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Rapporteur's Report on Agribusiness/Trade Opportunities for Inclusive Growth

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I

INTRODUCTION

Though the importance of agriculture in Indian economy has declined over time, it is still the largest employer of workforce and majority of the Indian population is directly or indirectly dependent on it for their livelihood. India is the second largest producer of rice, wheat, fruits and vegetables and milk. But, due to the size of its population, the share of India in world's agricultural exports is not very large. Indian economy, still being agrarian, is subject to many export-import regulations, though these are liberalised since the introduction of New Economic Policy in 1991 and India becoming the member of WTO in 1995. Agricultural exports are still governed by our concerns of food security and are subject to export restrictions on grains. Yet, India is the traditional and largest exporter of spices and condiments. In recent years, India has also emerged as a large exporter of grains especially rice due to their high production. In 2012-13 India harvested 257 million tonnes of foodgrains and our buffer stocks touched around 70 million tonnes. Since the beginning of 21st century, India has also diversified its exports to horticultural products but is still confined to export these products fresh with little value addition.

Unfortunately, the value addition and processing in agriculture is very less in India. Of total production, only around 7 per cent undergoes some processing and around 25 per cent some value addition. Consequently, India has not been able to benefit much from the international market and accelerated agricultural growth. Agricultural products are mostly traded raw unprocessed due to which the scope of income enhancement to farmers is limited. The consumption pattern has shifted in favour of horticulture, livestock and processed products both in rural and urban India during the last one and a half decade. The production responded to this change in demand pattern and production of such agricultural products increased at a higher rate during early 2000s and steered agriculture growth. But, in recent years, its growth rate has also declined as compared to the earlier period. Similarly, there was some increase in agriculture value addition and processing but it was not sufficient to

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transform the agricultural sector towards higher growth trajectory and exports. The agribusiness and organised food retail has not taken off as was expected. It is still facing many hardships in the form of inadequate infrastructure, lacking institutional arrangements and policy support. Food retailing is dominated by unorganised sector. The marketing system is riddled with multiple intermediaries usurping a large share of the consumer price without any significant contribution, and post production wastages is very high especially in horticulture and livestock products. The outreach of organised retail to rural masses is extremely limited due to poor road connectivity, grossly inadequate availability of power, diverse cultures, tastes and preferences and low incomes. Foreign direct investment in organised retail is still subject to many conditions, which are considered to be not conducive for its promotion. Security and governance are also important in some parts of the country, inhibiting the setting up and subsequent expansion of organised retail despite the fact that multi-brand retail with upto 51 per cent foreign equity has recently been allowed.

Equity issues have also become predominant in Indian economy as well as in Indian agriculture in recent years. Wide differences in growth of primary and other sectors of the economy with consequent fall in the share of agriculture in gross state domestic product (GSDP) along with very little movement of work force from agriculture to the other sectors and still large scale dependence of our rural population on agriculture, disparities in income and access to health, education and other services has grown between rural and urban areas. It has been argued that the recent growth of around 9 per cent in Indian economy during the last 10 years (except 2012-13) has bypassed rural people and rural areas. Though the growth rate of agriculture improved from around 2 per cent during 2002-07 to 3.6 per cent during 2007-12, the disparity in rural and urban incomes has not narrowed down. Further, the benefits of agriculture growth are not considered to be equally shared among different farm size classes and among different regions of the country due to difference in resource endowments, infrastructure, institutions and policy mechanisms. Promotion of exports especially of horticulture, livestock and other such products and expansion of agribusiness was supposed to lead to better growth opportunities for small holders and landless labourers in rural areas due to their higher labour intensity, vertical integration of the market, value addition and employment generation. Therefore the theme of Agribusiness/Trade Opportunities for Inclusive Growth tries to address these issues by critically examining such variables in different dimensions and sifting out the factors which resulted in higher growth with better inclusiveness.

In total 39 papers were submitted under this theme covering many issues, areas, crops/enterprises. For better understanding, these papers were divided into three categories: (i) Changes in consumption pattern and their impacts, (ii) Trends in exports, trading partners, competitiveness and food safety standards, and (iii) agribusiness and its impact on production, marketing and economic efficiency and equity. A brief summary of these papers compiled under above mentioned heads is given below.

