

EVALUATION OF KRISHI YANTRA DHARE (FARM MACHINERY CUSTOM HIRE SERVICE CENTRE) SCHEME IN KARNATAKA



KARNATAKA EVALUATION AUTHORITY DEPARTMENT OF PLANNING, PROGRAMME MONITORING AND STATISTICS GOVERNMENT OF KARNATAKA JUNE 2020

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DEPARTMENT OF PLANNING, PROGRAMME MONITORING AND STATISTICS
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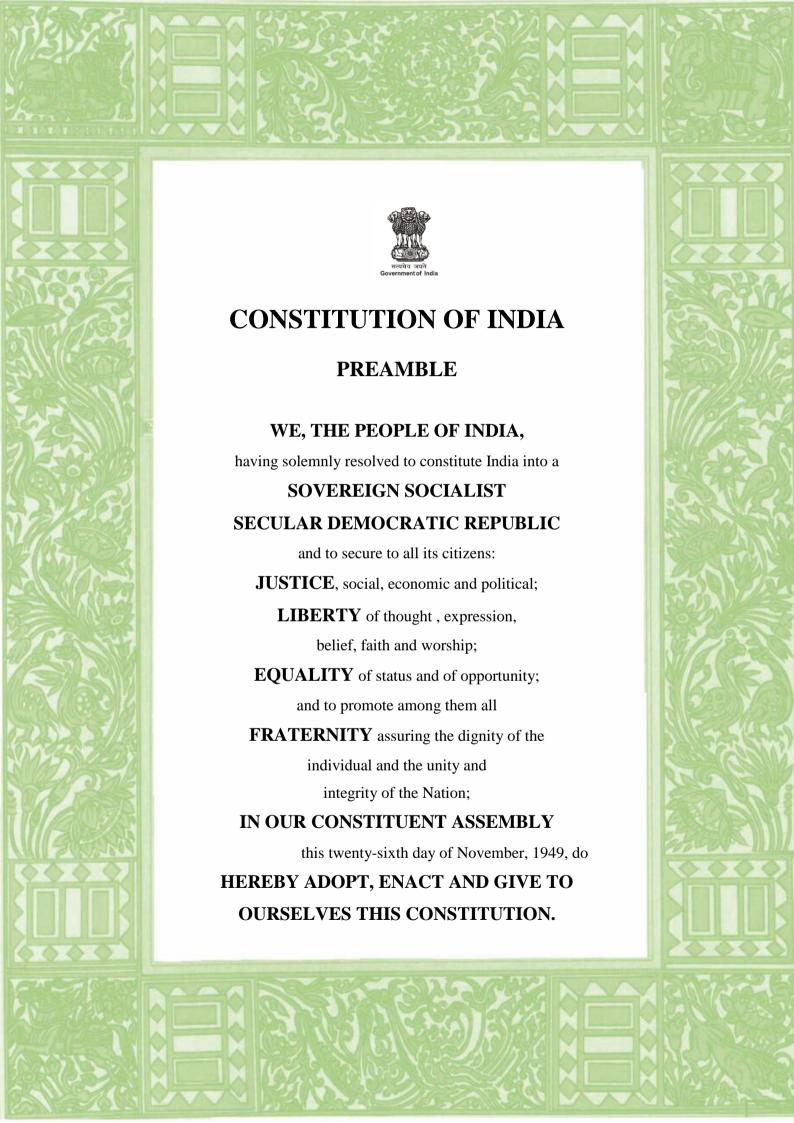
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FOREWORD

Mechanization of farm activities is the need of hour to increase production and productivity in agriculture and to achieve the targets under SDG-2 for zero hunger. To address the constraints of farm mechanisation of marginal and small farmers and enable them to take up the farm activities on time, Karnataka state launched a flagship programme called Krishi Yantra Dhare (Custom Hire and Service Centre CHSC) under RKVY in PPP (public- private partnership) mode from 2014-15. This intervention was expected to bring the change in terms of crop productivity, farm income, and reduction in cost of cultivation in all categories of farmers, especially among small and marginal farmers. The evaluation of the functioning of the scheme and its impact on farmers' income, moisture conservation and timeliness of farm operations was initiated by Department of Agriculture through Karnataka Evaluation Authority (KEA) It was taken up by the empanelled organization -PLUS TRUST.

The study covered 3675 beneficiary farmers and 105 non-beneficiary farmers from 10 agroclimatic zones of Karnataka from 107 centres encompassing 6 service providers including the two success models at Sirawara and Arabhavi. The results of evaluation indicate that many beneficiary farmers (97%) used farm machinery for land preparation, threshing of grains, and sowing respectively. The productivity of cereal crops on the average increased by 12 to 15% and pulses like red gram and Bengal gram increased by 40.2% and 18.8%, respectively. The net return to cost ratio was in the range of 1.53 (ragi) to 6.87 (Bengal gram) for various important crops grown. The SHG linkage and diversification of activities emerged as significant factors in model centres. The major recommendations are- DIC should fix the hire charges based on fuel prices, labour wages, rent and depreciation once in a year. CHSCs should be free to purchase machineries/equipment from the empanelled suppliers as per the rate contract, service providers should be encouraged to establish CHSC in every hobli, CHSCs should aggregate the demand in far off villages to facilitate stocking of machines/ equipment temporarily in such villages, more awareness campaigns, field demonstrations, publicity through village wall posters, mass media, newspapers and partnering with local Self-Help groups (SHG) for better access to CHSC benefits.

