. But joint account was not opened during the MoU period. It is learnt that the

issue is pending with the Department as some existing legal and financial guidelines needs modification to suit Public-Private Partnership.

15. Participatory monitoring and evaluation was not undertaken as agreed in the MoU.

### Impact of Hoshangabad Model

**1. Awareness:** Hoshangabad model created awareness about the importance of Private-Public Partnership in Agricultural Extension Management at all levels in public and private sectors. Agriculture Department received expression of interest for Private-Public Partnership in Agricultural Extension Management from many reputed Agri-Business companies. The details are as follows:

S.No.	Agri-Business Companies	Selected District
1	KRIBHCO(Krishak Bharti Cooperative Ltd.)	Ratlam
2	IFFCO(Indian Farmers Fertilisers Cooperative Ltd.)	Ujjain
3	IPL(Indian Potash Ltd.)	Chhindwara (Only 6 Blocks)
4	CFCL(Chambal Fertiliser & Cooperative Ltd.)	Sheopurkalan Neemuch
5	BEC(Bhilai Engineering Corporation Ltd.)	Narsinghpur
6	Biotech International Ltd., New Delhi	Indore
7	Beo-tech Inputs and Research (P) Ltd., Indore	Mandsaur
8	Pest Control of India, Mumbai	Raisen
9	GNFC (Gujrat Narmada Valley Fertilisers Co. Ltd.)	JhabuaDhar
10	GFC (Godavari Fertilisers & Chemicals Ltd.)	Dewas
11	SOPA(Soyabean Processors Association) Indore	Morena, Datia, ShivpuriTikamgarh
12	HFL(Hindustan Fertiliser Corporation Ltd., Bhopal	Gwalior
13	KCFL(Khaitan Chemicals & Fertilisers Ltd.) Indore	Barwani
14	Shri Ram Chemical & Fertiliser, Indore	Khargone

The model was discussed in various Agri-business forums. Almost all the Agri-Business companies are aware of the model. As a result of significant contribution in Hosahangabad experiment, representative of Dhanuka was selected as member of Governing Board of ATMA, Hoshangabad. Department of Agriculture, Madhya Pradesh renewed MoU with Dhanuka Group and signed agreement during July 2006.

Dhanuka Group received invitation from Andhra Pradesh, Maharashtra and Rajasthan to try this concept in their state. National Institute of Agricultural Extension Management (MANAGE) discussed this model in their training programmes attended by Public and Private extension functionaries from all sectors and different states of the country. The Hoshangabad Model won the "Best Productivity Performance in Agriculture Extension Services" Award by National Productivity Council for the year 2004.

**2. Policy change:** Hoshangabad Model gave most valuable lessons, which could be used in development of PPP models in future. Dhanuka Group and Agriculture Department, MP were invited to many national and state level policy forums to share their experiences gained during implementation of Hoshangabad Model. Centrally sponsored scheme of Extension Reform considered minimum 10 percent of funds to be routed through PPP, which is being implemented in 252 districts. This model provides operational tips for routing 10 percent of funds through private partners under Extension Reforms. Hoshangabad Model raised certain issues with respect to present legal and financial guidelines which need to be changed for smooth implementation of PPP. To name few are joint account at district level, handing over of infrastructure to private partners etc.

The State Agriculture Department is considering MoU with many of the Agri-Business Companies in other districts. This is the major shift in Public Extension Policy. Hoshangabad Model influenced the policy of Agri-business companies also. They are slowly shifting from strictly marketing activities to other extension activities which does not bear any influence on their marketing activities directly. Dhanuka received invitation from Rajasthan, Maharashtra and Andhra Pradesh to try similar model in their states only indicate the states willingness to embrace partnership model.

**3. Attitude Change:** Public extension personnel attitude towards Private Extension Service Provider (PESP) is changing slowly. Earlier perception of a “greedy aggressive marketer” to “resourceful person useful to public extension in reaching farmer” is evident. PESP is not perceived as threat to public extension through competition and substitution. Instead its complimentary role in gap filling mode is appreciated. Even though partnership mode provides equal opportunities to private and public partners, the private partner found to be satisfied with the role of “obedient unequal partner”. This is probably due to the regulatory powers held by public extension.

Appreciation and recognition have been received by private sector through result oriented extension work carried out under PPP banner. Agri-Business Company has been transparent on PPP platform, in the presence of public extension which is their regulator. Agri-Business Company is more credible in the eyes of farmer in the PPP platform than alone.

**4. Change in system:** PPP mode brought change in extension system at district level and below. Joint planning, implementation, monitoring and evaluation brought private partner into mainstream extension. Handing over of Soil Testing Laboratory (public infrastructure) to private partner is only the beginning of change of system. Public and private partners worked together in implementation of many activities such as training, demonstrations and exposure visits etc.

