Sustainable Development through Health Care Scheme - A study of Cooperative Societies (PACS) of Karnataka.

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Abstract

Increasing costs of agricultural inputs by quantum jumps has been making agriculture a losing proposition. The productivity and profitability of crop production has been dwindling in real terms. In view of this, it is necessary to ensure the accessibility and availability of the critical inputs and social support services for not only improving agricultural productivity and minimizing the problem of indebtedness but also for sustainable development. However besides the tangible economic effects of the services rendered by the Primary Agriculture Cooperative Societies (PACS) for their members, certain social and psychological parameters also play crucial role towards the viability, growth and sustainability of PACS. Thus while making business diversification; PACs should explore such initiatives which will give more focus on members' social and economic development through their active participation. In this relation, the Cooperatives in Karnataka have been successfully implementing the Yeshasvini Co-operative Farmers Health Care Scheme (YCFHCS) introduced by the state government for the farmers of Karnataka in the year 2003.

Thus an attempt has been made in this paper to analyze the impact of YCFHCS Scheme undertaken by PACS on the members' participation and sustainability of the existing business of the PACS concerned. Because, the benefits of the scheme or service rendered by the PACS may results in more active participation members and thereby exert positive impact on the existing business of the society. A comparison at two point of time (i.e. 2001-02 and 2014-15) has been made regarding the business of the society before and after launching the Health Care Scheme with the help of secondary data on certain specific parameters from 50 PACS. It is found that the impact on the existing business of the societies is found positive in the post-launching period of the health care scheme by the PACS under study in Karnataka state, which shows a sustainable way of their development through effective business diversification and in providing of social security and health care services which fulfills the "Concern for Community" principle of cooperatives.

Keywords: Sustainable Development, Yeshasvini Co-operative Farmers Health Care Scheme, Primary Agriculture Cooperative Societies (PACS).

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Introduction

A quality health care for individuals and families is a challenge and also critical for public and private sector in India. There is a great bulk of illness in India and capacity limitations such as staff shortages, resources and operationally active facilities[1]. Major reasons are that distance of public health care sector facility, long waiting times, inconvenient hours of operation and reluctance of experience health care providers to visit rural areas. Numerous government subsidies in the 1980s and opening up of the market in 1991 helped private health care providers to enter the market and, develop and add to the healthcare capacity in private sector or in partnership with public and private sector by providing of typically high quality treatment at reasonable cost.

Health financing in India has been traditionally out of pocket expenses and, poor households traditionally lack savings and, cutting back expenditure on their already meager earnings pushes them into poverty and debt trap resulting into the risk of adequate health care for the children, women and the elderly. Devi Prasad Shetty[2], and a group of private physicians initiated the concept of "rural health care scheme" to demonstrate that it is possible to extend most sophisticated health care services to the poor at reasonable cost by the introduction of Yeshasvini Co-operative Farmers Health Care Scheme (YCFHCS) through Cooperatives. The YCFHCS scheme introduced by the State Government to the cooperative farmers of Karnataka in the year 2003 and has been in implementation through 476 network hospitals to provide 823 defined surgical procedures at cost effective quality healthcare facilities for the under privileged member of the cooperative societies and their families. The performance of the scheme is very encouraging and for the last 13 years it has provided healthcare facilities by incurring Rs. 952.38 crores on 908994 operations and 1707280 treatments to the enrolled scheme members. During the year 2015-16, a total of 41.28 lakh members from rural and urban areas joined the scheme.

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[1] Facilities such as only 2 % of doctors availability, 20 % of total hospital beds location, 9 hospital beds for every 10,000 population and health care spending of 1.3 % of GDP for the 68 % of population which lives in rural areas.

[2]Dr. Devi Prasad Shetty is a cardiac surgeon, philanthropist, educator, telemedicine innovator for establishing a state of art general hospital in Karnataka.

Among the 17 sustainable development goals of United Nations, "Health" occupies a prominent place and relates to 'fulfilling the objective of ensuring healthy lives and promote well being for all at all ages', which has been aptly supported by the YCFHCS for the members of cooperatives in Karnataka.