I expect that the findings and recommendations of the study will be useful to the Government and Department of Agriculture for taking up the mid-course corrections in the implementation of the programme.

The study received support and guidance of the Additional Chief Secretary Planning. Programme Monitoring and Statistics Department, Government of Karnataka. The report was approved in 46th Technical Committee meeting. The review of the draft report by KEA, members of the Technical Committee and an Independent Assessor, has provided useful insights and suggestions to enhance the quality of the report. I duly acknowledge the assistance rendered by all in successful completion of the study.

Chief Evaluation Officer
Kamanaka Evaluation Authority

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awarding a unique opportunity to evaluate Krishi Yantra Dhare Scheme in Karnataka being

implemented by the Department of Agriculture through different service providers between

2014-15 and 2016-17. We also gratefully acknowledge the guidance given by

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The active co-operation and involvement of Sri. Abraham of SKDRDP, Sri. Srinath of

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understanding the ground level realities of operating CHSCs, besides, being useful in

preparation of evaluation report.

Date: 23.04.2020

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ABBREVIATIONS

ADA	Asst. Director of Agriculture
AO	Agricultural Officer
BF	Beneficiary farmers
C:B	Cost Benefit
CDZ	Central Dry Zone –zone 4
CHSC	Custom Hire Service Centre
CRIDA	Central Research Institute for Dry Land Agriculture
CZ	Coastal Zone-zone 10
DIC	District Implementation Committee
EDZ	Eastern Dry Zone –zone 5
FAO	Food and Agricultural Organisation
FGD	Focus Group Discussions
FIRB	Furrow irrigated raised bed
FPO	Farmers Producers Organizations
GKVK	Gandhi Krishi Vignana Kendra
GP	Grama Panchayath
HP	Horse Power
HZ	Hilly Zone-zone 9
IDI	In-depth Information
ISABP	Indian Society of Agri. Business Professionals
JDA	Joint Director of Agriculture
JDI	John Deer India Pvt. Ltd
KALA	Kalachethana Yuva Samasthe
KEA	Karnataka Evaluation Authority
KW	Kilo Watt
M & M	Mahindra & Mahindra Ltd
MF	Marginal farmers
MP	Madhya Pradesh

NABARD	National Bank for Agriculture and Rural Development
NBF	Non beneficiary farmers
NDZ	Northern Dry Zone-zone 3
NEDZ	North Eastern Dry Zone-zone 2
NETZ	North Eastern Transition Zone-zone 1
NGO	Non-Government organisations
NICRA	National Initiative for Climate Resilient Agriculture
NTZ	Northern Transition Zone-zone 8
OBC	Other Backward Classes
PLUS Trust	Peaceful Living With Unified Solutions Trust
PPP	Public Private Partnership
RSK	Raita samparka kendra
SC	Schedule Caste
SDZ	Southern Dry Zone-zone 6
SF	Small farmers
SKDRD	Sri Kshethra Dharmasthala Rural Development Programme
ST	Schedule Tribe
STZ	Southern Transition Zone-zone 7
ToR	Terms of Reference
TP	Taluk Panchayat
UAS	University of Agricultural Sciences
UK	United Kingdom
VST	VST Tractors and Tillers Pvt. Ltd.

EXECUTIVE SUMMARY

Krishi Yantra Dhare is one of the flag ship programmes of the Department of Agriculture, introduced subsequent to earlier experience of providing 50% subsidy to purchase farm machinery before 2014. However, farm machinery was made available to the farmers on hire basis through custom hire service centres. The same would be funded to purchase the approved machinery through a set of guidelines. Grants available from Rashrtiya Krishi Vikas Yojana (RKVY), a Government of India initiative, was used to establish such custom hire service centres under the scheme of Krishi Yantra Dhare. The scheme was developed and implemented by the Karnataka State Department of Agriculture with specific guidelines aiming for welfare of farmers, specially marginal and small.

The Rashtriya Krishi Vikasa Yojana (RKVY) was intiated in 2007 as an umbrella scheme for ensuring holistic development of Agriculture and allied sectors on the recommendations of National Development Council (NDC). The major focus of the scheme was to rejuvenate agriculture sector so as to achieve 4% annual growth in the sector. RKVY will be a State Plan Scheme with 100% funding from Government of India. The Custom Hire Service Centres in Karnataka were established under RKVY funding.

The Department has started the Custom Hire Service Centres (CHSCs) to provide the required farm machinery to the farmers on hire basis for carrying out timely field operations, resulting in improved productivity and income. The establishment of CHSCs was started in 2014-15 by inviting tenders from interested service providers. As per the Notification, in 2014-15 only two service providers namely, Sri Kshetra Dharmasthhala Rural Development Programme (SKDRDP) with 164 centres and Indian Society of Agriculture Business Professionals (ISAP) with 11 centres were established. Subsequently, in 2015-16 and 2016-17, 4 more service providers, VST tillers, John Deer, Kala and M & M have established 160 centres. A total of 335 CHSCs were functioning during the evaluation period 2014-15 to 2016-17.