II

CHANGE IN CONSUMPTION PATTERN

Demand is the most important determinant for growth to which production responds under given resource endowments, infrastructure, institutional arrangements and policy frame. Broadly speaking, the consumption pattern in rural and urban areas has changed during the last two decades due to change in income, lifestyles, demography, etc. Besides this, convenience, awareness about health foods has influenced the eating habits of Indians and consumption of different foods. The consumption of cereals on an average has fallen while that of milk, fruits and vegetables, meat, chicken and fish, etc. has increased. Even the consumption of beverages and processed foods has gone up in recent years. All these changes have signalled to better growth opportunities for such products, which helped these sectors to register higher growth as compared to food crops. A. Venkateswara Rao while discussing the changes in consumption pattern reported that the proportional expenditure on cereals declined from 38.75 per cent in 1993-94 to 29.62 per cent in 2009-10 in rural India and from 26.13 per cent to 22.66 per cent in urban India respectively, while for milk, it increased from 15.02 per cent to 16.13 per cent in rural areas and from 17.94 per cent to 19.07 per cent in urban areas, for fruits and vegetables from 12.32 per cent to 14.50 per cent in rural areas and from 14.86 per cent to 15.68 per cent in urban areas. The proportional expenditure on beverages went up from 6.58 per cent to 10.47 per cent in rural areas and from 13.18 per cent to 15.53 per cent respectively in urban areas indicating growing influence of western lifestyle, media and consumerism. These changes in consumption patterns have offered incentives to supply chains, super markets to enter into the Indian food market. The change in food consumption pattern in the recent period of 2004-05 to 2009-10 at a disaggregated level of income classes was presented by B. Sheshagiri *et al.*, in their paper on household monthly per capita consumption expenditure in India. They reported that in the year 2009-10 the proportionate expenditure on food accounted for higher share than on other items like health, education and shelter etc. In rural areas it was around 53 per cent in southern states and around 57 per cent in northern states. The respective share in the urban areas was 43 per cent and 46 per cent. This indicates that the living standards in the urban areas is better as they have major share of expenditure on non-food items. In rural areas of Bihar it accounted for large share of food items at 64.7 per cent and Punjab accounted for lowest at 48 per cent. This shows low level of poverty in Punjab and very high poverty ratio in Bihar. Further, the percentage increase in expenditure on non-food items was higher than that of food expenditure in both the areas, i.e., rural and urban.

Some studies brought out the consumption changes on the basis of micro level survey data. A.K. Gauraha and others examined the food consumption pattern in rural areas of Chhattisgarh state on the basis of household survey of 120 farm and 80 non-farm households and observed that the public distribution system plays a vital role in

food security of non-farm houses as well as marginal farmers to meet their cereal requirements. On an average, the dietary intake of farm households was lower by more than 100 per cent than recommended dietary allowance in case of vegetables, milk and milk products. The deficiency was still more severe in non-farm households. In an another study on expenditure on processed food in rural and urban areas in Himachal Pradesh based on micro level data, K.D. Sharma *et al.,* brought out that expenditure on processed food items was comparatively higher in urban than the rural areas. Most of the food products were locally made in rural areas while branded purchase was dominant in urban areas. The processing was basically primary in nature. Taste, quality, attractive packages of the products were the major considerations for purchase of processed food products. Quality of the product may emerge as hallmark of success or failure of the food processing industries in future.

III

AGRICULTURAL EXPORTS: TRENDS, DIRECTION AND PROBLEMS

Agricultural exports have remained predominant in Indian exports since Independence. However, due to globalisation of the agricultural markets, the volume and pattern of agricultural exports have undergone changes. Yet, India has not been able to capitalise in a significant manner the integration of the global trade in agriculture. The share of agriculture in total exports has declined from 18 per cent in 1991-91 to around 13 per cent in 2011-12 as reported by S.C. Srivastava and R. Vijaya Kumari in their papers, while total agricultural exports in value terms increased from Rs. 6 thousands crore to Rs.1.87 lac crore during this period. The composition of agricultural exports has also undergone change. Marine products, tea, oil meals, cashew, spices and coffee were the main items of export in the year 1991-92 accounting for 65 per cent of the total agricultural exports, the share of which declined to 28 per cent in 2011-12. Rice, cotton and wheat export accounted for about 15 per cent in the year 1991-92, which increased to around 26 per cent in 2011-12. The other items which improved their share in agricultural exports were guargum meal, castrol oil, fresh fruits and vegetables, processed vegetable, sugar, meat and preparations and paper and wood products which showed that India is diversifying its export folio. India is the main player in the export of basmati rice in the international rice market, but in recent years has also emerged as one of the important exporters of rice, wheat and sugar due to significant increase in production. Kerobim Lakra and others studied the comparative advantage of major agricultural exports of India by using revealed comparative advantage approach during 1991-2010 and observed that exports of rice, tea, coffee, spices and castor oil have maintained their comparative advantage. The comparative advantage in cotton has recovered in 2006. The comparative advantage in vegetable and sugar also seems to have improved during the last five years. Unfortunately, India is still largely dependent on the export of raw products and could not avail much benefit of opening of the international market for processed food products due to its low agribusiness activity.

