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Dear Moderators

I enjoyed the e-conference but could not participate properly due to my busy schedule for out station work. However, I am sending my small contribution.

1. **The contribution of research to the development of family poultry production systems:**

Traditional backyard poultry keeping has been in practice since time immemorial. Sizeable amount of researches have been done in the field of backyard poultry production which has contributed significantly to the development of this system due to which three types of poultry rearing viz. (i) Traditional scavenging backyard or village system, (ii) Semi-scavenging system and (iii) Small-scale intensive system were evolved and in single term these three systems are called as Family poultry. Since the requirements of each of these systems are different from each other and improvement in the particular system opens the way of new challenges, further continuous research is required for the sustainability of each system.

1. **The development for livelihoods through family poultry – cost and opportunities**

Family poultry is playing significant role for livelihoods. There is large number of success stories where the farmer started the poultry keeping as Traditional scavenging backyard or village system with 25 birds. Gradually the unit was converted into the semi-scavenging system of 50 birds and ultimately the farm was converted into Small broiler farm having capacity of 250 birds with 8weeks cycle. Some of the farms have been further upgraded and they earn sufficient money for livelihoods. Certainly the Small-scale intensive system farm will be the minimum requirement for securing the livelihoods.

1. **Competing or complementing commercial poultry production system?**

In India, poultry production has increased rapidly and tremendously in the last three decades, but this expansion, largely due to the commercial poultry sub-sector, does not reach the less-favored rural areas and disadvantaged families, which account for 70% of Indian population. Targeting small-scale, family-based poultry systems as an effective entry point for poverty alleviation programme is gaining widespread acceptance. The large-scale commercial and small-scale rural family poultry sectors need not be mutually exclusive, nor be in direct competition. The challenge to reduce rural poverty and malnutrition cannot be achieved by one single intervention and in isolation, as no single activity will have a major impact. Indeed, the commercial sector with its wealth of human, technical and financial resources might play a major catalytic role in promoting family poultry production as a practical and viable option for poverty alleviation.

1. **Single verses multiple(integrated) interventions for sustainable development of family poultry**

Multiple (integrated) interventions are better than single for sustainable development of family poultry. In recent years, the number of birds reared under traditional scavenging system has reduced drastically due to various reasons among which decrease in availability of natural resources of feed is the most important. In reality, the homestead size is reducing in many countries day by day due to division of homestead land. Natural feed resources are being reduced day by day for scavenging birds due to reduction in kitchen gardens, pucca village allays, multi-cropping in the nearby fields and use of insecticides and pesticides due to which feed supplementation of the birds have become essential . Uses of improved germplasm further need the improvement in feed quality. Urgent need was felt for the alternative source to feeding the scavenging birds without the use of conventional feed ingredients..

An attempt was made to improve the availability of the natural feed resources under the project titled “Holistic Approach for improving Livelihood Security through Livestock based Farming System. The project has different components of livestock and agriculture farming along with traditional backyard poultry production. To reduce the cost of feeding, the small flocks of scavenging chicken reared by the small poultry producers were integrated with the horticulture (fruits and vegetables). Farmers of horticulture crops were motivated for mixed farming including horticulture crops (fruits and vegetables, vermin-composting and small farm chicken production. Earthworm obtained as the by-product of the vermi-compost was also used for feeding the birds. Further, farmers were made acquainted with the importance of Azolla as natural source of poultry feed. They were trend for cultivation of Azolla on small scale on farmer’s door and in village ponds on large scale. Both green and dried azolla were used for feeding of the birds in addition to their scavenging and /or conventional feed.

Holistic approach for integrated farming resulted in very economical farming and helped much in livelihood security. Previously chemical fertilizers were used in the horticulture farming which was replaced with vermin-compost manures which saved lot of money. Use of vermin-compost manures increased the humus of land as a result crop yield increased significantly. Birds were left in the guava, banana and other vegetable crops yard where they found plenty of land for scavenging. Availability of plenty of insects, worms and soft green forages were sufficient for their feed requirement and there was no need of additional feed supplementation. It was amazing to note that the scavenging chicken were found to control the problem of insects and pests up to nearly 60- 80 % especially in guava and banana orchard and also in some vegetable crops. Thus symbiotic relationships were observed for horticulture cropping and scavenging birds. Disease and pest control for horticulture crops saved the money to be spent on medicines and cost of supplementary feeding was also saved. Earthworm converted poultry excreta and other waste materials as good quality manure and extra earthworms were fed to the birds which are source of very good quality protein for poultry feed. Use of Azolla as the supplementary feeding was found to be quite effective in reducing the amount of grains for feeding.

1. **Good organizational models for sustainable family poultry development**

Various organizational models for sustainable family poultry development have been evolved and tested with grand success in the testing area till the project is continued. This is neither the indicator of the success of the model nor the failure. The sustainability of the model depends on various factors among which availability of sufficient permanent infrastructure facilities and technical manpower with zeal to work for poor society is the main requirement. What strategies can be adopted for multiplication and distribution networks has already been discussed during the first e-conference. The model fulfilling the requirements suggested by various participants of the conference will be the best organizationalmodel.

1. **Women empowerment through sustainable family poultry development**

Women empowerment through sustainable family poultry development is one of the oldest topic of discussion which has been proved to be the established fact and needs no further debate.

1. **Influencing policy for family poultry**
2. **The future contribution of INFPD and other networks to family poultry development**

Family poultry development is still in primitive stage. Most of the developing countries are lacking the infrastructure facilities for real implementation of the family poultry production programme. There is no doubt that family poultry production has been paid attention by the government since last decade in most of the developing countries after the all possible efforts made by the INFPD and other networks to family poultry development. But development of family poultry scheme has not yet received its appropriate government share. It would the future duty of the INFPD and other networks to boost the further growth of Family poultry research and development by disseminating the updated global technical knowhow.

Thanking you

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