The evaluation of Krishi Yantra Dhare was taken up to study functioning of these centres and the impact on productivity and farmers' income including moisture conservation and timeliness of farm operations. The study covered 3675 beneficiary farmers and 105 nonbeneficiary farmers from 10 agro-climatic zones of Karnataka encompassing 6 service providers. Non beneficiary farmers from villages serviced by CHSCs were considered as control farmers for comparison to quantify the benefits gained by the beneficiaries. The

primary data has been collected from the sample farmers and CHSCs using pre-tested questionnaires. The secondary data were obtained during the discussions with service providers, Department officials and other stakeholders during 20 Focus Group Discussions carried out in different districts across 10 agro climatic zones. Data collected was analysed using simple qualitative and quantitative techniques considering evaluation approach, before and after receipt of the benefit and with (beneficiary) and without benefit (control).

The major findings and recommendations are presented below:

Major findings

- The results of evaluation indicated that most beneficiary farmers (97%) used tractors/tillers for land preparation using the equipment like M B plough, cultivator and rotovator. Other important operations popular with the farmers are threshing of grains, sowing respectively, using thresher (or multi-crop thresher) and seed-cumfertilizer drills. Other different equipment stocked by CHSCs were not used intensively.
- Majority of the farmers (91 %) have expressed satisfaction over the services given to them by CHSCs, as they could take up the operations timely, resulting in reduced cost of cultivation and improved net income. Further, most farmers have expressed opinion to continue CHSCs in future with a greater number of equipment such as M B plough, rotovators, tractors and harvesters.
- Results indicated that awareness of the farmers about the functioning of CHSCs varied in the range of 20% (for example, CHSCs like Jayapura in Mysuru taluk, Nayakanahatti, Challakere taluk) to 100% (CHSCs like Hedegonda-Kaginele in Byadagi taluk, Jajur in Arasikere taluk) depending on the keenness of CHSC to create awareness.
- In general, the performance of CHSCs managed by SKDRDP was far superior than those managed by other service providers, because such centres derived the support from SHGs formed by SKDRDP for overall development of agriculture and rural development as well as micro finance to farmers. The popularisation of CHSC activities and even booking of machineries were being done by SHGs spread over entire jurisdictional area through a network of small farmers' groups overseen by supervisor.

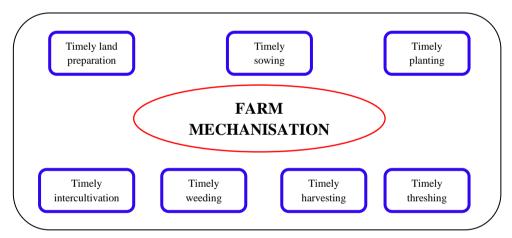
- The productivity of cereal crops like paddy, ragi, jowar, maize, was increased respectively by 5.25 %, 23.3%, 11.2 % and 8.7% as a result of using farm machinery from CHSCs. The productivity of pulses like redgram and Bengal gram was increased by 40.2% and 18.8%, respectively. Similarly, the productivity of oilseeds like sunflower and groundnut was increased by 7.9% and 18.4%, respectively. In case of other crops like, cotton, sugarcane, mulberry and horticultural crops the productivity was respectively improved by 9.6%, 7.9%, 21.5%, and 9.4 %. improvement of productivity of these crops was due to the use of farm machineries from CHSCs.
- On an average, beneficiary farmers were able to reduce their labour cost by Rs. 1750 /acre and improve their net income in the range of Rs. 436 (other oilseeds) to Rs. 19959/acre (Horticultural crops) depending on type of crop due to adoption of farm mechanisation as compared to non-beneficiary farmers, depending on type of crop. The farmers were able to record net return to cost ratio in the range of 1.53 (ragi) to 6.87 (Bengal gram) for various important crops grown.
- As a result of adopting farm mechanisation, positive association was established between extent of using farm machines/ equipment (M B plough) and the soil moisture conservation, as well as between productivity and soil moisture conservation.
- Adopting farm mechanisation also resulted in improvement of area under cultivation within the overall limits of total land holding of individual farmers irrespective of category of farmers. The overall improvement across the zones was 4.00 acres to 4.87 acres due to intervention of CHSC which works out to an increase of 21.52%.
- Majority of the beneficiary farmers have expressed satisfaction about the service as indicated by 61.2% farmers expressing in favour of the service. However, the service providers want to discontinue the services once the contractual period ends up. The reasons for their dissatisfaction were many, important being method of supplying the equipment, erratic and delayed release of subsidy under slab 1 and 2 and uncertainty of ownership of machines/ equipment after the contract period, besides, poor infrastructure facilities for safe storage of equipment, which has resulted in rusting of machinery

Major Recommendations:

