ABSTRACT

In India the development in agriculture in comparison to other sectors, is not satisfactory. The poor population is not evenly benefitted by the Public Distribution System as the food stocks are not utilized in an earmarked way, mainly due to the mismanagement and improper policy and insufficient legal support.

A number of marketing ventures, experimented recently in India, have the potential to boost the market opportunities, productivity, and income to farmers, including small land holders. Among these innovations, one of the options is to develop backward linkages to growers in the Supply Chain Management. The challenges and the opportunities lie in linking the two ends and ensuring viable business opportunities for both the farmers and the agri-businesses, which will further strengthen the food sustainability of India in particular and global community in general. In return this will help to maintain a healthy environment also. Successfully implemented Contract Farming is considered as a crucial means for industrializing agriculture. It can be a viable venture for the producers (farmers) as well as for the manufacturers (industrialists). It is regarded as a strategy for agricultural transformation in developing countries because it has the potential to solve agricultural marketing problems also.

In addition to the extensive literature review on the subject matter of Food SCM and backward integration and its implication on the policies and legal frameworks, a multi-functional approach involving both legal and managerial case studies has been used to gain insight into SCM strategies. This triangulation approach - literature review, survey at secondary level, and case studies provided an opportunity to develop a broad-based understanding of the variables and their relationships associated with Food SCM. It also helps in better implementation of Food SCM with special reference to backward integration and evolving strategies and exploring innovative, leading-edge SCM practices.

The study specifically discovers the potential of Food SCM for backward linkages with special reference to Contract Farming and the policy framework under which the involved parties are operating. The legal implications for the concerned states and non state stakeholders come under scrutiny. Further it is intended to develop understanding of area as it is now and its growing importance due to the diversification of Indian economy. In the light of above aspects the study is expected to go a long way to develop further research roadmap and influence the policies and decision making at strategic and operational level.
Some of the important objectives desired to be achieved by the study are listed below.

a. To find the role of policy interventions like timely legal reforms and also simultaneous review and evaluation of the impact of the policies and taking immediate steps to rectify the negative impacts if caused by any of the policies.

b. To study the existing food SCM for different food items and its variants and trace the linkages in the chain in different parts of India.

c. To investigate the scope of market oriented diversification in agriculture and agribusiness in India to accelerate the economic development.

d. To assess the policies, institutional and infrastructural support, and the regulatory mechanism to facilitate food SCM and suggest reforms.

e. To find the means and ways to improve the chain efficiency and promote the mutually beneficial relationships and trust on each other in the system.

f. To recommend the integrated legal framework for food SCM in the country.

g. To promote the value chains and green chains in food supply in the national interest.

The high growth rate of the top players in India’s organized food and grocery segment suggests that this sector will occupy a growing share of both the food and grocery market and the overall retail market in India. Considerable new capacity is being added in the organized food processing sector.

Post harvest loses in India generally range from 5-10% for the non-perishable commodities and about 30% for the perishable commodities. Following are some of the prominent problems associated with the FSCM which result in food wastages.

i. Lack of appropriate and advanced techniques, capital and knowledge deployment and lack of information about the flow of products to markets.

ii. Lack of transparency, tracking and traceability in the supply chain.

iii. Lesser control of product safety and quality across the supply chain.

iv. Investment, benefits and risks not shared by all the partners in the food supply chain.

v. Poor shelf life of products and lack of farmer’s awareness and knowledge.

vi. Lack of storage and other post harvest facilities, absence of innovative technology, including cool chain, poor and uneconomic handling, transportation, storage etc. causing post harvest losses in food products.
The expansion of organized food processing and food and grocery retailing is inducing greater competition among multiple private sector players, contributing to a virtuous cycle of growth, consolidation, and modernization, capturing economies of scale in line with the rising market demand. This competition among firms has created pressure to compress supply chains, cut costs, and achieve increased competitiveness in the domestic and global market. In this context, contract farming models are among the mechanisms for streamlining procurement and logistics services that are high on the agenda of organized retailers and agro-processors.

