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CONCLUSIONS, SUGGESTIONS AND RECOMMENDATIONS
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With the growth of population, demand for land and food has been increasing. Though agricultural production has increased, the per capita production has come down. It is understood that the scope for increasing the agricultural production to match rising population, with the existing technology is difficult. Believing that net cropped area at 46% of the reporting area is the saturation level, the scope of addition of reporting area into the net cropped area is almost closed, and therefore, the future increase in food production must come from increase in yield and cropping intensity. Need of the hour is greater investment and accountability on research and extension, expansion and development of rural infrastructure including organised markets, improved farmer education, effective involvement of the corporate sector in knowledge dissemination along with investment in agriculture to achieve greater production and efficiency.

Marketing as an economic activity has come to play a very prominent role in modern society. The production and effective distribution of goods has become an objective of prime importance all over the world. Marketing undoubtedly has a significant presence even in the developing economies. Over the years marketing has been a much neglected area in the management of economic systems in the developing economies. The creation and maintenance of an efficient and effective marketing system for agriculture products was viewed essential, not only for the well being of the farmers but also for the achievement of social objectives. The improvement of the marketing system for agricultural products in India is a monumental task requiring the investment of large resources.
Government undertook the major task of regulating, controlling and developing the agricultural marketing system through a series of activities like providing for legislation, procurement schemes, price support schemes, creation of regulated markets etc., Given the above context, we must choose the ‘micro-marketing’ framework for appraising the performance of the agricultural market system.

A number of studies have been undertaken to identify the defects, shortcomings and weaknesses of the agricultural marketing system in India. Economic planners recognised the need for major reforms and initiatives in the area of agricultural marketing, a much neglected activity in India. Economic planners are more comfortable dealing with problems relating to the production, investment and finance which are amenable to quantification and precise ‘model building’. Economic planners tend to shy away from marketing problems which are characterised by a higher degree of uncertainty and intangibility, especially where information is scanty and unreliable. The present study is an attempt to assess the performance and functioning of the selected regulated market and the researcher has relied on primary data collected from 150 farmers and 75 traders in addition to the interviews with officers and functionaries of the government connected with the administration and supervision of the concerned regulated market activities. Secondary data has been judiciously utilised to supplement and complement primary data to help the researcher arrive at relevant conclusions and make suitable suggestions.

CONCLUSIONS

The following are the conclusions of the study of farmers-traders participating in the trade at the regulated market.
1. A majority (94%) of the turmeric farmers are aged above 30 years. Significant percentages (57.33%) of farmers are aged above 40 years and below 50 years category. However the turmeric traders are also significant in the age group of 40-50 years category. So, it can be stated that majority of the persons involved in turmeric trading are matured and experienced.

2. Almost all (78.67%) of the turmeric cultivators are illiterates or their access to education is limited. This acts as a hindrance in the learning of skills necessary for more effective farming and marketing. Higher levels of education of minimal number of large farmer’s provide them skills needed for carrying on turmeric cultivation on professional lines and marketing of produce and undertaking of post activities related to turmeric cultivation. However, it is clear from the analysis of educational status of the turmeric traders that majority of them possess secondary education and higher education which provides them the skills necessary to arrive at a best deal and undertake the marketing activity on professional lines. This enables us to understand that turmeric traders are in a more influencing position over the turmeric cultivators and perhaps are enjoying dominant position.

3. Most (50.66%) of the turmeric cultivators belong to the forward communities. A few members belonging to the backward castes (15.34%) and scheduled castes (34%) have also taken up turmeric cultivation. These castes are the land owning classes in India.

   It is highly interesting to note that majority of turmeric traders also belong to forward castes and only minimal numbers of traders are of backward and scheduled castes.
This enables us to understand that turmeric trade in the area is wholly dominated by forward community as both majorities of the cultivators as well as traders belong to the forward community.

4. Above 90 percent of the turmeric cultivators undertake farming as their main occupation and only nominal number of cultivators undertook other activities as main occupation along with turmeric cultivation this shows their dependence on turmeric cultivation and can cause to claim that turmeric cultivation is their livelihood activity.

Interestingly, results of the analysis of turmeric traders occupational activity show that 20 percent of the turmeric traders are they themselves turmeric cultivators and 32 percent of them are exclusively in turmeric trade which shows that turmeric traders also in majority depend on turmeric which causes to claim that turmeric trading is their livelihood activity.

Thus an analysis of the above situation regarding the occupational activity of the members involved in turmeric trading that is both the cultivators as well as the traders are dependent strictly on turmeric crop.