Three papers written by M.S. Jairath, Arup Adhikari and M.K. Sekhon, and Shweta Kumari *et al.*, dwelt on the issue of sanitary and phytosanitary (SPS) measures as well as other technical barriers to trade with respect to their compliance and consequent impacts on Indian agricultural exports. Developed countries follow such measures very stringently. Sometime these measures are also used as non-tariff measures to deny entry to the agricultural exports from the developing countries into the markets of developed countries. The importance of such measures has increased for India due to diversification of its exports to horticulture and livestock products in raw and processed form. Traceability, certification and other technical barriers to trade like labelling, packaging and special nutritional attributes also influence significantly the international trade in agriculture in recent years. Therefore, meeting such standards of international markets and to supply safe and quality products is of paramount importance to tap the export opportunities for Indian farmers.

There are many instances where Indian agricultural exports are denied entry into the market of developed countries on the basis of such measures and other technical barriers to trade. Indian mangoes and grapes face barriers to their trade in developed countries like USA, Australia, New Zealand and Japan. Lack of technology and basic infrastructure in agricultural products in India are the major hurdles in terms of technical barriers to trade in consumer markets of developed countries. To follow the practice of traceability when the produce is procured from a larger number of small producers is another issue which is hindering the scope of promoting agricultural export in India. Export certification takes into account the concept of equivalence and thus requires a strong raw material control system at the point of entry into the processing unit. Such equivalence system is not accepted by importing countries.

India also faced rejection of its consignments on the basis of presence of chemicals residue higher than the permissible limits in the importing countries as well as on the basis of other food safety and quality parameters. Basmati rice, organic soybean etc. are some examples where developed countries refused to accept the consignment of Indian exports. In case of export of spices from India, various countries have their own SPS measures. Aflatoxin levels and pesticide residual limits are the most important parameters that affect the export of spice from India. Certification tests by the Indian Laboratories are also not accepted in European Union and other developed countries despite the fact that same testing methods and protocols are followed in India.

In the light of the importance of food safety issues in the quality agriculture, India has initiated some strategies to strengthen its Food Safety Control System. M.S. Jairath and Purnima Purohit in their paper discussed the Food Safety Regulation followed in food business and their compliance in India in the context of Food Safety and Standards Act 2006. Only 2 per cent food business operators are licensed or registered, which is the requirement of this Act. The Food Safety Law is poorly implemented in the country especially in the case of fruits and vegetables. The infrastructure and logistics required to promote agribusiness in the country is grossly

insufficient. Cool chambers, scientific ripening chambers, refrigerated vans, testing labs are not available in the modern markets. Integrated agriculture supply/value chains in India with the focus on compliance to Food Safety Standards are grossly inadequate. Food safety objectives require food industry to meet good hygiene practice, hazardous analysis agriculture control point (HACCP) system, good agriculture performance criteria and other protocols introduced by codex alimentary and other international standards. These efforts were made to harmonise food control legislation between countries to ensure that consumers get quality and level of safety of food. He suggested many strategies to meet these challenges in order to enhance agribusiness in the country. These measures include building of soft and hard infrastructure for promoting private public partnership, accredited labs, reforms in APMC Act to ensure premium payment for better quality produce and innovations in management. Further, sensitising the public about food safety risk and their prevention, educating and training farmers on personal hygiene along with safe application of pesticides and safe spray technology, integrating small holders and traders with food safety and quality network etc. are important for promoting agribusiness and exports from India so that agriculture sectors with active and strong participation of small holders can be taken to higher growth trajectory.