- The hiring of machines and equipment should be offered to marginal and small farmers in general and SC/ST farmers on priority at the rates lower than market rates. CHSCs need to be financially compensated by the Government to cover the difference between offered hire rates and market rates.
- Department should popularise the use of equipment and availability at CHSC.
- DIC should fix the hire charges based on fuel prices, labour wages, rent and depreciation once a year.
- CHSCs should be free to purchase machineries/equipment based on the survey from the empanelled suppliers as per the rate contract in order to add required number of machineries/equipment.
- Service providers should be encouraged to establish CHSC in every hobli duly considering the maximum distance between any CHSC and village should not be more than 10 Km or in the alternative, CHSCs should aggregate the demand in far off villages to facilitate stocking of machines/ equipment temporarily in such villages to reduce the overhead cost of transportation for which CHSC should be compensated.
- Government should provide required infrastructure facilities in Raita Samparka Kendras or Department farms for safe storage of machinery.
- A provision of Rs. 1.00 lakh/centre annually is to be provided to meet repair and other expenses.
- A minimum regular staff for each CHSC should be Manager, Computer operator,
 Group-D worker and Driver on contract basis, besides, provision to take additional drivers- depending on the necessity in season.
- The ownership of the machinery and equipment should rest with CHSC after the life period of concerned machinery/equipment.
- To cover more farmers in the service area there is a need to conduct more awareness campaigns, field demonstrations, publicity through village wall posters, mass media, newspapers and local Self-Help groups (SHG) for better access to CHSC benefits.

1 BACKGROUND

One of the formidable challenges in profitable agriculture is timely farm operation in tune with prevailing rainfall pattern and stage of the crop. Small and marginal farmers (who constitute more than 80% of farmers of Karnataka) are more vulnerable to this challenge, as they neither can afford to purchase costly hi-tech machines used in lieu of manual labours, nor they afford to pay higher wages to labours like rich farmers. As a result, their crop yields dwindle due to host of reasons centering on untimely farm operations. Even traditional use of bullock pairs are vanishing from rural scenario due to non-availability of draft animals and prohibitive feed costs or when available, costly to afford their hire rates. The delicate income structure of small and marginal farmers is also prone to unpredictable rainfall, if they happen to own unirrigated lands. Practically, all the farm operations for success in agriculture are hovering around attending timely farm operations at an affordable cost (see box below), which is not possible without the use of farm machines.



It is absolutely necessary to adopt mechanization instead of conventional method of farm operations, because

- i. Human labour is not available during peak period of requirement and costly/ unaffordable, when available (ex: weeding / sowing/ planting operations)
- ii. The bullock pairs are not available during peak requirement and maintaining them by the farmers is costly due to prohibitive fodder costs and higher manpower costs of maintaining them.
- iii. Traditional method of farm operation will take more time and is not in tune with loss of soil moisture, before which land preparation/ sowing operations should be completed. The use of machines helps to cover more area in less time.
- iv. Timely cultivation using machines will help in conserving soil moisture, which helps in better performance of the crops.

Mechanization of small and marginal farmers of Karnataka to help them to attain higher productivity is possible only by offering those services of hi-tech machines and equipment on hire basis at affordable rates. To meet this crucial demand of small and marginal farmers, establishment of custom hire service centres (CHSC) was necessitated.

With tractor density of 6/1000 ha of cultivated area (Table 1.1), Karnataka state is seriously under equipped for large scale adoption of farm mechanisation as compared to states like Gujarat (15.2), Bihar (13.1), Madhya Pradesh (13.2) and Rajasthan (18.9). Even, these tractors are generally owned by large farmers and small/ marginal farmers have no access to farm mechanization, unless they are provided with custom hiring services.

Table 1.1: Tractor density in different states

Particulars	Punjab	Haryana	U.P	Rajasthan	Gujarat	M.P.	A.P.	Karnataka
Tractors/ 1000 ha	79.3	56.4	47.0	18.9	15.2	13.2	8.2	6.00

Source: Anupam Sarkar, 2009, Tractor production and sales in India, University of Kolkata. Pub: Review of Agrarian studies pp: 62-63

1.1 Past experience of CHSC in Karnataka

Efforts were made in 2012-13 under National Food Security Mission by the Department of Agriculture, wherein 660 custom hire centres were established in 13 districts of the State through Primary Agriculture Co-operative Societies by providing only tractor, power tiller rotovator and multi crop thresher at a cost of Rs.5.00 lakh to each centre. This exercise did not succeed due to limited number of machineries and higher overhead costs. After two years of running, these centres became financially unviable due to seasonal nature of operations, limited number of machinery as well as high overhead costs to meet the driver salary/ manager. However, the feedback of such exercise was that such a scheme will be a boon for small and marginal farmers, who cannot invest on costly machines but face constraints of timely farm operations.