5. A majority (76%) of the turmeric farmers have family size of more than four members. This may be attributed either to the prevalence of joint family system or non-adoption of the small family norm. The large family size leads to higher consumption expenditure, which reduces the saving capacity of the farmers. This may also hinder the cultivators to adopt technological/modern methods of cultivation, which leads to improved turmeric productivity as their discretionary income is rather low.
6. Turmeric trading, to many traders is a vocation chosen on the basis of the long association of their families with the activity for generations. Hence, majority of the traders report a long period of association with the vocation. The entry of new farmers into turmeric cultivation and turmeric traders into turmeric trading is a very rare phenomenon. Uncertainties of produce and price deter new members gaining entry into turmeric sector. Another factor to be noted is that most of the turmeric cultivators are not equipped to venture into another alternative vocation because of their low levels of education and skills. It was very interesting to note that nearly 34 percent of the sample of traders selected have long association with turmeric trading and are very established in the business and are more attracted of the higher profit margins.

Thus an analysis of the above situation enables us to understand that the existence of the majority of the members in this sector is a challenge which they face it with interest and confidence. Their strength of existence in the sector for a greater period of time provides them with uninterrupted flow of income which permitted them to strengthen their asset-base and financial strength. These factors contribute to their stronger bargaining capacity in the market.

7. Nearly 84% of the sample of farmers spends only Rs.700 to Rs.1000 per month for their food consumption which shows that their expenditure on food is only formal spending for the sake of living but not a luxury spending.

However, further analysis of the results stated that this minimal spending on food consumption was because majority (62.66%) of them depend on public distribution system and on their produce of the farm. This shows that the farmers
were careful in spending. Taking into consideration the existing price levels and the size of family, it is transparent that they would find it almost impossible to afford a comfortable standard of living. This acts as a severe constraint on their ability to raise funds from savings.

8. More than a half (58.66%) of the turmeric cultivators used both own as well as leased land for the purpose of cultivation of turmeric. Further analysis of them enabled to understand that their usage of leased land was due to inadequacy of resources either in terms of land or in terms of money for cultivation of turmeric and as they possessed the needed skill and assets needed for cultivation they desired to optimally utilise those aspects and hence widened their area of cultivation by using the leased land.

9. With respect to possession of farm assets owned by the turmeric cultivators covered under the study results showed that they adopted comfortable, conventional mode of cultivation as majority of them possessed the needed assets such as Kachaa house (72%), dug well / tube well (88%) and electric motor (78.67%). However for the sake of ploughing, only nominal number (7.33%) of members possessed own tractor or bullock cart (13.33%) for the purpose which shows their dependence on outsiders for the sake of ploughing.

Analysis clarifies that they are more interested in possessing those assets which are essential for them in the regular course of their cultivation and are least concerned in possessing those assets which are used occasionally. This causes to claim that they possessed 'sufficient asset-base' which enables them to earn income at reasonable cost.

10. Results of the analysis with respect to land, clarified that the turmeric cultivators are not much bothered about the land used for cultivation, because they are not
discretionary in choosing the land and used both the marginal land (48%), fertile land (52%) more or less equally.

However more than 61 percent of the cultivators are very much conscient in undertaking measures to improve the soil fertility and further analysis showed that this might be attributed to the fact that the fertility of soil of their land was decreasing/stable for majority of them suffered with problem of soil erosion and majority of them complained with the problem of weeds.

Thus we can say that wide many reasons forced/necessitated all the farmers in adopting measures for soil conservation i.e., hundred percent of the cultivators adopted measures for improving soil fertility and thereby soil conservation which largely consisted of summer ploughing and others. All of the efforts of the cultivators with respect to the aspect were supported by the availability of ground water which was below 25-30ft for majority (52.67%) of the farmers.

11. A proper exploitation of short duration inter-cropping opportunities could substantially add to the income of the farmers. Proper exploration of inter-cropping possibilities could lead to a more productive use of the vacant land. Turmeric cultivators can be lauded for the fact that majority of them (80.67%) adopted intercropping to augment their earnings which could trigger the flow of regular earnings. However results of the analysis forced to conclude that new and more efficient systems of irrigation like the sprinkler system, pitcher system, etc., are virtually absent in these areas and they are more dependent on labour for the purpose of cultivation because majority of the cultivators (92.67%) used labour over and above 5 members per acre.
12. The cost of cultivation of majority of turmeric farmers per acre ranges from Rs.35,000-Rs.45,000 which enabled about 60 percent of the farmers to produce reasonably ranging from 0-10 Quintals per acre and only nominal number of large farmers incurred cost above Rs.45,000 as they used improved facilities, higher power consumption for the improved equipment to increase their productivity which enabled them to produce ranging from 20-40 quintals per acre. Such forecasts are made taking into consideration a good year where production is not adversely affected by cyclones, hail storms, excess of dew, pests etc. Thus it is evident that a fair return is provided to the farmers subject to the condition that there is a healthy irrigation system.

However 46 percent of them retained 5-10 per cent of their produce

13. It seems that farmers are faced by a number of problems while marketing their output. An attempt was made to explore the facts behind many of the problems faced in marketing of output. Biggest problem faced by the farmers is 'lack of remunerative price' and it was found that one of the major reasons was 'early sale'. Interestingly discussions with the farmers, traders and official authorities revealed some hidden facts behind their problems. Most of the farmers (84%) opted for an early sale as they were conscious of the fact that they are unable to derive a better price owing to their inabilities to sell their produce at a later date.