IV

AGRIBUSINESS: STATUS, PROBLEMS AND OPPORTUNITIES

There were 21 papers received in this section. The papers focused on the role of contract farming, organised retail, co-operatives and market integration to promote agribusiness in India. Many studies also discussed other issues such as the occupational structure and arrangements, micro-irrigation, farming system approach, Kisan Credit Cards, processing, dairying, etc. for inclusive growth.

The papers on contract farming highlighted the manner of operations of the contracting firms/organisations, performance of the contracts, impact of contract farming and inclusiveness of the contracts. Shiv Kumar and others highlighted that majority of the contracting firms were privately owned or joint ventures and their operations were spread over more than one state. The involvement of domestic as well foreign contracting firms came out in the study by Pramod M. Chandakavate and others. These firms not only cater to the domestic markets but go for exports. The contracts usually take place verbally and their performance is determined by the design of contract (Shiv Kumar and others) and peer pressure is the most common mode to ensure the contract compliance as highlighted in the paper by Varun Miglani. Shiv Kumar and others in their paper also brought out that the gap between pre-agreed price and open market price was influencing the contract fulfilment rate while the length of contract had no significance on it. The contracting companies used to select their farmers on the basis of certain parameters which are critical for better performance of their crop. Assured irrigation appeared to be one such

parameter as highlighted in the study by Miglani. Contract farming helped in improving access to better quality seeds, better machinery, irrigation machinery and extension services (J. Sridhara and S.B. Hosmani, Varun Miglani). Braja Bandhu Swain highlighted that the contract farmers were specialising in the contract crop/variety, while the non-contract farmers were specialising in the non-contract crop/variety. While it is usually expected that contract farming may lead to an improvement in the resource use efficiency, Sridhara and Hosmani have reported over use of seed in their study. These kinds of issues, however, need further investigation. The issue of inclusiveness has also been discussed mainly in two papers. While Sridhara and Hosmani find the contract farming mechanism to be inclusive as it largely recruited smallholders, Miglani could not throw much light though the title of the paper indicated it. Abhishek Kalia and Snehal Mishra also made an attempt to study the role of contract farming of Tulsi (*Oscimum Sanctum)* in improving the farm economy.

The potential of the organised retail in promoting the agribusiness was investigated in three papers. These papers mainly focused on the functioning of the organised retail, benefits to the farmers and impact on the traditional retailers. D. Suganthi outlined that the supermarkets were procuring the produce either directly from the farmers or through dedicated traders. As there was no written agreement, there were incidences of reneging of the informal contracts by the farmers. Unlike the traditional markets, the supermarkets were not purchasing the whole produce of the farmers. Only about one-fourth of the produce which was of relative better quality was being bought by the supermarkets and there existed the price premium for better quality. M.N. Waghmare and others reported a substantial reduction in the cost of marketing through supermarkets as compared to the traditional markets, leading to an improvement in the profitability. The channels involving supermarkets were also reported to show higher market efficiency. However, a study by I.V.Y. Rama Rao and others could not establish the impact of corporate retail chains on employment, though these chains resulted into a decline in the number and sales volume of the traditional retailers. The traditional retailers were responding to the entry of corporate retails by improving their business practices and upgrading technology. Both the studies by Waghmare *et al*., and Rao *et al.,* reported an increase in the share of producer in consumer's rupee through participation in the organised retail chains.

There was one study on dairy co-operatives by Anjani Kumar *et al*. It highlighted that dairy farms linked with co-operative milk processing facility had relatively larger herd size and better quality milch animals as adoption of improved breeds was higher. The compliance with the safety standards was higher and that too at relatively lower costs on such farms as compared to other dairy farms. Larger herd size and longer exposure to dairying facilitated the participation.

There were two studies on the market integration by S.M. Vembu and others, and Dinesh Kumar and others. While the former focused on the markets for field crops, the latter was on livestock markets. Both the studies showed significant integration of

the markets. The integration existed even at the breed or livestock type as highlighted by Vembu and others, while Kumar and others pointed towards the existence of even bidirectional integration in some cases. However, these studies could not explain how integration can be used as a tool to promote agribusiness in a clearly defined manner.

