

Agriculture- “Growing the Future”

Shristi Sonal*

College of Agriculture Sciences, Teerthanker Mahaveer University, Moradabad

*Corresponding Author E-mail: shristi1997tmu@gmail.com

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ABSTRACT

Nature is inexhaustibly sustainable, if we care for it. It is our universal responsibility to pass a healthy and green earth on to the future generations. ---Sylvia Dolson

Agricultural marketing can be described as the profitable commercial functions involved in transferring agricultural products consisting of farm, livestock and other allied products from producer to consumer. To meet the ever increasing demand of the exponentially growing population, the whole agriculture sector has turned towards the exploitation of the environment in an unsustainable manner rather than shifting to the utilization of sustainable energy. Sustainable energy refers to the development or provision of energy that can be used by anyone to meet the present needs without compromising future generations. Different types of technologies have been made to promote production of sustainable energy. Therefore, people should give a thought on the environmental effects when thinking of development in agricultural marketing. Also, producers expect better returns as they work hard whole day in their fields but are not satisfied. The producer should have access to competitive marketing system. In the mean time, the marketing organizations need to maximize transparency and efficiency in transactions with the producers and also of retail price or consumer price accruing to the farmers.

Key words: Haats, Mandis, Fairs, Rural Primary Markets (RPM)

INTRODUCTION

Evolution of Agricultural Markets in India
Traditional methods of sale prevailing in India: India has a long history of periodic markets, most of which are held in rural areas famous as haats, mandis, fairs etc which are estimated as between 20,000 to 45,000 across the country. In such Rural Primary Markets (RPM) mainly small and marginal farmers participate for selling their farm produce and purchasing inputs as well. The produce is sold by Hatha system, where prices are settled by

the buyer and the commission agent of the seller. Codes are used to communicate and fix the price.

Recent Trends of sale prevailing in India: With the emergence of new inputs and new technologies, agriculture industry has converted from deficit oriented to surplus oriented sector. Now-a-days, contract farming is practiced. Involvement of companies like Birla's, Tata's has also been noticed in the agricultural sector.

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With more than 68,000 branches, commercial banks and regional banks have phenomenal strength in financing and providing loans or credit to the agri start-ups or agri- business ventures. National Spot Exchange Limited (NSEL) is a type of nationalized transparent electronic spot exchange established in 2005 with its headquarter in Mumbai. It is a state of art market place providing customized solutions to several problems faced by agricultural producers, exporters, importers, processors, investors and general commodity stakeholders. Another most valuable change is that as India produces a substantial amount of agricultural and agro-industrial waste, there is growing consensus among industry players and policy makers to look for ways of methodically disposing of this waste and creating value out of it.

Agricultural Waste- A money spinner

Agricultural waste is the unwanted and unsalable products and by-products of various agricultural operations. It includes manure and other wastes from poultry houses, slaughter houses, farms and harvest waste. Till now, both farmers and consumers have failed to understand the constructive use of the agriculture waste. Instead of burning them away and adding to existing air pollution, both farmers aka “farmpreneurs” can unlock agriculture’s potential to generate high-value products and create new post-farm gate industries¹. Agricultural and horticultural industries generate abundant waste biomass, which is currently disposed off at a cost to the producer, or with low returns. But there are compounds we can derive from this waste which are a range of different ‘biomolecules’ having high-value potential applications for their structural or health properties. Some biomolecules have health, mechanical and texturizing properties, which means they could have applications in the food, structural materials and cosmetics industries. Anthocyanin from apples and cherries can be a used for food colouring, chitosan from mushrooms can be used in skincare products, sulforaphane from Brassica vegetables is beneficial for diabetic patients and cellulose

can be used for composite materials. The Ministry of New and Renewable Energy (MNRE) in association with Indian Institute of Science, Bangalore has estimated that 500 million tons of agro-industrial residues and agriculture residues are generated within the country borders annually. Of this 500 million tons, 70% is used as fodder or as fuel for domestic and industrial sectors, while rest (120-150 million tons) is wasted in different stages of the agriculture value chain. The surplus agro-waste can be put to a better use such as power generation. The National Policy on Bio-fuels, approved by the Union Cabinet recently, will provide a huge impetus to the small but growing bio-energy sector in India. The policy calls for usage and production of ethanol from damaged food grains and farm products for optimal utilization of agricultural waste to produce bio-power. Since India produces a substantial amount of municipal waste and agricultural residue, there is a growing consensus among industry players and policy makers to look for ways of efficiently disposing of this waste and creating value out of it. However, such projects/plans need infrastructure for large-scale and environmentally safe processing of waste. Often, waste management companies willing to undertake projects/infrastructure development are faced with unrealistic expectations and financial uncertainties. With the National Biofuel Policy, the government has essentially given impetus for more investment from the private players in the sector.