Traders buying rights over the produce of a farmer even before the produce gets ready for sale in the market are able to dictate the price of turmeric. Farmers are compelled to accept the low price offered in view of the fact that they are cash starved. Another factor leading to the acceptance of a low price is the fact that the
farmer is already indebted to the traders. Traders succeed in playing one farmer against the other and use peer-pressure on farmers who insist on a higher price. However, some of the large farmers who opt for sale of turmeric at the farm level are able to realise cash immediately on sale of rights over turmeric. This is because of relatively their high bargaining power. In case of some of the medium farmers and most of the small farmers, the amount payable by the trader is first adjusted towards dues on outstanding debts. The farmer receives only the balance amount.

Many farmers choose the agent or trader at the market place on the basis of their long association with the trader or on the basis of the reputation of the trader for fair dealing. In case of small farmers, many of them are compelled to trade through agents with whom they have a tie-up arrangement. They are already indebted to these traders who actually buy the produce themselves or on behalf of very large buyers from the outstation markets. It may be concluded that farmers, either because of compulsion or habit, do not explore the opportunities available for deriving a higher price by choosing from a wide range of selling options and are 'exploited by the intermediaries' which may perhaps be some of the reasons behind lack of remunerative prices.

Traders who buy the produce or agents who handle the process of the sale transactions have dominance in price-determination. The farmer in most of the cases is the price-taker, forced to accept the price offered to him by the traders. The reasons for trader-domination are very much obvious from the analysis already given above.
Even though adequate storage facilities are provided by the yard, access to such facilities is controlled by the traders. Neither is it economical for the farmer to move the produce to another market, owing to the small size of the 'lot'.

14. Findings proved that over and above 84 per cent of the farmers possess the intention to dispose the produce immediate to harvest and are not interested of the remunerative prices likely to be in the future date because of a variety of reasons discussed above along with weighment problem. Majority of the farmers felt that the process of weighment is very much disadvantageous to them. They lose the weight of their produce over passing days which consequently reduces their earnings.

15. Poor asset base make the transportation costs high. Most of the farmers use tractors to transport their produce from the farm to the market. A few small farmers, use bullock carts, since it would be uneconomical for them to hire a lorry or tractor as the size of the lot is quite small.

Tractors are preferred over the lorries by farmers since the tractor is more effective on unmetalled feeder roads than lorries. It is also more economical for the purpose of carrying loads of less than 5 tonnes.

16. Finance is the life-blood of any business activity and turmeric cultivation and trade are no exceptions to it. However it is quite difficult for majority of the farmers to raise finance necessary for carrying on cultivation. Cost of capital determines the profitability of operations in any economic activity. Large farmers report that their cost of capital is very low because they use their own funds which are claimed by 'cost-free' or 'zero-cost funds'. In addition to that they possess the advantage of sufficient 'asset-base' which results in improved profitability and makes turmeric
cultivation activity for the large farmers profitable. Most of the large and medium farmers derive the benefits of raising the funds advanced by commercial and co-operative banks which are available at a cost which is in the range of Re.0.75ps.-Re.1 per month for every hundred rupees drawn which also causes their cost of capital to be considerably low which enables them to accrue reasonable profits. However the cost of capital for the small farmers is very high. The main reason for the high cost of fund is their reliance on borrowings from the unorganised sector or the money lenders is very much high. Interest rates are very high which effectively mean a cost of capital rate of over and above 30 per cent per annum. This is the major reason which compels the farmers to sell off their produce at the earliest possible time.

A universally accepted fact is that the farmers should be very much conscientious about the profitability of their operations. He is also well aware of the ‘true cost of production’ but unfortunate is that he is not conversant with financial planning; they are simply concerned with cash inflows and cash outflows. Thus there is a need for educating the farmers from the side of the government, the yard and the large farmers to undertake financial planning in order to lessen the cost of production and increase their profitability and make turmeric trade comfortable to the members involved in it.

17. The present research clarifies that there is a ‘complex web of inter relations’ between farmers, farmer-traders and marketers. Majority of the turmeric farmers are only interested in turmeric cultivation, to make it clear they do not carry on or execute the task of marketing their produce and virtually hand over many of the functions associated even with agriculture to a set of farmers who buy rights over the produce
at different stages of the season. Interestingly it was made clear that the producer having the final product ready for consumption examines thoroughly the opportunity to sell the product either directly to the consumer or to any of the marketing intermediaries. Only 20 percent of the turmeric traders chosen as sample claimed that they themselves are cultivators too. Strong relations should be established between the cultivators and traders to result in a justifiable turmeric trade.