An attempt has been made in this paper to analyze the impact of YCFHCS Scheme undertaken by PACS on the members' participation and sustainability of the existing business of the PACS concerned. As, the benefits of the scheme or service rendered by the PACS may result in more active participation members and thereby increase in the volume of the business of the society. A comparative study was conducted by taking the status of business of the society before and after launching the YCFHCS. Also the sustainability factor associated with the scheme and the primary business undertaken by the society were analyzed to deduce certain effective conclusion.

Cooperatives and Health Care World over

Cooperatives are people centered organizations with values of self-help, self-responsibility, democracy and social responsibility with 'concern for community' as one of the principle. Cooperatives are in almost all spheres of economic activity by providing food stuffs, financial services, provision of services to consumers and operating in many countries of the world. The recognition of the contribution of cooperatives to promote health is included in the 1997 Jakarta Declaration[3] on Leading Health Promotion into the 21st Century. A United Nationals Global survey on cooperative enterprises in the health and social care sectors found that cooperative health services operate in more than 50 developed and developing countries.

The various forms of health cooperatives working in different countries are firstly, user- or client-owned health cooperatives set up by individuals in the same community to

[3]The Declaration calls on the World Health Organization WHO to engage cooperatives in advancing the priorities for action in health promotion and providing high quality health services at reasonable cost.

help them meet their own health care needs, thereby enabling ordinary citizens to empower themselves with respect to health care and include worker's cooperatives, patient or community cooperatives. Secondly, provider-owned health cooperatives formed by doctors in both developed and developing countries with advantages of bulk purchasing, shared administrative and technical services, and thus bringing together within a single network a variety of specialists who strengthen the range of services jointly offered within a community. Thirdly, hybrid multi-stakeholder cooperatives that can provide anything from homecare to full scale hospital care. The International Health Cooperative Alliance estimates that there are more than 100 million households worldwide that are served by health cooperatives.

Health cooperatives are nationally significant in Japan, Brazil, Spain. In the United States cooperatives provide health care services to nearly 1.4 million American families and, across Canada there are more than 100 healthcare cooperatives providing mainly home care to more than a million people spanning in its eight provinces. Health cooperatives exist in Belgium, Chile Colombia, El Salvador, Greece, India, Israel, Malaysia, Mexico, Mongolia, Myanmar, Nepal, Panama, Philippines, Singapore, Sri Lanka, Nepal, Turkey, Sweden and the United Kingdom. A number of Governments[4] have established partnerships with cooperatives for the provision of health care services. Cooperatives that do business under the fair trade label in Africa, such as the Oromia Coffee Farmers Cooperative Union in Ethiopia, Kuapa Kokoo Ltd. In Ghana, and Heiveld Cooperative Society in South Africa, often use fair trade rebates to provide public health and healthcare services in remote areas. HIV/AIDS home-based care services are provided by cooperatives in Kenya, South Africa, Tanzania, Lesotho and Swaziland, as well as parts of Asia.

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[4]In Costa Rica, the Social Security Bureau began in 1988 to contract cooperatives of health providers to take over and expand public health services. In Malaysia, the Government has transferred part of the public health services to a comprehensive cooperative system, comprising a national network of doctors' cooperatives financed by cooperative banks, delivering services to members of the cooperative movement, with health insurance provided by the Malaysian Cooperative Insurance Society.

Indian Health Care

The urban poor and rural India are struggling with communicable diseases such as tuberculosis, typhoid, dysentery etc. and, rural India is also seeing a higher occurrence of non-communicable life-style related diseases which presents a serious challenge for the Indian Healthcare system that needs to be addressed. In this background, the infrastructure, manpower, accessibility of healthcare services to the ordinary citizens assumes significance. The private sector has evolved a multi-pronged approach to increase accessibility and penetration to service larger sections of the population and address to specific health care services. The lifestyle related diseases were tackled with the development of high-end tertiary care facilities through new delivery models such as day-care centre's, single specialty hospitals, end-of-life care centre's, etc. The Public Sector is keen to continue to encourage private investment in the healthcare sector and is now developing Public – Private Partnerships i.e. PPP models to improve availability of healthcare services and provide healthcare financing. Both sectors have also undertaken initiatives to improve functional efficiencies in the form of accreditations, clinical research, outsourcing of non-core areas, increased penetration of healthcare insurance and third party providers. These issues and initiatives have been further addressed to by the development of health care and insurance schemes by different state governments with differing nomenclatures such as aarogyasri, mobile health services, community outreach program, contracting in public hospitals, chiranjeevi project, karuna trust, yashaswini scheme. The Central Government has taken initiative to improve the Public Healthcare system in India by launching the National Rural Health Mission (NRHM) in 2005 which aims to provide quality healthcare for all.