The present research adopts a focus on the model-based literature scanning that addresses the current "supply chain practices" and problems encountered by the entrepreneur, policy makers as well as farming communities. An alternate term in the research literature is "supply network design" used by some authors to signify that supply structures are often more complex than that suggested by a chain. The present work has used these and other related keywords, and a limited review to articles that describe Agro Supply Chain Design Models. Food Supply Chain Design Models and practices are in a special class and distinct from general Supply Chain Design Models, due to the differences in cost structure, perishability, short shelf life and complications of intrastate, interstate and international logistics. The above activities involved interface of several legal setups, laws and by-laws, often overlapping and confusing in nature. These complexities further make the condition of food supply chain retarded and pathetic. With the above problems in mind, extensive research scanning was conducted by using library databases covering the major journals in management science, law, agriculture, and operations management.

Present study has found that the backward integration in the food industry has emerged to provide a rationale for the growing trend towards vertical integration in terms of private efficiency gains that integration entails. The past studies generally assume a bilateral setting and thus ignore the possibility of great impact on the farming community; but it may be very significant particularly in cases where the upstream or the downstream market is highly concentrated. The backward integration by a processing firm provides for better protection against input supply constraints and demand uncertainty. Since product differentiation, in general, leads to greater concentration; this suggests that backward integration is likely to lead to further increase in downstream concentration. Earlier studies have looked at the growing trends towards vertical integration, product differentiation and concentration in isolation.
Current study suggests that, under certain conditions, there might be a synergistic link between these variables that needs to be explored further.

The recent growth and diversification of consumer demand and the expansion of organized agricultural processing and marketing ventures in India have the potential to boost the market opportunities, productivity, and income to farmers, including small holders. Among these institutions and innovations are various models of contract farming, including those led by cooperatives, by farmer groups, and by various types of private sector resource intermediation that develop backward linkages to growers. The challenge and the opportunities lie in linking the two ends and ensuring viable business opportunities for both farmers and agri-businesses, which will further strengthen the food sustainability of India in particular and global community in general.

There is fragmentation at the bottom of the Supply Chain in agriculture production; the trend in India is towards fragmentation rather than consolidation of the land holding. Although the farms are small, indications are that their operations are more efficient than larger farmers in terms of land productivity, presumably due to a high share of family labour on small farms.

Government interventions in the form of several legal (land reforms, land consolidations schemes) and welfare measures have not yielded the desired results. The strategies of public agencies as well as the efforts by Non-Governmental Organizations to arrest rate of rising poverty and migration of the rural masses, which include promotion of income generation activities, have also not succeeded in reversing this trend. The situation is growing alarming due to several problems of Indian society such as farmer’s suicide, insurgencies and unrest among the farmers. These are associated directly with the problems of agricultural policies and mismanagement. One of the strong reasons is the lack of well established forward and backward linkages, affecting badly on factors such as extension advice, mechanization services, and supply of seeds, fertilizers and credit to farmers. The system should guarantee a remunerative agriculture and make the markets profitable for the farmers.

The study has found that development of efficient and inclusive food value chains will enhance urban–rural linkage, allowing supply of safe and affordable food to increasing numbers of urban-poor people. Most of the road corridors have weak backward and forward linkages, with very little progress in adding value to agricultural production. Constraints such as the lack of storage, efficient transport services, and marketing systems prevents ethnic minorities and
poor households headed by women from taking advantage of economic opportunities brought about by road projects. In the 1960s, 2 inhabitants in 10 in Asia lived in cities, whereas it is estimated that close to 60% of the population will be living in urban areas by 2025. Supplying the growing cities with adequate and affordable food will be a major challenge, requiring massive investments in food distribution, storage, and marketing facilities.

Diversification of agricultural production and marketing now offers the primary opportunity to strengthen lagging growth in farm output and rural employment. However, achieving diversified growth with equity also requires new measures to increase investment and provide the market institutions needed to develop India’s inefficient food processing and marketing sectors, and to ensure that the transformation to higher-value agriculture is inclusive of India’s large number of marginal and small farmers.

The most striking transformation occurring in Indian agriculture is the shift from a food grain-oriented supply led framework which is dominated by the public sector, to a more diversified and demand driven framework with an expanding role for the private sector. Against this backdrop, the study has found the emerging dynamics and challenges in India’s agricultural sector, including managing improvements in food access for the poor, facilitating a private sector led transformation to more efficient agricultural markets, and effectively linking small farmers to these increasingly diverse markets.