To make the best out of waste in the agricultural sector, the best found solution is the use of 3R’s *viz.* Reuse, Recycle and Reduce. To minimize the waste and enhance the earnings, especially under Government’s mission to double farmers’ income by 2022, the conversion from waste to wealth can be done in the form of alcohol production, bio-fuel, leather industries, biogas, bio fertilizers and many more.. Experts believe that agricultural sector requires a paradigm shift where farmers need to shift their attention from primary to secondary agriculture,

wherein they not only enhance the value of the produce but also utilize all by-products.

CREATIVITY IS MAKING MARVELOUS OUT OF THE DISCARDED.

EVERY WASTE IS A FOOD FOR SOMEONE

ENERGY POLICY OF INDIA:-

The energy policy of India is defined by the country's expanding energy deficit and increased focus on developing alternative sources of energy. In 2014, India secured 81st position with 66% of overall energy. In 2016, India became the third biggest primary energy consumption with 5.5% global share followed by China and USA. In 2015-16, per capita energy consumption was 22.042 Giga Joules excluding traditional biomass use. Because of rapid economic expansion, India is having one of the world's fastest growing energy markets and is expected to be the second largest contributor to the global energy demand by 2035, considering for 18% of the rise in energy consumption. In India, the retail price of diesel and petrol is increasing day by day. The best substitution for this is electricity driven vehicles with dual benefits. Firstly, it is affordable as compare to petrol and diesel and secondly, electricity is generated from solar power which is appreciable in future. In 2012-13, India consumed 69.179 million tons of diesel and 15.744 tons of petrol which were produced from imported crude oil at high foreign exchange rate whereas, electricity driven vehicle is more feasible and will become more popular in future.

Energy Trading With Many Countries:-

In India, per capita electricity consumption is low as compared to other countries. After the 12th Five Year Plan (2012-2017) India has been exporting surplus electricity to Pakistan, Bangladesh in return for the natural gas supplies. India can enter into long term power purchase agreements with China for developing the hydro power potential in Brahmaputra river basin of Tibet region. Thus, to secure its energy requirements India is having ample of trading synergy with its neighboring countries.

CASE STUDY:-

Great Eastern Energy Corporation v. Union Of India on 25 July, 2017

This case was decided by the Honorable High Court of Delhi on 25th July 2017. The facts of this case goes like; in 1992, the respondent Union Of India expressed his interest in allowing private participation development and exploitation of Coal Bed Methane. Modi McKenzie Methane Limited, the predecessor of the appellants (referred to as "Great Eastern Energy Corporation Ltd"), who was interested in conducting that business. The respondent granted the approval on 28.12.1992; resultantly, the parties entered into a Memorandum of Understanding. The agreement was having a condition which was the bone of contention in this proceeding i.e. Clause 15.1(b) that required GEEC to deposit a one-time lump sum Signature Bonus. On 27/1/1994, GEEC paid Rs.1 cr. to CIL. GEEC moved to the Tribunal Act under section 33 which was rejected on 12/5/2014. This was challenged under section 34 of the Act. In this case the judges did not find any ground for impleadment of SAIL as a party to the writ petition. Judges allowed SAIL to intervene in the writ petition.

Another case analysis are :-

Amad Bodubhai Seta vs. Chairman, Gujarat Energy Transmission Corporation Limited and others Gujarat High Court, 14 July 2017.

Byrnihat Industries Association Meghalaya vs. Meghalaya State Electricity Regulatory Commission Meghalaya and another Appellate Tribunal for Electricity, 19 July 2017

Proposed Guidelines for Power Consumers in India

- * Explore all the alternatives to set-up an independent power plant making proper use of renewable resources like solar, wind biomass and waste-to-power/ secondary agriculture.
- * Use of government / utility power supply, just in case of emergency.
- * Save energy by using low wattage / high luminous lamps (CFL / LED).

* Regular maintenance and servicing of electrical equipment.

* Minimize the use of inverters and large storage batteries.

* At lower load conditions use of intelligent power factor correctors to minimize energy losses in capacitor.

* Recurring energy audits

Policies for concentrating on the enhancement of renewable for the future- The Ministry of New and Renewable Energy (MNRE) have initiated few schemes and incentives. They are as follows:-

* Vigorous promotion of renewable sources by both governmental and non-governmental organization.