1.2 Launching of Krishi Yantra Dhare Scheme

Indian agriculture is undergoing a gradual shift from dependence on human power and animal power to mechanical power because of increasing cost involved in the upkeep of animals and growing scarcity of human labour. Further, use of mechanical power has a direct bearing on the productivity of crops apart from reducing the drudgery and facilitating timeliness of agricultural operations. Thus, there is a strong need for taking farm

mechanization, since it brings in timeliness and precision to agricultural operations, greater field coverage over a short period, cost effectiveness, efficiency in use of resources and applied inputs, conservation of available soil moisture under stress conditions and provision of adequate drainage of excess rain and flood waters. The increasing labour costs during the peak agricultural period has led to increase in the cost of cultivation of small and marginal farmers. The major constraint in mechanization is that small and marginal farmers cannot afford to purchase costly machinery and equipment. Even maintaining a pair of bullocks too has become an expensive proposition. Since the agricultural operations are time bound, Mechanization of farm activities is the need of the hour to increase production and productivity. Though subsidy is being provided for purchase of farm machinery, due to prohibitive cost of farm machinery, all farmers may not come forward to own them. In this context, establishment of Krishi Yantra Dhare programme was a boon to farmers. Krishi Yantra Dhare enabled to overcome these constraints as they provided the services of machinery on hire basis to farmers in right time.

Rashtriya Krishi Vikas Yojana (RKVY) was initiated in 2007 as an umbrella scheme by Govt. of India for ensuring holistick development of agriculture and allied sectors in different states. Many projects were implemented with RKVY funding in the sectors of crop development, agricultural mechanization, horticulture, natural resource management, marketing and post harvest management, animal husbandry, dairy development, fisheries, research and extension in Agricultural Universities etc. Although initially started at 100% funding from GoI, later from 2015-16, the funding pattern was altered in the ratio of 60:40 between Centre and States. Major objectives of RKVY includes, strengthening the farmers' efforts through creation of required pre and post harvest agri-infrastructure, promotion of value chain linked production models, risk mitigation of farmers with focus on additional income generating activities.

To address these constraints of farm mechanisation of marginal and small farmers, Karnataka state launched a flagship programme called Krishi Yantra Dhare under PPP (public- private partnership) mode from 2014-15. The shortcomings of earlier scheme were overcome in the revamped scheme by wider base of machines/ equipment and sound capital base using PPP mode. The intervention of providing facilities to the farmers to use appropriate farm machineries at the required time on hire basis through custom hire service centres (CHSC) is an ambitious programme launched by Government of Karnataka in the entire state. This intervention was expected to bring the change in terms of crop productivity,

farm income, and reduction in cost of cultivation in all categories of farmers, with special reference to small and marginal farmers, who form a large chunk of the farming community. The axiom in anticipating the change is that non-availability of / non-affordability to purchase all farm machineries by the farmers results in failure to take up the farm operations in the desired time schedule leading to reduced productivity or reduced area coverage there by leading to reduced production and farm income.

Krishi Yanthra Dhare scheme was implemented from 2014-15 at hobli (sub-block) level to ultimately cover all the hoblis in a phased manner. During 2014-15, 175 centres and during 2015-16 and 2016-17, 160 centres were established. Totally 335 centres are operational at the end of March 2017. These centres were established in the State utilizing the funds of RKVY (as the funds available are provided by the Government of India as 100% grants for improving the Agriculture and allied sectors) through functional Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956), Government organisations (NGOs), Registered Farmers Producers Organizations (FPOs)/Farm machineries Manufacturers/Individuals who are currently running Custom hire service centres as franchisees (called service providers) provided they were registered as individual proprietor firm on PPP model.

1.3 Objectives of the Krishi Yantra Dhare Scheme

- a. To address the constraints in land preparation activities by providing efficient land preparation farm machinery and equipment on Custom Hire Service basis.
- b. To reduce sowing/transplanting window leading to consequent reduction in harvesting window.
- c. To ensure effective inter-cultivation and other cultural operations.
- d. To ensure effective harvesting with reduced harvest window leads to minimization of harvesting losses.
- e. To encourage in-situ moisture conservation and to harness the residual moisture of Kharif season for Rabi Pulses and Oilseeds.
- f. To enhance the production and productivity of the crops.
- g. To provide services of Hi Tech Farm Machinery services to marginal and small farmers.
- h. To run the centres throughout the year effectively, efficiently and profitably.

1.4 Network of established CHSCs

In ten agro climatic zones of Karnataka, spread over 30 districts, 335 CHSCs were established between 2014-15 and 2016-17. The summary of the distribution of established CHSCs is presented in Table 1.2.