18. Nearly 61 percent of the turmeric traders are in the field of turmeric trading for more than 5-10 years and over and above 33 percent are in the field of turmeric trading for more than 10 years which proved that nearly all of the turmeric traders of the sample are established in the activity of turmeric trading and hence dominate the turmeric sector. They are also well versed with the instances where the turmeric cultivators express their inability and where they can be influenced and consequently can procure turmeric from them at least possible prices. However, this attempt of them is very much fruitful as fixation of purchase price of turmeric is predominantly influenced by the negotiations with sellers (which were made clear from table XI related to the turmeric traders that more than 61 percent of trader’s fixation of purchase price was made only through negotiations with sellers). However, before arriving at the final price through negotiations with the sellers the tentative price fixation is arrived by considering the prices prevailing in the outstation markets and prices of the previous years too.

19. Nearly 43 percent of the traders capital invested on turmeric trade is in between Rs.1,00,000 –Rs.5,00,000 and 18 per cent of the traders capital invested in turmeric trade was above Rs.5,00,000. This once again reinstated the fact that majority of the
turmeric traders chosen as sample were established with long association with the turmeric trade and in investing large sums of capital.

20. The major source of working capital for the turmeric traders is their own funds as nearly 46 percent traders were confident in stating that they rely on their own funds for their working capital needs. This might have been true with respect to the large farmers who rather dominate the sector. However about 35 percent of the traders are victimised by the punch of higher interest rates of the money lenders too this might be true with respect to the medium and small farmers too. It is a healthy sign that over 14 percent and 9 percent depend on the advances from outstation buyers and commercial banks which carry nil and nominal cost.

21. Results revealed that only 22 percent of the turmeric traders relied on traditional means of transport i.e., the bullock carts however, large number of them felt comfortable to use the tractors and the lorries to speed up their conveyance. Discussion with the traders with respect to existing transportation arrangements clarified that they were not satisfied with the aspect of transportation. They reported the fact that it was difficult to obtain the right kind of vehicle at the right place and in the right time. High cost of transport for small lots was the complaint of the small farmers. Delayed deliveries, careless handling were other problems frequently faced by the traders in the course of transportation of turmeric.

22. With respect to the method of storing used by the traders, traders who deal with the outstation markets, local wholesalers and retail dealers generally do not keep stocks for long and hence they use open yards to store turmeric and these traders account for 31 percent of the total sample of selected traders. Majority of the turmeric
traders who are already proven to be established basing upon the above analysis with respect to years of existence in the trade, capital invested and a number of other matters accounting to about 61 percent of the sample use their traditional godowns for the purpose of storing turmeric. Only a very few large volume traders say 8 percent resort to the usage of cold storage units.

23. With reference to the grading practices, nearly 71 percent of the turmeric traders undertake grading which is very much true with reference to sale to local wholesalers or retailers. These traders preferred grading in order to get a higher price for their produce. However, the rest of 29 percent did not prefer grading before sale or dispatch where the deal was with independent market functionaries and outstation markets.

24. In the analysis made with respect to the basis of grading the traders used size, colour, texture for the purpose of grading. Over 75 percent of the traders, who opted for grading used skin texture, colour as the basis of grading and only 25 percent of them used size as the basis of grading. However discussions with them clarified that their choice of basis of grading was in accordance to the requirements of different needs, wants, purchasing capacities of various segments of the market.

25. Majority of the traders who are proven established from various aspects of analysis sell their produce to the outstation markets and wholesalers accounting to 31 percent and 29 percent of sample of traders selected for analysis. However, they sell their produce to the retailers and the customers 20 percent each also.

26. The major ruling factors with respect to determination of price of turmeric fixed by the traders in the market are ‘Arrivals’ into the market and demand for the product
in the market counting to 42 percent and 28 percent respectively. However, outstation price and mutual understanding between the traders are the factors of significant impact on determination of price counting to 17 percent and 13 percent respectively.

27. The perception analysis of the turmeric traders with respect to high price margins in turmeric trade revealed that factors such as heavy quantity loss, possible deterioration in quality and long chain of middlemen effects more or less equally as they were stated as determinants by 32 percent, 28 percent and 40 percent of the sample chosen for the purpose of analysis.

28. Most of the traders in turmeric sector stated that they preferred to locate their outlets at locations proximate to residential areas. Establishment of the outlet at a central part of the town was an equally attractive alternative for such traders as they accounted to 32 percent. However Itinerary sales is also prevalent in the turmeric sector trading (25 percent of the sample).

Based on the findings of the study, the researcher believes that the hypothesis of the thesis is established and validated to a significant degree. The present study has allowed the researcher to obtain a thorough understanding of the operation of the Regulated Market Yard. Insights gained through a perusal of the functioning of the Regulated Market at Duggirala, survey of the opinions and views of farmer-traders at the yard, observations of the enumerators, interviews with officers, agricultural experts and persons closely associated with the yards have helped the researcher comprehend the processes of marketing and identify deficiencies and shortcomings reducing the effectiveness of the Regulated Market System.
FOCUS ON LACUNAS OF SELECTED REGULATED MARKET-DUGGIRALA FOLLOWED BY SUGGESTIONS

1. It is suggested that the propaganda machinery of the market committee should be geared up so as to make the farmers aware of the benefits of dealing regulated markets. It should undertake an intensive campaign using the local cable TV network, maintaining banners or sign boards in busy street corners, selecting places like commission mandies, bus stand and input shops, advertisement in the farmer markets.