In the last, seven studies tried to address some other issues for promoting agribusiness in India. S. Chandrasekhar and Vijay Laxmi Pandey have examined the conduciveness of India's current occupation structure to the future growth of agribusiness. The market oriented agribusiness activities were found to be tilted in favour of higher monthly per capita expenditure (MPCE) class. A. Narayanamoorthy and R. Suresh explored the potential of micro irrigation to boost agribusiness capabilities in Tamil Nadu but the study could not bring out any clear conclusions and recommendations. T. Prasad Rao and others in their paper compared different farming systems which included crops and the livestock and concluded that the returns from allied enterprises were considerably higher. However, the study highlighted relatively lesser adoption of such enterprises by the small farmers. Samir Samantara emphasised the inclusiveness of Kisan Credit Cards by highlighting that three-fourth of beneficiaries belonged to small and marginal land holding categories. H.R. Sharma and S.K. Chauhan pointed towards the changes in the contractual arrangements of the labour and transaction costs in the cultivation of high value crops which could have an impact on the agribusiness. The study reported an increased casualisation of labour and rising dominance of private seed companies in the seed supplies. The study highlighted the problem of availability of seed and made the case for contract farming to address all such issues. It also advocated the role of government in regulation. In addition to the above studies, A.K. Sharma and Brahm Prakash highlighted bright future for sugar industry in India despite some challenges for this industry. Vishal S. Thorat and Smita Sirohi also discussed the potential of reducing household vulnerability through dairy enterprises.

V

ISSUES FOR DISCUSSION

The issues of agribusiness/export opportunities for inclusive growth requires to be dealt in an integrated manner to examine whether agribusiness and export opportunities especially in the wake of emerging global agriculture markets has benefitted small holders in India because more than 80 per cent of the farmers are small. It is being argued that such changes are bypassing the small holders and are intended to benefit only the large holders. In response to change in domestic demand and export patterns, the horticulture and livestock sectors have experienced better growth opportunities as compared with the crop sector. These sectors being labour intensive in nature, it was presumed that such changes have benefitted the small holders. Agricultural markets especially in case of perishables are exploitative in nature where the farmer ends up receiving smaller share of their produce in

consumer's rupee. Further, the small holders are exploited in the market due to very low volume of production and their poor staying capacity. We have been harping on reforms of APMC act for making it more friendly for private investments and moving toward better competition, but still many states have not implemented it fully under the pretext of safeguarding farmers' interests.

The recent shifts in the consumption pattern towards high value food items such as fruits and vegetables and livestock products in raw and processed forms also call for greater opportunities for agribusiness and value chains. Higher levels of farm mechanisation, supported by effective research outcomes have brought a significant reduction in the production risk in food crops. However, such efforts for the horticultural crops have borne limited results. Apart from production risk, marketing risk is also a major challenge for such crops/enterprises. Periods of low production correspond to very high prices and bumper harvests lead to price crashes. While the benefits of high prices do not get transferred to the farmers, they have to bear the losses due to fall in prices. Supply chains also lack efficiency as a large proportion of the fruits and vegetables in these chains get perished due to lack of infrastructure, refrigerated transport and processing facilities. Relatively higher preference for fresh vegetables and fruits rather than the processed forms point towards looking at the issues of marketing in a different manner as compared to the traditional perspective of looking into the supply chains. In the current situation, while the farmers lack incentives to cultivate fruits and vegetables venture, agribusiness and supply/value chains also lack a business viable character. It calls for a strong need to establish such chains that can serve the interests of both the farmers and agribusiness as well as improve the efficiency of the markets in the medium and long-term.

Reneging of contracts is another problem faced equally by the farmers and agriculture business and has emerged as a contentious issue in recent years. Agribusiness has not been very successful in building long term relationship with the farmers. The contracts are not complied many a times due to high volatility in prices of horticulture crops. The farmers flout contracts when market prices are higher than contracted price while companies reject farm produce on quality grounds when market prices are lower than contracted prices. Absence of any legislation sanctity of contracts and grievance redressal mechanism in some states also lead to reneging of contracts. Agribusiness also faces difficulty in accessing prescribed quality produce in sufficient amounts regularly from one area/region. Agriculture is a biological process and is subject to challenges with respect to uniformity in the produce. A small change in weather causes adverse impacts on the desired quality traits. Higher variability in climate in recent years is thus complicating the matters of sourcing uniform raw materials for the agribusiness and value chains.