Table 1.2: Distribution of CHSCs in Karnataka

Sl.	Name of the service provider	Districts covered	No. of CHSCs
1.	Sri Kshethra Dharmasthala	Bagalkote (7), Bengaluru Rural (4),	164
	Rural Development	Belgaum (15), Ballari (7),	
	Programme, Dharmasthala	Chamarajanagar (4), Chikkaballapur	
	(SKDRDP)	(6), Chikkamagalur (8), Chitradurga	
		(7), D. Kannada (5), Davanagere (6),	
		Dharwad (5), Gadag (5), Hassan (8),	
		Haveri (7), Kodagu (3), Kolar (4),	
		Koppala (4), Mandya (7), Mysuru (7),	
		Raichur (7), Ramanagara (4),	
		Shivamogga (7), Tumakuru (11),	
		Udupi (3), U. Kannada (11)	
2.	Indian Society of Agri.	Yadgir (1), Kalaburagi (4), Bidar (6)	11
	Business Professionals,		
	Kalaburagi (ISAP)		
3.	VST Tractors and Tillers Pvt.	Tumakuru (20), Chitradurga (10),	79
	Ltd., (VST)	Chikkaballapura (6), D. Kannada (6),	
		Mandya (12), Udupi (4), Bengaluru	
		Urban (4), Bengaluru Rural (7),	
		Belagavi (10)	
4.	John Deer India Pvt. Ltd.,	Dharwad (3), Gadag (5), Kolar (12), U.	33
	(JOHN)	Kannada (1), Shivamogga (3),	
		Davanagere (7), Bagalakote (2),	
5.	Kalachethana Yuva Samasthe,	Vijayapura (7)	7
	Vijayapura (KALA)		

Table 1.2: contd....

Sl. No.	Name of the service provider	Districts covered	No. of CHSCs
6.	Mahindra & Mahindra Ltd., (M&M)	Koppala (3), Ballari (9), Yadgir (4), Mysuru (10), Kalaburagi (11), Raichur (4)	41
	Total		335

The District-wise distribution of CHSC by different service providers is presented in Table 1.3.

Table 1.3: District and service provider wise distribution of CHSCs

SL.NO	DSITRICT	SKDRDP	ISAP	VST	JOHN	KALA	M & M	Total	Percent
1	Bagalkote	7			2			9	2.7
2	Ballari	7					9	16	4.8
3	Belagavi	15		10				25	7.5
4	Bengaluru Rural	4		7				11	3.3
5	Bengaluru Urban			4				4	1.2
6	Bidar		6					6	1.8
7	Chamarajanagara	4						4	1.2
8	Chikkaballapura	6		6				12	3.6
9	Chikkamagaluru	8						8	2.4
10	Chitradurga	7		10				17	5.1
11	D. Kannada	5		6				11	3.3
12	Davanagere	6			7			13	3.9
13	Dharwad	5			3			8	2.4
14	Gadag	5			5			10	3.0
15	Hassan	8						8	2.4
16	Haveri	7						7	2.1
17	Kalaburagi		4				11	15	4.5
18	Kodagu	3						3	0.9
19	Kolar	6			12			18	5.4
20	Koppala	4					3	7	2.1
21	Mandya	7		12				19	5.7
22	Mysuru	7					10	17	5.1
23	Raichur	7					4	11	3.3
24	Ramanagara	4						4	1.2
25	Shivamogga	7			3			10	3.0
26	Tumakuru	11		20				31	9.3
27	Udupi	3		4				7	2.1

Table 1.3: contd....

SL.NO	DSITRICT	SKDRDP	ISAP	VST	JOHN	KALA	M & M	Total	Percent
28	Uttara Kannada	11			1			12	3.6
29	Vijayapura					7		7	2.1
30	Yadgiri		1				4	5	1.5
Total		164	11	79	33	7	41	335	
% share		49	3	24	10	2	12		100

The share of different service providers are as below:

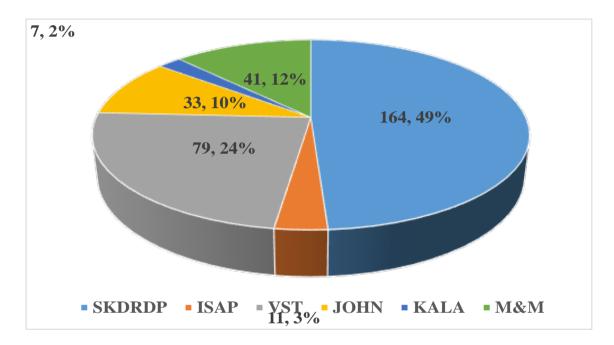


Fig 1.1: Share of service providers in 335 CHSCs established till March 2017

The CHSCs were established under Krishi Yantra Dhare scheme mainly to facilitate timely mechanisation and larger coverage of the land to address the agrarian issues like labour shortage, inability of farmers to invest on machineries, increased cost of land preparation, non-availability of bullock pairs in the critical time and non-coverage of cultivable land for sowing due to delay in land preparation. The services of CHSCs are expected to result into the following outcomes:

- ➤ Reduced dependence on human and bullock labour
- ➤ Reduced cost of operations dependent on labour
- > Timely operations
- ➤ Improved soil moisture conservation
- > Increase in yield
- ➤ Increase in farm income

2. PHYSICAL AND FINANCIAL PERFORMANCE OF KRISHI YANTRA DHARE

The scheme was named as Krishi Yantra Dhare as per Government Order Agri Dept 54 No 2015 dated 30.3.2015 after the scheme was launched during 2014-15. However, the details of the scheme were highlighted and regularized in subsequent Government Order No Agri Dept 05 No 2017 dated 26.2.2018. (Copies of both GOs enclosed as Annexure I and II)

The programme was implemented through Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956)/Organisations/non-Government Organisations (NGO)/Registered Farmers Producers Organisations (FPOs)/Farm machineries manufacturer/individuals who were currently running custom hire service centres as franchisees provided they were registered as individual proprietor/s firm (referred as Service providers) under PPP model.