Indian agricultural policy must balance a changing food security landscape with the emerging need to diversify farms and markets towards high value commodities. On the food grain front, where the focus has been on increasing productivity, the current challenges are to reduce the cost and inefficiency of public food grain operations by the FCI, and to ensure an effective food safety net for low-income households. A key policy option is to shift responsibility for procuring, handling, and transporting operational supplies of wheat and rice to the private sector and confine the role of the FCI to holding buffer stocks.

The government should give, on priority, a policy support, legal protection, financial, informational and organizational assistance to the small farmers and traditional retailers as they are capable of greater employment generation and equitable income distribution. For the region-wise and operation-wise integration of backward linkages through the agents of Food Supply Chain, malls and the small retailers both are the desirable components of the system.
Whether the above developments have benefited to farming community is disputed on one or the other ground. Many argue in relation to benefits of contract farming that since the primary producers or the farmers lack the bargaining capacity to negotiate the contract, they often end up on the losing side by entering into contracts that are detrimental to their interests. Contract farming has also been used to promote new high value crops which are more input intensive, risky, high-tech, and market dependent for profitability, to lower costs either by yield improvement or cutting input costs through better extension, and to raise returns by value addition to farmers.

The retail market in India is offering great opportunities to the business leaders. This sector is promising a spectacular growth to both organized and unorganized retailers in urban as well as rural parts of the country. Both will coexist and prosper without causing any threat to the other. The traditional retailers will however have to struggle for revamping their business. They need to redefine their role and professionalize themselves to obtain a strategic edge over the organized retailers. A policy intervention, legal protection, financial and managerial support and a cooperative joint operation for promotion of backward food integration and supply chain development will make them strong and competitive. FDI in retailing should be restricted or tied up with decentralization and protection of traditional retailing. The organized sector should be forced to contribute to infrastructure development and help the small, traditional and rural players in modernization and upgradation. A national commission may be set up to coordinate the efforts of all public and private agencies to this end.

The available evidence implies that there is tremendous scope for private and public agencies to participate in the regulations of foods productions and processing and also to exercise control on the maintenance of food safety rules and quality control. There is also a strong need of cooperation among the different agencies at national and international level to develop synergy so that the inerest of farming community and that of all different stake holders are properly guarded. In addition to international standards (FAO Codex Alimentations, SPS agreement), the national agencies for grades and standards are also to play their role with responsibility.

Workings for the betterment of food quality and quantity, different players are coming across with different interests and often they clash on one or the other ground for the regulation of food production. For example sometimes practice of one public group competes with another
private rule for Good Agricultural Practices (GAP). Public regulation may involve normative codes regarding health and safety, but also includes compliance with labour and environmental standards. The latter are strongly advocated by (inter)nationally operating non-governmental organizations, like Greenpeace, IUCN, Oxfam and others. The corporate social responsibilities of firms are further driving forces for following the rules of government and also to maintain harmony with environment and pollution norms.

The initiatives for pronouncing fair and ethical trade practices intend to make food SCM and it’s trading more transparent and try to mobilize consumers and other group for these issues related to food problems. Another aspect of the legal framework refers to ownership rights and the supply chain governance structure. The studies have analysed that as long as the agro operations of Indian firms remain limited to production activities and having marginal or fractional role in value addition of food products, the India firms will not be able to exercise governance power and will receive a minor share of the food industry market.

Joint ventures and strategic alliances between local and international firms in the form of FDI or franchisee may enable producing firms to acquire business practices and learn best international practices. Other options for reinforcing collective action are in the form of contract farming and allied activities and allowing the entry of organised retails market of international level. The entry of giant players like Wall Mart, Carrefour etc. will set new rules of competition for the Indian farmers and other actors who are involved in the marketing and production process. There is a need to bring reforms in government interventions mechanism to make the agricultural sector grow effectively in the light of changing structure of production, consumption and marketing. The current state of agricultural output requires efforts on all fronts including social and cultural factors. The responsible factor for the current poor state of affairs is educational backwardness on the part of Indian farming communities. The present literacy rate adds to the problems of cropping. An improvement in standards of rural literacy will lead to growth in adoption of technology, use of modern inputs like machine, fertilizers, and yield.

Although the federal laws of India hold that the agricultural activities come under the purview of state government. The provisions still give immense opportunities and prospects for better agricultural development. But mere legal and policy reforms will not bring major changes in the Indian agricultural system. There must be infusion of public and private coordination, a system popularly known as Public Private Partnerships (PPPs). There is widespread recognition
of the potential for PPPs in agricultural development and this may be an important way of
developing the capacity of agricultural innovation systems. Underpinning this potential is
significant and growing investments made by the private sector in agricultural pursuits are
noticed. The trend is encouraging and supported by market friendly polices arising from the
ongoing economic liberalization and the growing role of the private sector in many developing
countries is evident.

