

Effective Exports Management in Lieu with National Institute of Plant Health Management – India

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Abstract

Original Research Article

National Institute of Plant Health Management (NIPHM) is a leading nationwide level institute under the executive control of the Department of Agriculture and Cooperation. Formed by the Indian government, its objective is to promote environmentally sustainable practices related to management of plant health in diverse and changing agro-climatic conditions. This study reviewed the policies of this institute and understand its role in promoting export of Indian agricultural goods. Primary data was collected from five senior managers of the institute and it was found that the institute is making efforts to improve the quality of Indian agricultural produce in order to augment the exports along with providing requisite training programs and can be improved further if skilled staff and resources are provided to it.

Keywords: NIPHM, agriculture, exports, Indian agriculture, Department of Agriculture and Cooperation.

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INTRODUCTION

The management of companies in the current times requires a synergy effect which creates a new direction for transformation in their management. These synergies are characterized by shared contact which occurs in different forms of collaboration, affiliation as well as cut throat struggle. It has been seen that the external environment of organizations is significantly impacted by the internal environment and creates unique circumstances wherein the companies are required to collaborate, create a system and combine the skills of managers and employees [1]. These capabilities symbolize new worth which is exclusive for execution and improved understanding of strategic management in the current global market conditions.

It has been observed that lack of quality in educational institutions impedes on their success and necessitates continuous quality improvement (CQI), Strategic Quality Management (SQM) and Total Quality Management (TQM) [2]. The main challenges faced in managing the quality of educational institutions include low level of vigilance of teachers to educate classes, low level of technology in order to support the teaching process, high student absenteeism [3]. NIPHM takes care to remove impediments faced by the exporters in complying with the quality requirement of the buyers owing to the ignorance to follow good hygiene practices starting from harvest to the final

export of the goods. There are various aspects that need to be considered in export of agricultural goods including pest management, pesticide residue limits, plant health engineering and phytosanitary treatment amongst others. These techniques help the farmers in improving the quality of their produce and turning to organic farming as the host countries have stringent rules regarding the quality of the agricultural produce being imported and providing inferior quality goods shall lead to loss of export revenue [4]. The aim of this study is to review the policies and procedures of NIPHM and its role in increasing efficiency of exports management related to agricultural goods.

LITERATURE REVIEW

Importance and role of national policies in maintaining quality of agricultural goods

The countries help in maintaining quality of agricultural goods by liberalizing cross border trade, which includes trade in agricultural and livestock inputs and produce. Some of the causes which contribute to the decline in quality of agricultural goods include availability of low quality of agricultural inputs; poor proliferation material, fake seeds and fertilizers, inferior vaccines, existence of adulterated or smuggled agricultural inputs [5]. Dishonest trading practices also have a negative impact on the agricultural productivity as well as quality as it leads to sale of adulterated products to farmers. These practices take place owing to

insufficient inspectorate capability as well as weak laws which are not aligned with new advancements in technology, failing in effective enforcement of the laws and endless litigation. It has been seen that most of the laws related to agricultural inputs are not disciplinary enough to discourage potential offenders. Additionally, quality demands have also been increasingly rising in the world market which has led to development of various codes of practice in order to meet increasing concerns of the consumers regarding food safety and their methods of production and their effect on the surroundings and consumer [6].

Impact of quality of agricultural goods produce on exports and the role of policymakers in it

It has been observed globally that upgrading of quality is particularly fast in the starting phases of development, with completion of quality convergence done when a country reaches the status of upper middle-income [7]. Significant heterogeneity has been observed in quality growth rates across different countries owing to their different policies. Previous studies have found that a quicker improvement in quality is directly linked to a more rapid growth in output in domestic as well as foreign markets [5]. The role of policy makers in the export of agricultural goods has increased with the increase in the role of countries to look beyond their domestic economies and seeking to tap into global supply chains and capturing newly emerging markets. With time, the policy makers realized the significance of upgrading quality of their agricultural goods and thus formed country's national policies accordingly [8].

Scope of NIPHM

National Institute of Plant Health Management (NIPHM) is a leading nationwide level institute which aims to enhance plant protection and plant quarantine in order to enhance its delivery and reach under the National Mission on Agricultural Extension and Technology (NMAET). It serves as a systematic link between state, regional, domestic as well as global institutions of outstanding excellence in the field of plant protection technology. This section reviews the various policies of NIPHM related to its quarantine policies and procedures, organic farming management and phytosanitary measures. It is important to understand these policies in order to analyze their impact on Indian exports and the new technologies which are being employed in order to enhance the same. The quality of agricultural goods is directly proportional to the effectiveness of exports management in a country and therefore, it is important to have a nodal agency like NIPHM in place to efficiently manage the same.