**5. Manpower:** Prior to 2001, there were 288 extension workers in the district. Manpower in public extension decreased from 288 to 259 during 2001-05. The manpower increased with addition of Dhanuka doctors/scientist/ Nodal officer during project period by 11 numbers. Even after expiry of MoU, 12 extension workers of Dhanuka continued to work. The contribution of manpower by private sector is nominal. Soil Testing Laboratory was earlier managed by 19 Departmental officers, now, replaced and managed by 4 Dhanuka professionals. The replaced departmental officers were posted in vacancy positions in the field.

**6. Cost effectiveness:** Public extension could able to save salary and other expenditure of manpower added by Dhanuka under Hoshangabad model.

Dhanuka sources say that the company spent more than Rs.75 lakhs since 2001 on the project. Similarly Dhanuka also increased its turnover from Rs. 3 Crore to Rs. 4 Crore during the project period.

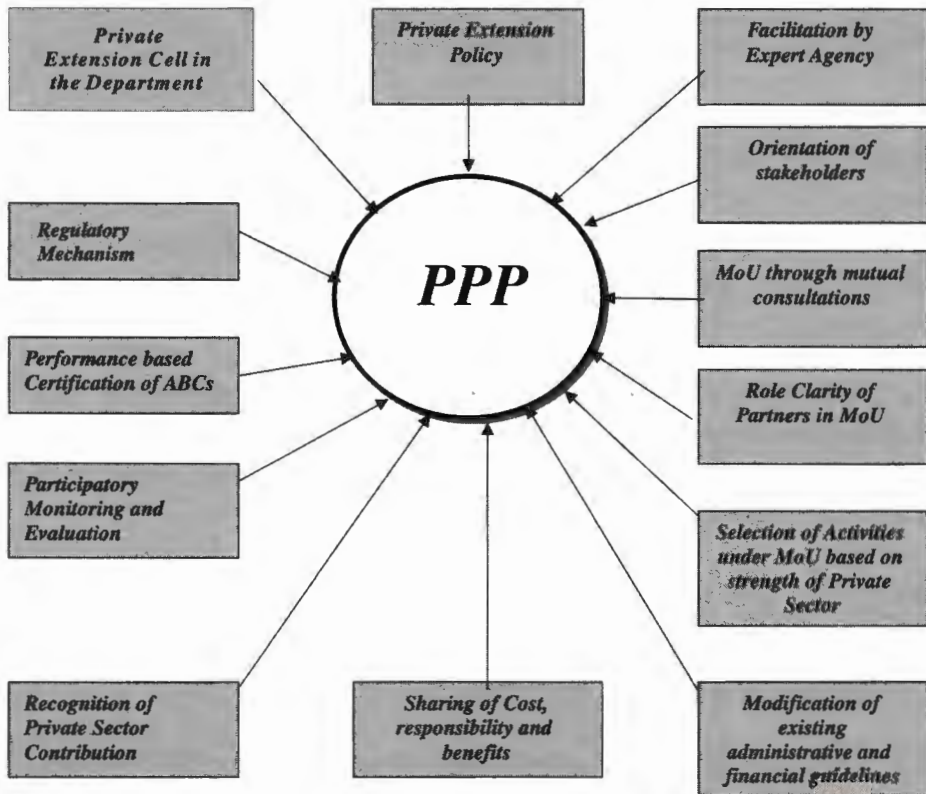
**7. Time effectiveness:** Additional manpower, investment in infrastructure (vehicle, phone) contributed by Dhanuka added to time effectiveness in extension i.e. reaching more farmers in less time. Reduction in the time taken for soil advisory, supply of soybean seeds in emergency situation, *Helicoverpa armigera* control through combined efforts etc are the examples for time effective initiatives in extension under PPP.

**8. Accountability in extension:** Accountability of extension activities under PPP has been increased. Charging system in soil testing made the system accountable to the farmers. Private sector was cautious in safeguarding its image in the eyes of farmers and public extension.

### **Best practices for upscaling PPP based on the experiences of Hoshangabad Model**

1. Private Extension Policy
2. Orientation of public and private stakeholders at different levels on PPP in Agricultural Extension Management.
3. One-to-one in-depth consultation between public and private partners on MoU
4. Engaging Agri-business Company or consortium of Agri-business companies to work with farmers to provide total solutions i.e., production, processing and marketing
5. Facilitation by Expert Agency in MoU preparation, operationalisation, Monitoring and Evaluation.
6. Clear role clarity for partners in MoU
7. Modification of existing administrative and financial guidelines to suit PPP in Agricultural Extension Management.

## Critical Elements for the Success of PPP in Agricultural Extension Management



8. Joint Account
9. Private Extension Cell to coordinate PPP activities at State level.
10. Selection of activities under MoU based on strengths of private sector.
11. Opening public infrastructure such as soil testing laboratory, seed production farm, Bio-agents' production units etc., for the use of private sector under PPP mode.
12. Sharing of cost, responsibility and benefits proportionately are important for success of PPP.
13. Regulatory Mechanism should be in place to keep away pure commercial interest of Agri-business Companies.

14. Acknowledging the contribution of private partner on all the platforms.
15. Ensure Participatory monitoring and evaluation.
16. Certification of Agri-Business Companies (ABCs) based on performance, to serve as basis for renewal of MoU.

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