

Visit Notes on tour to Sikkim

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Place & Dates: Sikkim state, 14-17th April, 2015.

Visits to various locations in South, West and East Sikkim were planned in the context of the Organic Farming programme under consideration in this Ministry. The visits and discussions with officials, farmer groups, and facility managers associated with Sikkim's organic mission were planned from 15th April to 16th April, 2015. The places visited and discussions held were, in chronological order,

15th April, 2015:

- ✦ Roadside overview of Raguthang village nestling in the folds of a hill, comprising a microwatershed (considered to be a cluster in our OF programme) of roughly 60-80 ha and with several greenhouses used for vegetable cultivation;
- ✦ Interaction with Farmer Panchayat Units (FIGs or Farmer Interest Groups) at Pakjor village in South Sikkim with presence of Support Organisation (Morarka Foundation);
- ✦ Visit to Ginger processing plant of SIMFED, Birdhang, West Sikkim;
- ✦ Interaction with Gram Panchayat Unit Farmers (FIGs) and FPO at SIMFED office, Birdhang, West Sikkim;
- ✦ Visit to Model Livestock farm at Karfectar, South Sikkim;
- ✦ Visit to Wholesale and Integrated Pack House and Floriculture auction centre (partly under construction) at Melli, South Sikkim.

16th April, 2015:

- ✦ En route inspection of retail sale centre for fruits/vegetables, Pabong;
- ✦ Visit to Temi tea factory cum office at Temi, South Sikkim;
- ✦ Visit to Cymbidium Development Centre using Tissue culture, Rumtek, East Sikkim;
- ✦ Interaction with FIG farmers and FPO at Rumtek Orchid Centre, East Sikkim.
- ✦ Discussions with Chief Secretary, Addl CS, State Govt officials, NABARD, ICAR Research Complex for NEH, Tadong (Dr Avasthe), Spices Board, and NERAMAC.

My summary observations for the individual visits in the context of my overall visit impressions are as under:

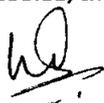
- 1) A large number of greenhouses have been built in Sikkim and it is learnt that these are of the costlier GI pipe supports and also of bamboo supports. Funds under NHB 50% subsidy have been availed with labour of levelling and preparation of land as the remaining contribution for the GI pipe supported Greenhouses while bamboo costs are borne in the cheaper greenhouses. Clearly, these are fundamental to the strategy of the Sikkim Government although not identified by them on those lines. These greenhouses allow exploitation of non-seasonal demand for some products. Each greenhouse is permitted a subsidy of 50% under the Horticulture Mission for NE Hill States on a maximum 400 sq m with a construction cost of Rs 2419 per sq m.
- 2) The road overview (near aerial) showed the village organised within the area between the folds of the mountain and this corresponds exactly with the microwatershed contemplated to be identified with a Cluster under our proposed OF programme.
- 3) During discussions, farmers understood and supported the need for multicropping strategies and not on monocrop clusters as relevant to their mountain ecosystems.



- 4) On inquiry with officials, it is learnt that average holding ranges from half to two hectares and there are several cases from the prior period before democratic rule, of persons holding large estates. Tenancy, especially sharecropping is prevalent and in such cases, it is normal economics that the sharecropper faces uncertainty in continuation of lease and therefore, no investment takes place on the land by either the landlord or the sharecropper.
- 5) The Livestock farm is proposed as a a model farm but during the visit, it was noticed that the cows are kept in dirty condition, especially the udder area which would no doubt raise MBR counts and reduce milk curdling times. A complete revamping including of staff may be needed for using this centre but that is for the State to decide based on its priorities.
- 6) Produce offered varies from place to place depending on land and weather. A wide variety of vegetables and fruits are offered for market and include beans, oranges, tomato, cabbage, cauliflower, large cardamom (West Sikkim), ginger, and turmeric. Some of these crops avail of the off-season advantage especially cabbage, cauliflower and tomato.
- 7) Greenhouses have become ubiquitous and represent the farmers' appreciation of the need to compete in markets and the exploit the non-season opportunity. The FPO has played an important role in sensitising farmers to markets and acts in addition to farmers' visits to markets and seek to understand the market's opportunities.
- 8) The farmers' produce is currently being absorbed in local markets to which they give priority. At the same time, the farmers, having small holdings, also give importance to subsistence needs and only offer some portion of their mixed crop to markets. A plan for linking them to markets has to understand this vital factor and any large alteration can only be a gradual process of change coupled to growth in confidence that they will be able to support themselves and their families for their basic needs.
- 9) Although Siliguri market operators make no distinction between organic and non-organic produce, farmers still depend on this market primarily because it is much larger than the local towns of Jorethang, Namchi, Pelling or even Gangtok. Siliguri also has a regulated market and on this aspect, the State Government plans to develop a regulated market cum auction centre in Melli at the border of South Sikkim with West Bengal. Another reason is that during the off-season in June, July, and August, farmers do not send their cabbage, cauliflower, tomato directly to Gangtok but only through the regulated market in Siliguri. Farmers have also adjusted their harvesting protocols to suit this market by harvesting green tomato or half-ripened. It was reported that nearly 1400 farmers in a tomato cluster of villages are marketing 15000 tonnes in that market. In the case of cash crops like ginger, fresh (green) ginger is sold at the farm gate by farmers in Birdhang, West Sikkim, to traders who take it to Siliguri and other places.
- 10) As regards the lack of separate handling in Siliguri traders of organic produce, large cardamom and buckwheat are nearly completely supplied from Sikkim and as a unique crop, there is no apparent need to distinguish the niche product.
- 11) On the production aspect, seeds are supplied by the Government from major seed suppliers and no serious complaints on timely supply were made. The Government is learnt to be making efforts to produce organic seeds including on farmer fields to support the certification needs.