2. As the farmers who have less marketable surplus and those who are dealing with cash crops are generally unwilling to participate in regulated markets, it is suggested that by opening separate platforms and attracting more cash crops traders especially the wholesalers and the farmers of such crops may be induced to participate in these markets.

3. It is observed that the Traders are in a dominant position and have the upper hand in trading of turmeric. To enable a healthy turmeric trade environment the farmers must form associations which ultimately cause to strengthen the hands of the farmers too in the turmeric trade.

4. There is a great concern about the scale of operation because farms are small and getting smaller with passing of time. Hence, it is difficult and costly to provide knowledge of modern agricultural practices. In view of the fact that most of the farmers have small-holdings and the marketable surplus is of small lots, any marketing effort would be beyond the efforts of individual farmers. Co-operative action in the fields of cultivation and marketing alone can solve many of the problems
faced by small and medium farmers. There is a need for revitalising this key sector in
the rural economy. The wide dispersal of produces with small quantity, results in
costly transportation and handling efforts to ensure the final markets.

5. Long marketing chains and clumsy transfers, result in substantial leakage of value
and actual physical loss. Numerous intermediaries widely spread between farm gate
and consumer, increase the cost of consumer but not the value perceived by the
producer. With each middleman extracting their share of profits, the percentage share
of the consumer rupee going to the farmer is as low as 30-35 percent. Every avenue
available for reducing the length of the distribution channel must be explored and
utilised. An ideal chain should bring all stakeholders engaged in production system
on common platform to contribute their best while ensuring fair deal and
transparency.

6. Value addition is always limited because of poor linkages with agro processing
industries. There are also inefficiencies at post harvest operations like cleaning,
grading, storage, handling and packaging. The losses occur due to excessive
moisture, infestation by insects, pests and rodents etc. Thus there is a need to
strengthen the post harvest management facilities.

7. The study has brought to light the fact that storage facilities, in the strict sense of the
term, are not utilised. Farmers try to avoid the need for overnight storage of the
produce by disposing off stocks at a throwaway price after prolonged period of time.
Farmers leave the produce, unprotected, on the floor in case it becomes unavoidable.
The Government must take all steps necessary to operationalise ambitious low-cost
storage system plans based on alternative technologies that even today remain only on paper.

8. Reluctance to use storage facilities and capacity to hold the produce, the farmers are compelled to sell produce immediate after harvest. Thus their net income is far low as compared to large holders. Thus there is a need to concentrate on modern warehousing and storage facilities to overcome the problem. For storage facilities, the government should not depend on private agencies which are also recommended by the National Commission on Agriculture.

9. Farmer's disputes at the Yards are lowering the prestige of the regulated market system and also providing an opportunity for vested interests keen on sabotaging the system to tarnish the image of the system. In view of the competition for business among farmers dealing with similar produce, disputes are bound to arise between farmers. A formal mechanism for an early arbitration and settlement of disputes must be established at the market place.

10. The Government of Andhra Pradesh has required all wholesale dealers to shift their operations to the 'market yards' established by the Government outside city limits. However, in most of the cases wholesale traders have managed to continue their operations at the old markets and habituated places situated within the city limits by the use of delay tactics designed to subvert provisions of the statute. This is creating unhealthy competition within the trade with the wholesalers also taking up retail business within the town. The Government must take steps to ensure that the trade is strictly regulated and conducted within the premises of the market yard.
11. Concentration on grading of turmeric would help farmers who bring their produce of a high quality gain a premium for their produce. This alone can increase quality consciousness among the farmers and the traders. In addition, the adoption of standard grades would also help the Market Yard build a reputation for quality and attract the quality conscious segment of traders in the Yard.

12. Farmer reliance on high-cost funds borrowed from money lenders and pawn brokers is a primary cause for low incomes of farmers. Branch managers of nationalised banks/co-operative banks in the town/city should be persuaded to provide loans to farmer-sellers trading at the yard at low rates of interest treating such loans as loans to priority sector. Farmers should be persuaded to repay small amounts from out of the sale proceeds. This measure would help release many farmers from the clutches of money-lenders and pawn brokers.

13. Adequate or reasonable profits alone can motivate farmers to carry on their activity and invest funds and resources needed for modernisation and development. There is a rational relationship between prices and cost of production. There is a need of scientific assessment of the cost of production of different varieties of turmeric in the district.

14. Local brokers are often in collusion with arhatiyas and therefore the price which is settled is generally to the advantage of the arhatiyas and not to the farmer. Thus to increase the profit it is necessary to strengthen value chain which can reduce the cost of production and realise better value to the producers. An ideal value chain should bring all stakeholders engaged in production system on common platform to contribute their best while ensuring fair deal and transparency.
15. Farmer does not ordinarily get the information about the ruling prices in the big markets. As a result the farmer have to accept whatever price quoted to them and have to believe whatever the traders tell them. Price-differentials prevailing between different markets across the state or country are justified neither by the fact of transport costs nor by the need for risk premium. Proper networking of markets across the country could ensure flow of turmeric from low price markets to high price markets. Such a system would provide benefits to turmeric farmers all over the nation.

