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DISSEMINATION OF AGRICULTURE KNOWLEDGE IN TAMILNADU IN INDIA

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ABSTRACT

Agricultural Knowledge dates back to the period of human civilization. The Knowledge on Agriculture was driven by survival instincts to search for food that was experiential serendipity. The modern agricultural knowledge has embraced the advent of scientific temper and got systematized in a rapid pace in the past four decades. The dissemination of agricultural knowledge has also been systematized technically and got institutionalized to a great extent. This paper analyzes the Dissemination of Agricultural Knowledge in the state of Tamilnadu in India and presents a view on Knowledge Initiation by various Institutions that are involved in Dissemination of Agricultural Knowledge.

KEYWORDS: Agricultural Knowledge, Knowledge Initiation, Knowledge Dissemination

INTRODUCTION

World agriculture has shown an outstanding capacity to adjust to changes observed in modern societies. The traditional debate on the capacity of agriculture to respond to price incentives was dominant in the post war period. Agricultural economists focused the capacity of response of production and responses of technology to price incentives. This debate has moved away to focus other relevant questions as the rural-urban equilibrium, the new governance mechanisms of agro industrial linkages, sustainability of agricultural production and impacts on stakeholders not always included in the traditional economic models to approach agriculture and development. World agriculture is changing imposing the challenge to adapt the global mechanisms to deal with growth and development. The high economic growth, rapid urbanization and changing consumption patterns are the visible signals of a much deeper global adjustment rooted in how societies are dealing with its institutions, being this phenomenon largely neglected by economists, including agriculture and development economists. The role of institutions and organizations was not in the lenses of economists, including agriculture economists until recently.

Innovations are new ideas, practices, or products that are successfully introduced into economic or social processes. Innovations can take the form of technologies, organizations, institutions, or policies and involve the extraction of economic, ecological, and social value from knowledge. The process of innovation further involves putting ideas, knowledge, and technology to work in a manner that brings about a significant improvement in performance. It is not just an idea, but a workable idea. In agriculture, innovation can include new knowledge or technologies related to primary production, processing, and commercialization, which can positively affect the productivity, competitiveness, and livelihoods of farmers and others in rural areas.

Scenario of Indian Agriculture

The Indian Agriculture is highly diversified in terms of its climate, soil, crops, horticultural crops, plantation crops, livestock resources, fisheries resources, water resources, etc. the diversity of its agricultural sector is both a bane and

boon to the social, economic, and cultural bases of India's vast population. Moreover, the diversity among resources generates interactions among many different macro and micro factors, and is further complicated with the interdependencies that exist among these. These resources need to be evaluated, monitored, and allocated optimally for balanced and sustainable development of the country. Knowledge Management System in Agriculture Knowledge Management System is a platform facilitating extraction, storage, retrieval, integration, transformation, visualization, analysis, dissemination, and utilization of knowledge. The generation and application of agricultural knowledge is increasingly important, especially for small and marginal farmers, who need relevant information in order to improve, sustain, and diversify their farm enterprises. Agriculture can require substantial knowledge transfer to and among farmers, including information about successful farming practices, new technologies or controls of pest and disease outbreaks, and new markets. In India, information and communication technology (ICT) projects that support such information flows are rapidly growing, with many initiatives in operation today. ICTs can directly support farmers' access to timely and relevant information, as well as empower the creation and sharing of knowledge of the farming community itself. The processes that ICT projects use to source and deliver content are important to examine, because public, private, and nongovernmental organization (NGO) extension services may be able to increase their effectiveness by using these tools.

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Agriculture Knowledge Practices

Agricultural knowledge, science and technology (AKST) that helps to secure productive, remunerative and resilient livelihoods, and affordable nutritious food for all in a socially sustainable manner cannot be achieved through business as usual. Institutions are needed that can drive efforts in the face of unprecedented challenges. Institutions are rules that aim to reduce uncertainty in human interaction. The role of institutions are the rules, norms and procedures that guide how people within societies live, work and interact with each other. Innovative institutional arrangements are essential to the design and adoption of ecologically and socially sustainable agricultural systems.

Table 1: Agriculture Knowledge Dissemination/ Initiation

Sources	Mean	Std. Deviation	Std. Error Mean	t	Sig. (2-Tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Own Research Trials	4.40	.9856	.2545	17.29	.000	3.8542	4.9458
Agriculture University / College	3.40	1.056	.2726	12.48	.000	2.8154	3.9846
Native Knowledge of Local Community	3.53	1.125	.2906	12.16	.000	2.9101	4.1566

Table 1: cond.,							
Multi-media Information System	3.53	1.246	.3217	10.98	.000	2.8434	4.2233
Subject Experts' Ideas	3.80	1.424	.3678	10.33	.000	3.0113	4.5887
Krishi Vigyan Kendras	3.40	1.404	.3625	9.38	.000	2.6224	4.1776
Networking (Internet, Intranet and Extranet)	2.20	1.014	.2619	8.40	.000	1.6384	2.7616
International Agencies' Findings	2.80	1.320	.3409	8.21	.000	2.0689	3.5311
Ancient Literature	2.47	1.187	.3065	8.05	.000	1.8092	3.1241
Progressive Farmers' Experiments	3.13	1.598	.4125	7.60	.000	2.2486	4.0181
Research Journals / Articles	3.00	1.604	.4140	7.25	.000	2.1120	3.8880