- 12) The farmers use green manure (daincha) for their fields to restore fertility. Many farmers have, in the face of a compulsion to avoid chemical fertilisers, provided covered spaces for composting to produce FYM. The State Government wants to provide aid to the farmers for this purpose since two deep pits per farmer are required to support application and productivity.
- 13) For producing FYM, farmers maintain white cattle and also pigs and chicken. Since bull population is also substantial, farmers are using them to plough their fields especially since bulls are compatible with terrace farming. Only the women farmers of Gangtok area appreciated the use of Power Tillers since it was easy to operate for the women.
- 14) Strangely, the use of vermicompost was not underlined as an alternative during the discussions. State Government officers said
- 15) With regard to the strategy proposed of Cluster, Council and Federation, the farmers in West Sikkim appreciated its applicability and compared it, rightly, with the Milk Union of Sikkim. They particularly appreciated the microwatershed approach in the Cluster and requested arrangements for providing soil and water conservation techniques and structures. It was explained to them that the scheme was intended to converge various schemes of the State and Central Government and the organisations would be able to facilitate the process.
- 16) The farmers mentioned the need for crop insurance and also minimum support price in view of the risks faced in horticulture from weather, pests and also from the variation in market prices based on supply and demand and the lag in effects.
- 17) The farmers were questioned on how and when they wished to be paid for the produce deposited with their village Councils in the new scheme as compared to the mechanism now in operation. They did not want any immediate payment. In the case of East Sikkim, the farmers are paid monthly. These farmers reported that they had paid Rs 1000 as initial deposit with the FPO for membership. In any case, the liquidity problem affects both farmers and the Federation/FPO. A case was pointed out of an orange farmer who had contracted for the entire farm produce of oranges, where the traders (Kuthiya) paid Rs 1 lakh as advance, another Rs 1 lakh at harvest time when the value of produce at the time of harvest was Rs 3 lakhs. This is effectively 33% per month. In the case of the FIGs of East Sikkim, they have accumulated substantial savings and can wait for payment.
- 18) The alternative source could have been a rotating savings & credit group (SHG) but the amount involved may well be small in comparison with the needs of horticulture. Further, SHGs are not intended to offer large loans which would need to be met by banks. I also posed to them the possibility of regular and more frequent payments using a cash credit working capital funding facility from banks or NEDFI but did not get much of a response. Perhaps it was not clearly understood by participants.
- 19) In respect of links to markets, the Milk Union is also said to be facing problems of going up to the villages. Therefore, the societies in the village were taking the milk in bulk to the main road. The farmers desired early provision of road links.
- 20) The farmers emphasised the need for processing so that prices could be kept high and bearable. In the case of large cardamom, the farmers were told that drying should be done in such a way that it retains its maroon colour and technologies were available.
- 21) Farmers also requested supply of a cold chain but they appeared to be unclear on its relevance to some crops since, as it was explained to them, once a product was cooled, the product should maintain ambient temperature until the sale point.



- 22) Spices Board suggested development of a Spices Park for large cardamom and Rs 40-50 crores were available for building and infrastructure. Packaging was an important area for focus.
- 23) The farmers who assembled in Rumtek were pleased with their operations that were based on the Gangtok market but poor access to Siliguri and the prices were discouraging growth in production. Only the FPO in Gangtok was successful. The other FPOs were dependent on nearby large towns such as Namchi, Jorethang and only after supply to those markets, did they venture to Gangtok.
- 24) During the discussions at the Secretariat, an issue was raised on the scale of economies in the model proposed for organic farming. It was explained that, far from the current practice, since ginger seriously depleted the soil, it was proposed that not more than 5-15 ares were to be cultivated with ginger for each one hectare holding. This would generate for a village with 60 ha, a GPU with six villages and a district Federation with 50-60 GPUs and with productivity of 7 tonnes per ha, not less than 7000 tonnes of raw (green) ginger for the Federation and this was certainly a handsome figure suited to market bargaining.
- 25) Dr Avasthe suggested a single brand for these products. He was advised that this was actually contemplated but branding, single or multiple, were part of business strategy.
- 26) During discussions with farmers, the issue of MSP came up and it was explained that the scheme now proposed was intended to draw the farmers away from this demand since the markets were to be advantageously linked.
- 27) On the issue of women leading the organic movement, the men who were in the lead presently under the State's programme including for the FPO and the one organised in East Sikkim (Gangtok), the participants saw no difficulty. The women in Gangtok area were also more involved in discussions compared to the other regions but the woman's position in Sikkim is learnt to be more favourable for leadership outcomes.
- 28) The issue of Animal husbandry configurations to support and to be an integral part of organic farming was not explored in detail but it is clearly important and also required much labour, personal and hired. These add costs and also, benefits.
- 29) The input arrangements made by the State Government for organic farming was not discussed in detail since these are to be part of the proposals made by them. However, it is apparent that FYM cannot be centrally produced and this is the main product. Vermicompost also stands in the same position except for replenishment or initial supply of earthworms. Biofertilisers and biopesticides are suited to central production although some of the best pesticides are better produced locally using herbs in the locality.
- 30) Vermicompost units were located away from the places of visit given the focus on discussions. However, cluster level (community) vermicompost units and individual units have been provided.
- 31) The Cymbidium Tissue Culture, Multiplication and Dissemination Centre is an excellent centre for the purpose. No centre for development and supply of vegetable and fruit varieties exists in the State and this is a potential area for introduction, perhaps with support of the NEC.
- 32) On the issue of organic floriculture, it was pointed out to the officials that floriculture was for decorative purposes and not edible. For this reason and in view of phytosanitary requirements, pesticide use was invariable prior to despatch, it could not be organic. In any case, floriculture for orchids and gerbera, etc was from