The funding for establishing CHSCs is provided under flexi funds under RKVY. The projects considered under this funding are integrated development of major food crops, fodder crops, agricultural mechanization, enhancement of soil health, development of rainfed farming systems etc. The assistance under agricultural mechanization is provided to individual beneficiaries for small machineries, however, assistance for large equipments *viz.*, tractors, combine harvesters, cotton picker etc. is provided for establishing custom hire service centers under RKVY. The CHSCs in Karnataka are established through RKVY funding.

2.1 Funding pattern for Krishi Yantra Dhare Scheme

An amount of Rs.1.50 lakh per centre was granted towards initial establishment for administrative/Office expenses by the Department. Additionally, for ongoing centres, an assistance was given to purchase new or replacement of machinery @ Rs. 5 lakh only for the centres with more than Rs. 10 lakh annual turnover, and Rs. 2.5 lakh for those having less than Rs.10.00 lakh annual turn-over. This assistance was given on the basis of 50 % Government assistance and remaining 50% borne by the Service provider. This assistance was extended up to 3 years from the date of initial establishment.

After 3-5 years of performance, these CHSCs have accumulated large number of experiences, varying levels of performances, constraints of operations and management, expectations of funding, perceptions of improving their services and differential financial

status. It is the right time to evaluate them from wide array of perspectives and then decide how they can be redesigned for future expansion. Undoubtedly, efforts to penetrate farm mechanisation strategies to large chunk of farming population dominated by small and marginal farmers needs to be continued.

The scheme was implemented through participation of charitable trusts, non-government Organisations and farm machinery manufacturers under PPP mode.

During 2014-15, 175 CHSCs were established, out of which 164 centres were sponsored by Sri Kshetra Dharmasthala Rural Development Project (SKDRDP) and remaining 11 centres were established by Indian Society of Agribusiness Professionals, New Delhi with collaboration of Government of Karnataka and with following funding structure:

Every centre received Rs 75 lakh grants once in every two years, out of which Rs 50 lakhs was contributed by Government of Karnataka and Rs 25 lakh were contributed by concerned agencies (Table 2.1). These funds were made available to establish CHSCs from RKVY grants. A total of 23601 farmers were benefitted during 2014-15.

Government share Agency's share **Total** Year (Rs in lakh) (Rs in lakh) (Rs in lakh) 37.5 (75%) 12.5 (25%) 50.00 (100%) First year Second year 12.5 (50%) 12.5 (50%) 25.00 (100%) Total 50.00 (66.6%) 25.00 (33.3%) 75.00 (100%)

Table 2.1: Details of funding

Implementation from 2014-15 to 2016-17

From 2014-15 to 2016-17, totally 335 Krishi Yantra Dhare centres were established by 6 Service Providers (Table 2.2) in collaboration with Government of Karnataka.

Table 2.2: Establishment of CHSCs by different service providers

Service Providers	Centres to be established as per orders	Number of centres actually established
Sri Kshetra Dharmastala Rural	164	164
Development Project, Dharmastala		
Kalachetana Yuva Samsthe, Vijayapura	07	07
VST Tillers Tractors Limited, Bengaluru	79	79
Mahindra and Mahindra, Mumbai	41	41
John Deer Pvt Ltd, Pune	33	33
Indian Society of Agri-business Professionals, New Delhi	11	11
Total	335	335

The grants were provided to these service providers from the funds of RKVY under two slabs, depending on the intensity of agricultural activities

Slab-1. Rs.75.00 lakh: Farm Machineries of Rs.75.00 lakh worth are proposed to be deployed in each centre. The Department of Agriculture proposed to establish 181 CHSCs during the year 2017-18 under Slab-1 (Table 2.3).

Slab-2. Rs.50.00 lakh: Farm Machineries of Rs.50.00 lakh worth are proposed to be deployed in each center (Table 2.4). In Malnad region (Dakshina Kannada, Udupi, Uttara Kannada, Kodagu, Shivamogga and Chikmagalur-6 Districts) and in the areas where mono-cropping system is common (Kolar and Chikkaballapur-2 Districts), wherein, Rs.75.00 lakh worth implements may not be required. In these Districts under Slab-2, the Department of Agriculture proposes to establish 69 CHSCs during the year 2017-18.