The Indian Government is focused on developing the PPP model to cover the demand-supply gap prevalent in the healthcare sector. Private sector expertise coupled with efficiencies in operation and maintenance would lead to improved healthcare services delivery to the masses. This model can act as a catalyst in the creation of new capacity and improvement of efficiency in the existing infrastructure manpower and accessibility for a better health care services. In this endeavour, the YCFHCS, by the involvement of

the cooperatives has been pioneered and recognized as one of the best health care provider for the ordinary citizens in India.

Indian Cooperatives and Health Care

Health cooperatives in India were in existence on a limited scale in Madras, Bengal and Punjab provinces during 1920 and 1930s. The user-owned, community based cooperatives were established with focus on mother-child care and curative and preventive health care. Most of the health oriented cooperatives got established in Goa, Maharashtra, Karnataka and Kerala states. Self-Employed Women's Association (SEWA) used the cooperatives and self-help approaches in the unorganized sectors and in product-oriented activities. SEWA provided for training schools establishment for health workers and midwives who formed cooperatives with the aim of improving the health of women workers. SEWA had a provision of community based integrated primary healthcare especially focusing on women, health education, immunization, cataract operations, referral services. SEWA experiences provide for a limited role of cooperatives involvement in the health care to the general population. Kerala states experiences in cooperative hospitals dates back to the first cooperative hospital that came into operation in Thrissur District in 1969. Medical cooperatives were set up in large numbers under government patronage (Nayar 2000), the focus of these cooperatives was limited to medical care rather than comprehensive healthcare and based on the experience gained during the initial years, cooperative rural dispensaries[5] which are self-constrained medical units were established in the late seventies in several districts with the idea of containing government expenditure for social sectors. Presently, the health care cooperatives in Kerala include, cooperatives exclusively registered as cooperative hospital by the professionals, professionals and other individuals, floated by cooperative organization to fulfill their objective and, cooperatives under Charitable Societies Act providing health care service to the members of the holding organizations.

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[5]Cooperative rural dispensaries supplement the work of the primary health centre's and government dispensaries at a lesser cost to the public exchequer.

In Kerala state, the existence of 174 societies with 1.30 lakh membership under the hospitals and dispensaries cooperative societies provide services and health care facilities in different forms and with varying names. Medical store facilities, free treatment facilities to members, pain and palliative centre for the old aged people, ambulance services, conduct of educational courses in first aid and practical nursing-medical laboratory technicians, X-ray technicians exclusively for girls to get settled are the activities under taken by the hospitals and dispensaries cooperative societies. These societies provide for the delivery of medical services through cooperatives thus focus on the viability of such an approach. The YCFHCS happens to be the first of its kind in the country wherein the involvement of the cooperatives is happening on a large scale in Karnataka state. The cooperative society and its enrolled members are the direct beneficiaries under the scheme and in the process, the scheme is addressing to a greater extent the issues and challenges of the infrastructure, manufacture, accessibility of health care services to the ordinary citizens in India.

Yeshasvini Cooperative Farmers Health Care Scheme (YCFHCS)

The scheme to be implemented required mobilisation of a million dispersed rural farmers and create an awareness about the scheme and implementation by collecting premium and issuing of identity cards. D P Shetty and his colleagues searched and observed that organisations and institutions that are connected on a large scale with rural people are the cooperative societies in Karnataka state. The cooperative movement in Karnataka state encompasses development of agriculture credit, dairy, marketing, horticulture, sericulture, textile, fisheries, sugar etc. with nearly 31000 societies covering 197 lakh membership. The Karnataka State Cooperative Department oversees the administration, functioning along with financial assistance and technical guidance to all the cooperatives. In the beginning, D. P. Shetty initiated discussions with the Principal Secretary, Department of Cooperation, Karnataka about the idea of Yeshahvini Health Care Scheme and he has agreed with the idea, and also to cooperative in the awareness of the scheme and in enrollment of members. D.P. Shetty and his colleagues met District Registrar, Assistant Registrar, individual cooperators and Secretaries of the cooperative societies of

each district and made aware of the scheme, its advantages and the health care coverage for the rural farmers.