Source: Primary Survey

Agriculture knowledge initiation of the sample institutions were measured with the help of five point scale as Always, Rarely, Occasionally, Never and No Idea. The scores were converted into weighted average ranks by assigning proper weightage such as 5 to the scale Always, 4 to Rarely, 3 to Occasionally, 2 to Never and 1 to No Idea. The significant test was calculated with the help of t test and the test reveals that though all the chosen sources are significant, the significance is high in case of Own Research Trials (17.29), Agriculture University / College (12.48), Native Knowledge of Local Community (12.16), Common Measures (10.98), Subject Experts' Ideas (10.33), Krishi Vigyan Kendras (9.38), Internet and Mass Media (8.40), International Agencies' Findings (8.21), Ancient Literature (8.05), Progressive Farmers' Experiments (7.60) and Research Journals / Articles (7.25). With regards to the levels of knowledge initiation, 60 percent of the institution have high level of knowledge Initiation (always and rarely), 26 percent of the institution have medium level of knowledge Initiation (Occasionally) and the remaining 14 percent of the institution have low level of knowledge Initiation (never and no idea). Hence it is concluded that the efforts put forwarded by the research institutions towards knowledge Initiation is good as far as the sample institutions are concerned.

Table 2: Multi Correlation Analysis for Agriculture Knowledge Initiation

Statements		X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}
X_1	r	1	**.991****	**.950***	-.027	-.085	-.782	.447	.643	.531	.223	-.334
	Sig.		.001	.013	.965	.892	.118	.451	.242	.357	.718	.583
X_2	r	**.991****	1	**.954***	-.133	-.156	-.715	.416	.627	.598	.181	-.366
	Sig.	.001		.012	.831	.802	.175	.486	.258	.287	.770	.545
X_3	r	**.950***	**.954***	1	-.070	-.139	-.765	.613	.672	.651	.323	-.607
	Sig.	.013	.012		.911	.824	.132	.271	.214	.234	.596	.277
X_4	r	-.027	-.133	-.070	1	**.925***	-.145	.529	.495	-.080	.753	.045
	Sig.	.965	.831	.911		.024	.816	.360	.396	.899	.141	.942
X_5	r	-.085	-.156	-.139	**.925***	1	.138	.493	.589	.130	.802	.068
	Sig.	.892	.802	.824	.024		.825	.399	.296	.835	.102	.913
X_6	r	-.782	-.715	-.765	-.145	.138	1	-.395	-.318	-.031	-.113	.273
	Sig.	.118	.175	.132	.816	.825		.510	.602	.960	.856	.657
X_7	r	.447	.416	.613	.529	.493	-.395	1	**.844**	.653	**.905***	-.794
	Sig.	.451	.486	.271	.360	.399	.510		.072	.232	.034	.108
X_8	r	**.643**	**.627**	**.672**	.495	.589	-.318	.844	1	.787	.857	-.510
	Sig.	.242	.258	.214	.396	.296	.602	.072		.114	.064	.380
X_9	r	.531	.598	.651	-.080	.130	-.031	.653	**.787**	1	.564	-.700
	Sig.	.357	.287	.234	.899	.835	.960	.232	.114		.322	.188
X_{10}	r	.223	.181	.323	**.753**	.802	-.113	**.905***	**.857**	.564	1	-.531
	Sig.	.718	.770	.596	.141	.102	.856	.034	.064	.322		.357

X_{11}	r	-.334	-.366	-.607	.045	.068	.273	-.794	-.510	-.700	-.531	1
	Sig.	.583	.545	.277	.942	.913	.657	.108	.380	.188	.357	

Source: Derived

The multi correlation analysis shows that the variable (X_1) Own Research Trials have close and positive association with (X_2) Research Journals/Articles (0.99) and (X_3) Subject Experts' Ideas (0.95), (X_2) Research Journals/Articles have close and positive association with (X_3) Subject Experts' Ideas (0.954), (X_3) Subject Experts' Ideas have positive association with (X_1) Own Research Trials (0.95) and (X_2) Research Journals / Articles (0.954), (X_4) Agri University / College have positive association with (X_5) International Agencies' Findings (0.925), (X_7) Native Knowledge of Local Community have positive association with (X_8) Krishi Vigyan Kendras (0. 844), (X_9) Progressive Farmers' Experiments have positive association with (X_8) Krishi Vigyan Kendras (0. .787), (X_{10}) Others have positive association with (X_7) Native Knowledge of Local Community (0.905) and (X_8) Krishi Vigyan Kendras (0.857). As far as the correlation analysis is concerned, the variables ancient literature and Internet and Mass Media have not yet reached the rural mass.

CONCLUSIONS

Apart from informal sources like farmers, friends, and private input dealers, the public-sector agricultural extension has been the traditional formal channel by which farmers have gained access to information related to their farming activities. Communicating information to farmers is one of the key roles that agricultural extension is expected to fulfill. As the agriculture scenario has become more complex, farmers'access to a reliable, timely, and relevant information source has become increasingly important. Farmers require access to more varied, multisource, and context-specific information, related not only to best practices and technologies for crop production and weather but also to information about postharvest aspects, including processing, marketing, storage, and handling. The efforts taken and put forwarded by the stakeholders were good as per the survey result but still farmers do lack in the knowledge of depending on experiments and to develop new knowledge from journals and magazines. If that trend is imparted, there is a possibility of exploiting every opportunity to have a better scope in the field of agriculture through the knowledge dissemination.

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