The present study has found that creating niche markets for more sustainable locally
produced, conserved foods and some manufactured foods can result in significant social,
environmental and economic benefits for those involved, greater overall gains could
undoubtedly be made by improving the sustainability of mainstream agriculture and
international supply chains. Thus it will be wise on the part of policy makers to have holistic
view of the whole development of agro food supply chain set up. Undue apprehensions should
not be developed for the integration of international food supply chain along with the domestic
ones.

Private actors of the agribusiness sector should refrain from practices that constitute an
undue exercise of buyer power, as identified by the states in which they operate in their
relationships with workers. They should use their influence on suppliers to ensure that wages
and working conditions improve, rather than degrade, as a result of their suppliers joining global
value chains. It can be done by seeking to international framework agreements with global
mions, guided by the widely accepted principles by considering unilateral undertakings to
onitor compliance with ILO standards in the supply chain, while supporting their suppliers in
ieving compliance. They should engage in chain-wide learning to assure that participation in
he chain is profitable for all involved, including small-scale producers. In their relationship with
mallholders the agro-firms should involve smallholders in the elaboration of and compliance
with food safety, labour or environmental standards and facilitate their access to global supply
ains. At a minimum, they should ensure that the imposition of private standards do not
clude smallholders from certified food chains (by assessing the impact of private standards on
he right to food). Further they should negotiate contract farming arrangements that respect the
ight to food for smallholders and the criteria of social justice outlined earlier. The firms must
romote fair trade through increased shelf space and by running information campaigns
ighlighting the unique importance and contribution to fair trade.
The present study has analyzed the role of government legislations in general and judiciary in particular in the process of sustainable development. The role of government legislations/ actions of judiciary in case of non-compliance of the environmental legislation could be an important weapon to achieve the goal of sustainability. Though government legislations and intervention of judiciary is not the only way to move towards sustainable development, but it may be an important component of policy framework for the sustainable development, particularly in the era of globalization. To substantiate the above hypothesis the present study has discussed some of the landmark judgments on environment degradation by the Indian Apex Court during the recent past. Further the study has highlighted that in the face of continuous depletion of natural resources and environmental degradation the Indian judiciary has come forward to check such unsustainable developments.

The enforcement of agricultural contracts is an important pre-condition for efficient exchange and investments in economic activities in general and in agro-food in particular. When a breach of contract happens, one or both the parties might wish to enforce the agreement on its terms.

In developing countries enforcement institutions are often weak or absent. India is not an exception to this rule. Government interventions to address such a shortcoming are needed as a pre-condition for the development of a favourable climate for business investments. Effective enforcement mechanism is important for successful Contract Farming. Mediation, reconciliation, arbitration etc. should be made to exhaust first before resorting to civil court for dispute resolution. A flexible contract may allow renegotiations and thus enable parties to adjust the contract to changes in the environment.

There are pertinent findings which suggest that if contract farming is rooted in appropriate policy, statutory and institutional legal framework, the CF has tremendous potential to help the agricultural community in general and the small and marginal farmers in particular.

There is a need to have a comprehensive statutory protection from the ill effects of contract farming for the farmers. But the practice of contract framing alone can also not be overemphasized and advocated vehemently. The agricultural co-operatives, the Non Governmental Organizations (NGOs) and the civil societies should also be given chance and the legal and regulatory system should enable them to play a prominent role in protecting the interests of farmers in contract farming.
The Agribusiness activities have great bearing on not only different areas of agriculture like food processing, horticulture and seed business but also erode our capacity for sustainable growth for future generations.

Sustainability is regarded as a much broader phenomenon, embracing ethical norms for the survival of living matters, the right of future generations and the institutions responsible for ensuring that such rights are fully taken into account in policies and actions. Moving towards sustainability will, therefore, oblige a concerted process of change.

However, if we accept that sustainability involves a concern for the social as well as environmental changes that take place in relation to human activities then compliance to legislations which confronts the structure and approach of past (unsustainable) practice to build a new structure required for a (sustainable) future could be an approach if we want to move towards sustainability.