Yeshwsni Cooperative Farmers Health Care Scheme was launched in the year 2003 and is a pioneering social security health care scheme and not an Insurance scheme. The Yeshshvini scheme is administered by an independent trust called the Yeshasvini Trust under the aegis of department of cooperation and Government of Karnataka and implemented by Third Party Administrator (TPA), Family Health Plan Limited (FHPL). The scheme aims in bringing quality health care within the reach of every co-operator in the State and is a self-funded scheme[6] that translates into contributions from members enrolled and component of subsidy from the Government of Karnataka. This scheme is reported to be one of the largest self-funded health insurance schemes in the world. The stakeholders involved in the implementation of the scheme are members, cooperative societies, government, hospitals, trust and third party administrator. Members of all the rural and urban cooperative societies are eligible to enroll and derive benefits from the scheme and they form the real beneficiaries, the cooperative societies that enroll members in the scheme could be the base level institutions in mobilizing members for the scheme. The Government of Karnataka provides the financial sustaining component through subsidy provision and the Network of Hospitals are the health care service providers, the Medi-Assist India which is the Third Party Administrator is responsible in administering of claims and monitoring of the scheme. The Yeshasvini Cooperative Farmers Health Care Trust focuses on policy decisions, implementation and financial management of the scheme.

To avail the benefit of the scheme, the person should be a member of rural cooperative society of the state for a minimum period of three months before commencement of

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[6] National Agriculture Band for Rural Development in its evaluation study (2007) defines a self-funded scheme as: "A self funded health scheme ensures that the insured has the advantage of making comparatively low contribution. A corpus is created and maintained by a group or society with the contributions made either in full or part by the insured and also the contribution from the promoter"

treatment. Members of all cooperative society and the extended family of the members of the cooperative society are eligible to enroll in the scheme. Benefits extend to members of rural/urban cooperative societies, members of Self Help Groups, Sthree Shakthi groups who have financial transactions with cooperative societies, cooperative banks. Each member is provided with unique identification enrollment number of be identified. There is no age limit to avail benefits from the scheme i.e. from new born to life span. By paying Rs. 250/- per each member with a special package of 15 % discount for more than five members enrolled in a family and cooperative societies are permitted to collect Rs. 10/- as administrative charges. The enrolment charges have a coverage for upto Rs. 2 lakh of treatment cost. At present any individual who is a member of cooperative society and subscribed for the scheme is eligible for medical treatment by having access to expensive medical procedures at nominal fee payment across the state of Karnataka.

The medical benefits extended for the enrolled members include 823 defined surgical procedures covered such as cardiac, general, gynecology, neurosurgery, ophthalmology, orthopedic, pediatric, gastroenterology, vascular, genitor urinary, surgical oncology. Under medical emergencies the benefits covered are for dog bite, snake bite, drowning, accidents occurred while operating agricultural implements, bull gore injuries, electric shocks, normal delivery, neo natal care, angioplasty procedures. The package includes the expenditure incurred to cost of medicines and consumables during hospitalization, operation theater charges, anesthesia, surgeons fee, professional charge, consultant fee, nursing, fee, general ward bed charge, free out patient consultation at all participating hospitals. All predefined medical procedures are part of the disease/treatment packages. An enrolled beneficiary with a valid identity card may avail cashless treatment for the procedures in a network of hospitals. Approximately 476 network hospitals are identified through a stringent technical empanelment[7] criteria throughout the state which include private and government hospitals providing

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[7] empanelment is the act of assigning individual patients to pre-designated hospitals with sensitivity to patient and family preference and is the basis for population health management. This supports continuity of care and fosters a controlled healthcare environment.

the services. Network hospitals have adopted web enabled issue of E-Preauthorisation from the TPA for all ailments/surgeries and daily 85 % of the proposals received are approved on the very same day. One of the most cost effective scheme throughout the world, the (ACR) Administration Cost Ratio was 1.5 % only while Administrative Cost Per Insured (ACI) was kept at the amazingly low level of 2.3only. The scheme is arguably the world's largest health care scheme for the rural poor, designed in ways that overcome several obstacles to providing health security for rural and disadvantaged population. From the year 2014-15, Yeshasvini Cooperative Farmers Health Scheme is extend to members of cooperative in urban area and for which a sum of Rs. 1100.00 lakh for the urban cooperatives and Rs. 9901.00 lakhs for rural cooperatives has been provided by the government. The objective of the scheme is to provide quality health care and improve the living standard of rural and urban cooperative members thereby, ensuring overall health and welfare of the cooperative members.