* To set up a national-level body to increase awareness of renewable energy at grass-root level

* Financial help and sponsorship for innovative work in renewable energy technologies.

* Ambitious goals for power generation non-conventional sources.

* To encourage and inspire people by installing renewable energy technologies at every place.

* Control on the use of large battery energy storage systems.

* Attractive incentives and subsidies for installation and successful operation of renewable energy equipment.

* Use of biofuels in motor vehicles.

* Soft credit for setting up renewable energy enterprises.

* In rural areas additional incentives will be given to the consumer and manufacturer of renewable energy equipment.

Problems and Challenges:

- Poor Infrastructure
- Slow working staff members
- Private market intermediation
- Improper implementation of agricultural policies and schemes
- Lack of professionalism in management
- Lack of technical training
- Unavailability of computer and trained staffs
- Involvement of middlemen

- Less media coverage
- Lack of awareness
- Lack of agricultural education
- Natural calamities like drought and uneven rainfall
- Exponential growth of human population
- Inadequacies in planning and management

Recommendations:

- Proper implementation of agricultural policies and schemes
- Training for going digital
- Education and literacy
- Agricultural extension
- Pilot demonstration of projects
- To fix meetings of the farmers with the supervisors, scientists etc. at regular intervals
- Usage of 3R's
- Computers should be made available
- New schemes and plans should be made to encourage secondary agriculture.

CONCLUSION

In this era, there is an eminent need for the agri-marketing initiatives to be large and organized. It has been noticed that better and easy market access and efficient information flow can bring much desired market orientation of the production system. The proper development of infrastructure system will not only decrease the cost of distribution but also aid the various section of the population like farmers, traders, consumers, scientists etc. In order to attain sustainable energy goals, there should be a change in the manner energy is supplied. To ensure economic benefits are enjoyed there are numerous opportunities for further advancement on the supply side of the energy equation as well as the demand side. It would be better off investing in an agricultural technology university which will focus on the technologies to enhance the value of produce and set up a secondary agriculture industry in India. This will result in a boost to the rural economy and would help farmers earn more with the same crop and other people in the village can also be gainfully employed in the industries based on these products.

REFERENCES

1. Google.co.in., *energy law project scribd.com - Google Search.* [online] Available at: https://www.google.co.in/search?q=energy+law+project+scribd.com&rlz=1C1CHWA_enIN606IN606&oq=energy+law+&aqs=chrome.69i59l3j69i60j69i57j0.5430j0j9&sourceid=chrome&ie=UTF-8 [Accessed 15 Aug. 2017] (2017).
2. Google.co.in., *energy law project scribd.com - Google Search.* [online] Available at: https://www.google.co.in/search?q=energy+law+project+scribd.com&rlz=1C1CHWA_enIN606IN606&oq=energy+law+&aqs=chrome.69i59l3j69i60j69i57j0.5430j0j9&sourceid=chrome&ie=UTF-8 [Accessed 15 Aug. 2017] (2017).
3. Anon, [online] Available at: <http://http://www.manupatrafast.com/Default/DataBaseDirectory.aspx> [Accessed 7 Sep. 2017] (2017).
4. Anon., [online] Available at: <http://http://www.alternative-energy-news.info/future-renewable-energy-india/> [Accessed 7 Sep. 2017] (2017).
5. Indiankanoon.org., *Great Eastern Energy Corporation ... vs Union Of India & Anr on 27 May, 2015.* [online] Available at: <https://indiankanoon.org/doc/14207109/> [Accessed 30 Aug. 2017] (2017).
6. Anon., [online] Available at: http://en.wikipedia.org/wiki/Mobile_robot [Accessed 5 Sep. 2017] (2017).
7. Alternative Energy Tutorials., *Renewable Energy Sources - A Brief Summary.* [online] Available at: <http://www.alternative-energy-tutorials.com/energy-articles/renewable-energy-sources-a-brief-summary.html> [Accessed 5 Sep. 2017] (2017).
8. https://www.researchgate.net/publication/289615034_Waste_to_wealth_-_Agriculture_solid_waste_management_study
9. <http://www.alternative-energy-tutorials.com/>
10. <http://www.hillagric.ac.in/edu/coa/AgriEcoExtEduRSocio/lectures/AgEcon244.PDF>
11. https://en.wikipedia.org/wiki/Agricultural_marketing
12. <http://agricoop.nic.in/programmesandschemes/agricultural-marketing>