- **Quarantine policies and procedures:** The Article IV of International Plant Protection Convention (IPPC) organized by Food and Agriculture Organization of the United Nations stipulates that each contracting party of IPPC (India being a

member party of the convention) shall make provision for an official National Plant Protection Organization that shall aim to safeguard the agricultural economy of the country and the biodiversity from the ravages of exotic pests [4]. The main responsibilities of public authorities involved include issuance of phytosanitary certificates, pest surveillance, pest risk analysis, inspection, disinfections and post entry quarantine amongst others. It is the responsibility of the plant quarantine officials, PSC issuing authorities as well as PEQ inspection authorities to obtain the requisite knowledge on plant quarantine regulations, procedures and documentation in order to safeguard bio security and to facilitate safe trade [4]. This knowledge is provided by the National Institute of Plant Health Management (NIPHM) by organizing various training programmes including training on 'Plant Quarantine National Regulations and Procedures' which covers the important aspects such as importance of SPS Agreement, International conventions, National Regulations, SOPs on imports and exports."

- **Plant health (Organic farming management):** Excessive use of chemical pesticide and fertilizers had led to a degradation of the soil health along with contamination of the food chain in India [9]. To deal with these issues, NIPHM has been promoting the farmers to opt for crop cultivation without using any chemical inputs which is also known as organic farming. Though, there is increasing acceptance of organic farming in India, but its adoption is very limited due to lack of knowledge and training. Most of the farmers rely on chemical fertilizers and pesticides to enhance yield and pest control restricting the area of organic farming as they are not aware about non chemical options available for soil and plant health management. Hence, NIPHM is helping in building of capacity of farmers and professionals by engaging in promotion of the organic farming and are educating the farmers that by successfully adopting organic farming, they shall be able to produce safe food and obtain a better price in the local as well as international markets and reduce the challenges faced by them during exports [10]."
- **Plant biosecurity (Phytosanitary treatments):** "Phytosanitary measures are the measures applied to plants and plant materials to promote trade of agricultural materials and at the same time preventing spread of exotic, harmful plant pests into newer areas [11]. It has been seen that increasing trade in stored grains and stored products has caused disturbing biosecurity concerns. The international grain movement is increasingly becoming a contentious issue both for biosecurity protection and market access negotiations. NIPHM helps in the detection of such pests as precise identification is necessary to establish the most fitting Phytosanitary treatment

along with organizing various training programs and seminars for DPPQS and other officers to train them [9].”

METHODOLOGY

For the purpose of this study, primary data shall be collected by using interview method in order to obtain first hand information from the respondents. The sample which was selected for the data collection method included five representatives from the senior management of NIPHM in Hyderabad using judgment sampling method. The sample size of five respondents was selected on the basis of theoretical considerations of the study along with the availability of resources. The respondents were selected from the senior management team as they possessed the maximum knowledge regarding the policies of the institute. A meeting was fixed with them over telephone where a manager was informed about the reason for the interview. On receiving their acceptance, a date for meeting was finalized in their office premises where they were interviewed and transcripts were recorded on paper as well as using digital means. The data was collected using structured and open-ended questionnaire containing questions regarding the role of the policies of NIPHM on effective exports management. It was ensured that the information be in the form in which it was received without tampering and the literature obtained from the secondary sources were given due credit by using due bibliographic referencing. The collected data has been analyzed using thematic analysis using little graphical representation of the data.