The study has been undertaken with the sample size of 50 primary agriculture cooperative societies (PACS) and a structured questionnaire addressed to the secretaries to provide for the inputs into the sustainability of their business through the YCFHCS to its members and their opinion towards the same.

Result and Discussion

The PACS under study have added the health care related service in their business activities along with the existing business since 2003-04. The purpose of the study is to analyze whether the inclusion of such service business in their business portfolio affect the improvement in the their existing business (Deposit and Agricultural Loaning) and there by the profit through active members participation, which may be one of the ways to address the sustainability issues for the cooperative societies in Karnataka state. According to the findings one can suggest that the diversification of the business activities of the society should be such that the long-run survival and growth of the society can be achieved through innovative and demand driven business activities

assuming the cooperative ethics and principles are not compromised under any circumstances.

The Progress of Cooperative Societies and the Yeshasvini Scheme based on certain specific parameters during the period 2003-04 to 2014-15 in the state of Karnataka has been depicted in Table-1. It is observed that over a decade period the growth in the percentage of members enrolled in the YCFHCS out of total members of cooperative societies has been found increasing and it is 214% in 2014-15 as compared to the base year 2003-04. This shows the active members participation for the business undertaken, which is a good signs of sustainability of the societies.

Table-1
Progress of Cooperatives Societies and Yeshashvini Scheme

Year	No. of Societies	Membership (in lakhs)	Members Enrolled (in Lakhs)	Members Contribution (Rs. Crores)	Govt. Contribution (Rs. Crores)	No. of Free OPD availed	No. of Surgeries availed	% Enrolled	Index of Growth % of members enrollment
2003-04	32208	197	16.01	9.49	4.50	35814	9047	8.12	100
2004-05	32502	201	21.05	12.87	3.57	50174	15236	10.47	129
2005-06	32466	205	14.73	16.94	11.00	52892	19677	7.18	88
2006-07	32898	208	18.54	21.56	19.85	206977	39602	8.91	109
2007-08	33483	209	23.18	27.75	25.00	155572	60668	11.09	136
2008-09	34025	187	30.47	36.10	30.00	191109	75053	16.29	200
2009-10	34863	199	30.69	41.36	30.00	134534	66796	15.42	190
2010-11	35502	215	30.47	41.68	30.00	157480	73963	14.17	174
2011-12	36481	215	30.70	45.08	30.00	116690	77619	14.27	176
2012-13	37468	218	30.36	58.88	35.00	110842	80401	13.92	171
2013-14	38430	215	37.97	52.33	45.00	123205	95759	17.66	217
2014-15	39627	223	38.72	69.40	61.95	172442	134482	17.36	214

Source: www.yeshasvini.org, www.sahakarasindhu

The data collected from 50 numbers of sample PACS at two point of time viz. 2001-02 (pre -launching YCFHCS) and 2014-15 (post-launching YCFHCS) on certain important performance parameters are analyzed as represented in Table-2. On an average a significant growth in membership, deposit, loaning and profit of the societies have been observed in 2014-15 compared to that of 2001-02 as depicted in Table-2. The launching of the said scheme may be attributed to certain extent towards the growth of these parameters as the members are activated towards innovative business perspective of the societies.

Table-2
Important Performance Indicators

Parameter	2001-02			2014-15			% Growth in 2014-15 over 2001-02
	Mean	Standard Deviation (SD)	Coefficient of Variation (CV)	Mean	Standard Deviation (SD)	Coefficient of Variation (CV)	
Membership	1007.380	917.573	0.911	1580.620	1153.155	0.730	56.904
Deposits	29.508	74.915	2.539	171.356	289.636	1.690	480.715
Loans	119.947	169.296	1.411	342.405	340.695	0.995	185.463
Profit	1.567	1.934	1.234	8.584	8.754	1.020	447.925

Source: Data from Field Survey

Table-3 reveals that around 46% of the total members of the society have already been enrolled under the YCFHCS by 2014-15. The societies under study are of average age group of more than 50 years with a range of minimum 37 and maximum 105 years. This shows the survival of the cooperatives despite the changing economic and competitive environment, and their sustainability provided they grow consistently. The opinion collected from the secretaries of the societies under study reveals that the progress and impact of the scheme on the existing business is as opined by 22% followed by 40% and 30% of the total societies as excellent, very good and good respectively. This opinion is providing an encouraging statement towards the sustainable business diversification of the societies.