There are two important things which should be considered to ensure that agribusiness or agriculture supply/value chains in India become a reality on large scale. The agribusiness should address the issues of (i) higher production and marketing risks in the alternative crops and (ii) must also ensure increased farm

incomes, when compared to the already dominant crop systems. Most of the times, agribusiness is considered to have more potential in fruits, vegetables and livestock products. A shift towards these crops/enterprises can help in significant improvement in the farm incomes apart from ensuring nutritional security.

Many policy initiatives are also taken to promote agribusiness and agriculture supply/value chains under which market functions are integrated and farmers' price realisation is better. Such chains were also considered vehicles for introducing better production and post-harvest technologies so that production is maximised and wastages are minimised. But we have not seen much empirical evidence on such issues in the papers submitted under this theme. Most of the papers did not try to integrate agribusiness and exports with respect to their impacts on small and other holders to conclusively report whether these opportunities ushered inclusive growth or not. Therefore, this issue needs to be discussed thoroughly. Yet, there is sufficient literature available on the limitations and strengths of the current agribusiness and supply/value chains in agriculture. However, the major question is, do such agribusiness and supply/value chains suffice and are capable to handle increased production and reach to larger number of producers? Are there some other aspects which need to be given due consideration in order to look at these businesses and value chains?

What Needs to Be Investigated?

The above parameters have to be deeply investigated to develop a realistic framework for agribusiness and supply/value chains that need to emerge in future.

There is need to understand the domestic and export potential for different crops and products in raw and processed forms. The demand has to be projected for the next 5-10 years keeping in mind the changing consumption pattern, acceptability of different formats of produce, experience of the intermediaries and other related factors in the domestic and international markets.

Exports provide an important opportunity to expand the size of the market. There is need to identify crops and products in which India has comparative advantage and efforts must be directed to increase exports of such commodities by creating the required infrastructure, institutions and policy.

Processing has been the most neglected component in Indian agriculture. It can help to improve the shelf life of the product and also add value to the produce. There is need to look into the processing and other related possibilities which are feasible and look at it as an opportunity to improve farm income especially of small and marginal farmers.

Food safety is a major concern these days and there is increased willingness to pay premium for the food safety features, however, again, what is the percentage of the consumers to which such produce is accessible needs to be ascertained. Food safety is equally important now for the export as well as domestic markets. The organised retail chains which are fast emerging in India may find it hard to establish

without giving due emphasis on food safety parameters of such products they sell. It will help in consolidating the demand and paving the way for better integration of farmers in the supply/value chains.

Finally, an effective agribusiness and supply/value chain is that which establishes a long-term relationship between its different components while enhancing efficiency of each such component. An effective integration of different stakeholders in the chain can improve the market efficiency and profitability as well. Even if it takes time to increase the producer's share in consumer's rupee, there is possibility to increase the absolute returns to different stakeholders by enhancing profitability of the supply/value chain.

Important Research Questions

Followings are the important research questions:

1. What is the scope to expand the domestic market for various types of agricultural produce?
2. What is the scope to export and how much? What commodities? What is the competitiveness? Are there some commodities where we currently lack competitiveness but gain that in future? How to proceed?
3. What are the major issues of enhancing shelf-life of perishables for domestic and export markets? How such issues can be addressed effectively?
4. What is extent of research efforts to develop cultivars as per the requirements of the market and agribusiness and to develop package of practices in line of such requirements? What is the approach of extension workers to disseminate these cultivars and practices to the farmers?
5. What is the approach of research and extension for perishables in a complex interface of crop-water-season-climate change?
6. What are the processing opportunities? What scale is required for such processing? What are the marketing issues of processed products? What about exports? Which markets can be accessed?
7. What are the alternative approaches to avoid reneging of the contracts?
8. What are the food safety issues at the international level? How can we progress on that? How to integrate those issues in the agribusiness?
9. How to integrate all the above components into viable supply/value chains which are attractive to all the stakeholders?
10. What is the role of state, private sector, farmers and other stakeholders to strengthen and encourage agribusiness and supply/value chains?
11. What are the major viability issues of these agribusinesses and supply/value chains and what is the way forward?
12. What are the alternative approaches to ensure inclusiveness in agribusiness and agriculture supply/value chains?