DISCUSSION

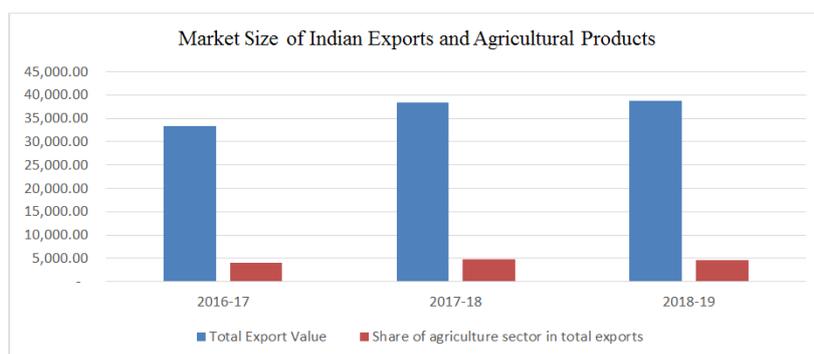
The respondents were asked about their perspective regarding the importance of exports of agricultural goods. Respondent A was of the opinion that “economic development of a country relies on improvements in the quality of goods produced.” Whereas respondent C was of the opinion that “Higher-quality varieties of existing products help boost existing comparative advantages to improve productivity and export revenues.” Almost all the respondents were well aware regarding the significance of generating exports revenue through agricultural goods. The increased trade in agricultural products is accompanied by the increased risk of entry of inadvertently transporting quarantine

pests to countries or regions which can disrupt trade of fresh agricultural products between the different countries. This shows that the respondents were aware regarding the importance of exports of agricultural goods for the development of their country’s economy and improve output.

They were also asked regarding the role of NIPHM in improving the quality of agricultural goods which led to a simultaneous growth in exports. Respondent B asserted that “pests pose a major challenge for export of high value fruits & vegetables into developed countries. NIPHM has developed a very low cost trap & lures that a farmer or farmer association can prepare themselves at very low cost.” It was found that this concept has been very well received by both Agricultural Extension officials as well as progressive farmers in the various workshops conducted by the institute. According to respondent C, “The institute seeks to facilitate exports of Indian agricultural commodities to global markets by promoting good agricultural practices, particularly with respect to plant protection strategies and techniques” while respondent D believed that NIPHM aimed “to strengthen the infrastructure at Quarantine stations for testing/certification of pesticide residues in export and import consignments”.

The respondents were also asked about the different efforts made by the Institute to improve the quality of exported agricultural goods. Respondent C said that “Phytosanitary Treatments serve as one stop solution at the end point of export” whereas respondent D said that “NIPHM propagates phytosanitary treatments which are helpful in safeguarding biosecurity and also in gaining market access.” It also provides training covering various aspects of biosecurity, plant quarantine and phytosanitary requirements for the export and import, phytosanitary treatments and market access issues amongst others to the people concerned. Respondent A said that “It also provided trainees with hands-on exposure of stored grain pests, fruit flies and field pests”. Besides these practices, efforts were also made to give systematic and technological information on the Indian agricultural produce, which was mandatory for finalization of PRAs by the importing countries.

	Value: USD Million		
	2016-17	2017-18	2018-19
Total Export Value	33,283.41	38,425.52	38,739.10
Share of agriculture sector in total exports	4,017.31	4,864.67	4,555.72
Percentage	12.07%	12.66%	11.76%



Source: Press Information Bureau, Government of India, Ministry of Commerce & Industry

When asked about the current status of the export sector of agricultural goods, respondent E informed that “Twenty two National standards have so far been developed in line with the International Standards for Phytosanitary Measures to strengthen the implementation of phytosanitary measures in the country; to accredit treatment facilities and to identify pest-free areas in the country by survey and surveillance methods to enhance the market access of export of pest-free Indian agricultural commodities.” It was found that online system has also been developed for all the plant quarantine activities including phytosanitary certification, issuing of import permit as well as release orders for imported consignments which shall facilitate exports from India. Thus, a variety of detailed information was obtained by the respondents regarding the policies and procedure of NIPHM in improving the quality of agricultural goods. It has been observed that NIPHM is introducing new technology and methods in order to improve plant health and also conduct training sessions to share the knowledge.

CONCLUSION

Thus, it has been found that agriculture plays a significant role in the development of Indian economy as more than half of the Indian population is engaged in agriculture and allied activities. Due to the increasing importance of the sector, the Indian government has taken various steps in order to develop the same along with facilitating its exports. National Institute of Plant Health Management (NIPHM) was formed as a part of such initiatives by the Government with the main objectives of promoting plant protection technology, plant quarantine and bio-security with special emphasis on crop oriented Integrated Pest Management approaches. It also organizes training session in analysis of formulation of pesticide and residues for monitoring its levels in the produce. It is regarded as a nodal agency for transfer of knowledge on technology related to plant protection along with gaining insight into food security measures and policies and the operational problems. NIPHM also conducts programme oriented

research in the area of protection of plant, integrated pest management, management of pesticide, quarantine of plant and pesticide delivery systems and residues.

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