16. Awareness and exploiting the benefits of trading with future market is restricted to big farmers, traders and other intermediaries, except producers.

17. The amount procured under future trading is considerably large for an individual farmer.

18. In farming sector where farmers are depend on external agencies and where marketing of produce is not well planned, the profit margins are under severe pressure resulting in many failures. It is indeed efficient backward and forward linkages which play significant role in lowering the cost of production and higher price realisation resulting in higher returns but there are ‘Poor Backward and Forward linkages’ of APMCs with producers as well as agro-processing industries which needs to be strengthened..

19. Lack of linkage and orientation with R & D institutions, as well as poor market intelligence.

20. Lack of knowledge of quality parameters and standards.
21. Lack of vision, leadership, professional competence etc., sw restricts the development of APMCs and increases the corruption and malpractices.

22. Role of APMCs for building integrated channel to connect farm gate to food plate is negligible.

23. Existing markets do not play a pro-active role in attracting produce.

24. Suitable structure of support prices for various farm commodities should be adjusted from time to time.

25. An appropriate regulatory and policy environment is also equally necessary. Alongside, enabling policies need to put in place to encourage procurement of agricultural produce directly from the farmer’s field and to establish effective linkage between farm production, retail chain and food processing industries.

26. Rural roads must compliment and co-ordinate with railways, nearest waterways and airports if possible.

27. Extending of financial support for modernisation of the agro-processing units is needed. Processing units should utilise full capacity. There is a need to find out markets for agro-processed products within and outside the country and proper packaging technology must be improved.

28. The existing marketing staff must be increased and adequate training must be given.

29. The market committee may have their own mode of transport like lorries, trucks, mini-lorries and tractors. These vehicles may be supplied to the markets for the use of the farmers for bringing their produces to the market yard. For rendering this service, concession may be given in collecting transport charges. The compatibility
between improved marketing facilities and better transport facilities would ensure financial benefits/good returns to the farmers.

30. In view of liberalisation of trade and emergence of global markets, it is necessary to promote development of competitive marketing infrastructure in the country and to bring about professionalism in the management of existing market yards and market free structure. While promoting the alternative marketing structure, the government however needs to put in place adequate safeguards which are essential to avoid exploitation of farmers by the private trade and industries.

31. The Regulated Market Yard provides for the sale of farm inputs like seeds, fertilisers and pesticides at fair/subsidized prices within the Bazaar premises under the supervision of the employees of the yard. However, the response of the farmers to this facility has been lukewarm ever since the inception of the scheme. It is evident that farmer-sellers, for a variety of reasons, prefer purchase of inputs in their most accustomed places. It is advisable to the yard administrative machinery to educate the farmers the need and benefits of utilising the facility provided by the yard. This would accrue cost benefits to the farmer as well as improved and qualitative productivity.

Considering the emerging issues and challenges, government support is necessary for the development of marketing of agricultural produce. The government may adjust suitable budget allocations to rural infrastructure plans and proper supervision for effective plan implementation. It should concentrate on core areas like transport, communication, roads, credit institutions, crop insurance for better utilisation of land and water at appropriate level. The rural people and markets will
definitely increase rural income and reduce poverty, on the whole countries economy will boost at an expected level. Management may recommend/advice the central and state governments on suitable infrastructure development, current problems in rural markets and problem solving techniques.

32. Farm implements are to be developed and placed in market to meet different operations of different crops and different categories of farmers in addition to the different agro-climatic soil conditions. This mechanisation is inevitable and requires the government financial support.

33. Department of Agriculture needs to be strengthened to help farmers for improving the productivity and creating awareness in solving their problems rather than being mere spectators/attending to paper work, meeting, etc.

34. Agricultural operations are affected due to non-availability of productive labour in rural areas. Agricultural operations require labour to work in unfavourable conditions. To overcome this there is necessity of co-existence systems which has to be explained to the farmers in order to reduce selfish attitude/individualistic approach/exploitation techniques. There is a need to develop agro-based industries based on raw materials available and marketing development to prevent migration of the labourers. The labourers should be learnt that they are occupying better position in the society in terms of income.

35. Regular surveys and studies of the functioning of the regulated markets will help the government streamline the performance of the regulated markets. The government can profitably use the services of the staff and students of Government/aided colleges to conduct such surveys and studies.
36. There are some regulated markets which are virtually sick. Activities in such markets are on a low key. The volume and value of business at the markets does not justify the continuance of operations. However, there is adequate scope for the development of the business. The government should constitute revival committees consisting of the representatives of farmers, traders, customers, officers, the media, public interest organisations and leading citizens of the town/city to come up with the plans for streamlining the operations of the bazaar. This measure would increase public participation and public confidence in the regulated markets.