Table-3
Basic Information of the Cooperative Societies on the YCFHS Scheme

Members enrolled under YHS scheme upto 2014-15		Average Age of the society.			Opinion of Secretaries of society under the scheme in % to total				Total Number of Sample Society
Average	% of total members	Average	Minimum	Maximum	Excellent	Very Good	Good	No Response	
727.7	46.02	53.36	37	105	22	40	30	8	50

Source: Data from Field Survey

The effect of existing business (Deposit and Loan) of the societies on the profit at two period of time i,e, pre-launching (2001-02) and post launching (2014-15) periods have been estimated by two regression equation eq(1) and eq(2) as follows. The significant

difference between the two regression lines so estimated is further tested by Chow Test to know whether significant difference exists between these two lines (i.e. between the two periods under study). It is found from the analysis that the loan component has a positive and significant impact on the profit but the deposit has no significant impact during 2001-02 as shown in Table-4. But in 20014-15 both the deposit and loan have positive and highly significant (at 1% level of significance) effect on profit. Further, it is confirmed by the chow test ($F_{(3,94)}$ = 10.96) that there exist a highly significant (at 1% level of significance) difference between these two time periods under study. It means there is significant improvement in the existing business of the societies in post launching period of the scheme compared to that of pre-launching period.

Pre launching period of the Scheme: $Y= A+b_1X_1+b_2 X_2+u$ -------- (1)

Post launching period of the Scheme: $Y= A+b_1X_1+b_2 X_2+u$ ------- (2)

Chow Test: $F= (S_5 / K) / \{S_4 / (n_1+n_2-2K)\}$ for df (k, n_1+n_2-2K)

Where: Y= Profit, X_1= Deposit, X_2 = Loan, b= Regression Coefficient, A=Constant, F= F test, df= Degree of freedom, S= Residual Sum of Square (RSS), K= No. of variables, n=No. of observations, $S_4 =S_2 + S_3$,$S_5= (S_1- S_4)$, S_2= RSS for eq.(1), S_3= RSS for eq.(2),S_1= RSS for pooled data.

Table-4
Result of Regression Analysis and Chow Test

Dependent Variable= Profit

	Coefficients	*t* Stat	*P*-value	R^2	*RSS*	*n*
2001-02 (Pre-launching period)				0.422	105.91	50
Intercept	0.7018*	2.548	0.0142			
Deposit (X_1)	0.0015	0.277	0.7830			
Loan	0.0068**	2.794	0.0075			
2014-15 (Post-launching period)				0.809	717.62	50
Intercept	1.9434	2.254	0.02890			
Deposit (X_1)	0.0126**	3.079	0.00346			
Loan	0.0131*	3.748	0.00049			
Pooled data (2001-02 & 2014-15)				0.785	1111.46	100
Intercept	0.9799**	2.098	0.03852			
Deposit (X_1)	0.0153*	4.824	5.234E-06			
Loan	0.0111*	4.553	5.234E-06			
Chow Test (F)	Chow $F_{(3,94)} = 10.96$ * as against tabulated value $F_{(3,94)} = 3.94$					

Note: * significant at 1% and ** significant at 5% level of significance

Conclusion

It is inferred from the analysis made above that the existing business of the societies are positively affected in the post-launching period of the scheme i.e. YCFHS. The progress of the scheme undertaken by the societies is also found satisfactory. Thus, it can be concluded that the cooperative societies should undertake such innovative and demand driven business from time to time so as to survive, grow and sustain under the changing business environment and to serve the rural community in many sphere of activities to benchmark their brand in the mind of the people which will be the way for their sustainability.

A multi-pronged approach from key stake holders is necessary to address the issue and challenges of health care for the farmers in general and rural and urban poor in particular. In this context, it can be suggested that besides the public and private sector, the cooperative sector should be involved widely to make healthcare available, accessible and affordable in India .

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