37. Non-Governmental organisations (N.G.Os) have come to play a very important role in the management of the social affairs during the recent years. NGOs have played a stellar role in the vitalisation and reform of a number of social institutions. The government must establish formal mechanisms facilitating the involvement of NGOs in the Regulated Market movement.

38. Frequent visits by the Ministers, MLAs, MPs and VIPs to Rythu Bazaars would bring the much-needed publicity for the markets. During the recent years, such functionaries have not been making frequent visits to these markets. The government must formally request/direct such officers/dignitaries to visit regulated markets and inspect them and forward a report of their observations to the Directorate of Marketing, Government of Andhra Pradesh. In addition to bringing publicity for the scheme, such a measure would also lead to a better control and supervision of the system.

39. Farmers are generally indebted and keen to dispose of produce to clear dues to money-lenders, banks etc., so as to borrow again. Thus farmer is encountered with
low prices and improper market for his agricultural products, but pay high prices for purchase of inputs, which are not assured of quality. The profitability depends on price of agricultural product. The fluctuation in price is very wide and unpredictable which destabilises economic conditions of farmers and discourages the farmer. Hence there is a need to develop infrastructural facilities for storage and transportation of agricultural produce.

40. The move to create parallel private markets is fraught with many possible dangers and therefore the commission strongly opposes any such moves. However, the existing market yards need to be increased, strengthened and their functioning has to be improved.

41. Each mandal should have a market and depending on the need, purchasing centres may be created for a group of 5-6 villages.

42. Market committees must be managed by the farmers themselves. The practice of nominating the chairman and other members to the market committees should be stopped and elections should be conducted to the market committees. Suitable guidelines and procedures may be worked out to ensure that the management of these bodies is kept in the hands of the farmers.

43. The following proposals are made with respect to Prices and Procurement:

Government initiatives in the direction of price-support and procurement of turmeric would be very helpful in the provision of ready market for turmeric produced in the area. Such initiatives would be a blessing to the turmeric farmers of the area. The yard officials may request/require the government in the following lines:
i. The state government should demand from the central government the introduction of a system of variable tariffs and if necessary quantitative restrictions on turmeric, in order to ensure stable import prices that protect domestic cultivators and their livelihood.

ii. A State-level procurement coordination committee under the chairmanship of the chief-secretary may be constituted in which the agencies of Government of India and State Government and departments should be the members. This Committee should meet before the commencement of the procurement season. The capacity of the agencies for procuring turmeric need to be assessed well in advance of the harvest, and appropriate arrangements should be made to enhance the capacities of the procurement agencies.

The high fluctuating prices and sometimes un-predictable prices ruling in the market are against the interests of the farmer-trader. In this connection a supporting price, fixed by the government will definitely control the distorting price trend.

iii. The state government must in any case institute facilities for the public procurement of turmeric at high incentive prices to encourage their cultivation.

iv. A market price stabilisation fund should be set up, either from the market surpluses or through an exclusively created fund for this purpose.

44. The following proposals are made with respect to the Marketing Arrangements:

i. The provision of adequate and non-exploitative marketing arrangements must be the basic goal of the marketing department.
ii. The move to create parallel private markets is fraught with many possible dangers and therefore the commission should strongly oppose any such moves. However, the existing market yard should be strengthened and its functioning should be improved.

iii. Market committees must be managed by the farmers themselves. The present practice of nominating the chairman and other members to the market committees should be stopped and elections should be conducted to the market committee. Suitable guidelines and procedures may be worked out to ensure that the management of these bodies is kept in the hands of the farmers.

45. The following proposals are made for **Infrastructure In Market Yards**:

i. The funds collected as market fee from the farmers should be utilised exclusively to improve the requirements in the market yards.

ii. The procedures being adopted in the market yards require to be studied in depth by a specialised body constituted exclusively for this purpose. The body may go into various aspects of functioning of market committees and come up with suitable report for overhauling the market committee’s structure and functions.

iii. There is ample scope for modernising of existing markets by utilising the information technology and other developments in the field of electronics and telecommunications.

iv. All the market committees should be equipped with adequate electronic scales and duly fitted with printers and printed receipts must be given to the farmers.

v. Physical facilities in the form of clean toilets, drinking water, shelters, rest sheds and canteen have to be created keeping in view the number of farmers attending the market yard especially during the peak seasons.
vi. Additional facilities and other infrastructure including cold storages have to be assessed market committee-wise and a plan of action should be prepared for developing the required infrastructure keeping in view with actual requirements.

46. The following proposals are suggested for Market Procedures:

(a) The payment procedures and procurement procedures need to be transparent and publicised widely to dispel the rumours and suspicions in the farmers.

(b) The unauthorised collection of commissions must be curbed immediately.

(c) The petty malpractices which are leading to harassment of the farmers in the market yards should be eliminated by educating the farmers and other stakeholder operating in the market yards.

(d) The practice of deferred payments and delayed payments must be stopped and payment across the counter should be arranged on the same day of the transaction.

(e) As the commodities are graded and prices are being fixed according to the grades, there is a need for trained graders in each market yard with laboratory facility.

(f) The procedures and rules covering the Rythu Bandu scheme have to be revisited to make them farmer-friendly while ensuring that the scheme is not misused by the others.

SOME IMPORTANT CONSIDERATIONS NEEDED FOR TURMERIC CULTIVATION

47. Turmeric cultivators has to focus on five key areas, which are irrigation, biotechnology, protected cultivation, post-harvest technology and crop-specific missions.
48. As majority of the areas used for cultivation are mostly rain fed, there is need for augmenting the **irrigation facilities** and this can be done by rainwater harvesting.

49. **Application of biotechnology in agriculture** through usage of biotechnological tools in order to produce high yielding, pest-resistant and drought and flood resistant varieties of crops is essential.

50. **Protected cultivation** is important to increase the production of crops in the country. Through protected cultivation two to three times higher yield of crops can be realised which can further boost the agricultural production in the country.

51. Value addition in the form of food processing is another key area, which can bring sustainability to the food security as agriculture produce worth crores is wasted every year due to post-harvest losses. This requires usage of **post-harvest technology**.

52. There is a need for crop specific and time bound **crop specific missions**. The goals of these missions should be redefined every 5 years to infuse new technological tools.

**53. REQUIREMENT OF INFORMATION TECHNOLOGY ADOPTION IN AGRICULTURE**

The present system of marketing information is inadequate both in terms of reach and reliability. The information system does not address the specific requirements of the farmers and the traders. There is a need for revamping the present system of marketing information to make it capable of providing area-specific, problem-specific and high-quality information which the farmer could use for better decision making at different stages of cultivation and marketing operation.

The effectiveness and efficiency of the information used in agriculture can be increased multifold by the adoption of information technology in agriculture.
Information access and improved communication is viewed as having direct implications for the socio-economic development of the nation. The farmers still face the problems of inadequate information related to cultivation of crops, the presence of which could have enhanced the decision-making capability of the farmers. I.T. seems to be a promising medium through which relevant information can be communicated to help in farming and post harvest process. **Rural Communication must be in Regional Language and Dialects.**

Areas of Importance:

The following can be looked upon as the areas of development in Information Technology to leverage information in an effective way to decrease the order and delivery time. It would also help in customer relationship management.

i. A database for crop can be maintained which includes important information about the types of crops and land holding pattern. This information can be transmitted via the internet to the database server. The information thus accumulated can play a significant role in the decision making process.

ii. Production techniques and information inquiry system should be created. This repository should ideally be having the best and innovative techniques developed by R & D institutes or some progressive farmers. It would be a great source of information for the farmers to access and utilise.

iii. A system for inquiry about farm machineries can be developed by the companies operating in the farm machinery sector. This can help the farmers to get information about the best equipment to use and similarly the companies can promote their farm equipments.
iv. A similar system for agricultural inputs like seeds, fertilisers etc can be developed by the relevant companies.

All these efforts on Information Technology will enable farmers to take more precise and informed decisions through the enhanced control that they will have on the information channels. However the government has initiated steps to achieve significant goals in this regard. The National Agricultural policy lays high importance on the implementation of IT for agricultural sector and the department of agriculture has also led visionary plans for the same but the use should be from the side of the farmers which should not be disregarded.

54. It is suggested that at least once in five years the working of the market committee and regulated market should be reviewed by an expert committee. The recommendations of such committees should be implemented in good spirit.

55. SUGGESTIONS FOR TURMERIC CULTIVATORS

i. The Government must provide a ‘package of initiatives’ for young professionally qualified agricultural graduates who take up turmeric cultivation either on an individual or collective basis. Such efforts would provide a model for other farmers to emulate.

ii. Till recent times, turmeric cultivators strongly believed that irrigation was not important in turmeric cultivation. There is a need to educate the farmers on the need for scientific assessment of water needs of the farm. Farmers must be encouraged to adopt low-cost and high efficiency irrigation systems like rain harvesting, pitcher irrigation, etc. Grant of subsidies on equipment needed for adoption of such irrigation technologies would be helpful to the farmers.
iii. Use of improved cultivars namely, Suvarna, Suguna, Sudharshana, Prabha and Pratibha is essential.

iv. For control of pests and diseases, application of insecticides and bio-pesticides (Bacillus thuringiensis product) need to be used.

v. Proper technologies for the storage of seed rhizomes, seed treatment with fungicides and insecticides and use of leaf mulches should be adopted.

vi. Farmers who undertake processing are unable to find a market for their products, primarily due to lack of marketing skills. While they have been provided training in the technical aspects of the business, their skills in the area of general management and marketing are very poor. The Government must ensure that processing unit owners undertaking farming activity too are exposed to professional training in the area.

vii. Crop insurance facility may be extended to turmeric crop which should be made voluntary to the farmers and compulsory for bank finances.