Table 2.3: Grants released to each CHSC under slab I as back-ended subsidy

Slab I

Year	Government share (Rs in lakh)	Agency's share (Rs in lakh)	Total (Rs in lakh)
First year	37.5 lakh (75%)	12.5 lakh (25%)	50 lakh (100%)
Second year	12.5 lakh (50%)	12.5 lakh (50%)	25 lakh (100%)
Total	50.00 lakh (66.6%)	25 lakh (33.3%)	75 lakh (100%)

The scheme was implemented in Bengaluru (urban), Bengaluru (rural), Ramanagara, Chitradurga, Davanagere, Mysore, Chamarajanagar, Mandya, Hassan, Dharwad, Gadag, Belgaum, Bidar, Vijayapura, Bagalkote, Raichur, Koppala, Bellary, Kalaburgi and Yadgir districts

Slab II

Table 2.4: Grants released to each CHSC under slab II as back ended subsidy

Year	Government share (Rs in lakh)	Agency's share (Rs in lakh)	Total (Rs in lakh)
First year	30.0 (75%)	10.0 (25%)	40 (100%)
Second year	5 (50%)	5 (50%)	10 (100%)
Total	35.00 (66.6%)	15 (33.3%)	50 (100%)

The scheme was implemented under Slab II in Kolar, Chikkaballapur, Shivamogga, Kodagu, Chikkamagalur, Dakshina Kannada, Udupi and Uttara Kannada districts.

The back-end subsidy released to service providers was not specifically linked to the credit availed by them, keeping the option open for them to link the subsidy released to their bank loan or not depending on whether they have availed the loan from the bank.

The scheme is continued in subsequent years 2017-18, 2018-19 and 2019-20. From 2014-15 to 2016-17, 585966 farmers were covered with the release of Rs 13301.38 lakh and an expenditure of Rs 12816.37 lakh (96.8 % utilization) (Table 2.5)

Table 2.5: Year-wise fund release and physical progress of covering the beneficiaries

Year	Grants released (Rs in lakh)	Expenditure (Rs in lakh)	Farmers covered	Ratio of Expenditure to release	Expenditure per farmer (in Rs.)
2014-15	6862.50	6377.49	23601	0.93	27000**
2015-16	3062.11	3062.11	154109	1.00	2000
2016-17	3376.77	3376.77	408246	1.00	8000*
Total	13301.38	12816.37	585956		

Note.: * Higher ratio is due to utilizing unspent grants of previous year.

** Initial establishment charges were released in 2014-15

An initial establishment grant of Rs 1.5 lakh per centre was released (for Administrative/ Office expenses) by the Department.

For ongoing centres, assistance was given to purchase new or replacement of machinery at following rates:

- For the centres with more than Rs. 10 lakh annual turnover Rs.5.00 lakh/yr.
- For the centres with less than Rs.10 lakh annual turnover Rs.2.50 lakh/yr.

This assistance was given on the basis of 50% share and remaining 50% borne by the Service provider. This assistance was extended up to 3 years from the date of initial establishment.

2.2 Selection of machineries and equipment

Hobli level survey is conducted every year by the Service provider within the proposed jurisdiction of each of the CHSCs. The selection of implements is based on farmers' need and prevailing cropping system. District Implements Committee headed by Chief Executive Officer, Zilla Panchayat will finalize the implements and also fix the nominal hiring charges for equipment shelved in the CHSC Centres (Table 2.6).

Table 2.6: District Implements Committee

1	Chief Executive Officer, Zilla Panchayat	Chairman
2	District Joint Director of Agriculture	Vice- Chairman
3	President of District Krishik Samaj	Member
4	Assistant Director of Agriculture (SMS)	Member secretary and
		District Nodal Officer
5	ADAs of all taluks in the district	Member
6	Two progressive farmers/ Krishi Pandit awardees	Member
7	Leading Farm Machinery Manufacturer in the District	Member
8	Representative of Krishi Yantra Dhare service provider	Member
9	Representative of University of Agricultural Sciences	Member

2.3 Monitoring arrangement

After getting approval from District level Committee for number and type/models of equipment and their hiring charges which are shelved in the Krishi Yantra Dhare Centres by the Service Provider, requisite verification/monitoring will be done by the Department officers for the equipment shelved in the Krishi Yantra Dhare Centres.

Further, Service Provider should submit the annual Utilization Certificate for all the financial transactions of the CHSC through Department officers and Service Provider should submit audited statement every year to Assistant Director of Agriculture, Deputy Director of Agriculture, Joint Director of Agriculture of the districts and office of Commissioner of Agriculture at state level.

3. PROCESS EVALUATION OF IMPLEMENTATION OF KRISHI YANTRA DHARE

The scheme was implemented as per Government Orders and subsequent KYD guidelines. (Copy of guidelines enclosed as Annexure III). The existing process is reviewed against the guidelines. The details of implementation are given below:

3.1 **Process of establishing CHSCs**

- i. Issue of notification by the Director of Agriculture inviting for expression of interest (EOI) from competent and eligible firms/ companies, who fulfil the eligibility criteria to establish CHSCs in different districts of Karnataka
- ii. Evaluation of proposals of EOI based on approved criteria and allotment of marks for each criterion and preparation of final list of eligible firms/ companies (now called as service providers).
- iii. Negotiation with eligible firms/ companies and allotment of districts and respective hobli centres within the district to different service providers followed by signing of agreements between Director of Agriculture and respective service providers. (agreement copy enclosed)
- Release of Rs 1.5 lakh to selected service providers as one-time grant for each of iv. selected hobli centres allotted to them to meet initial administrative / office expenses in the process of establishing CHSCs.
- Conducting the bench mark survey by CHSC/ service providers in allotted hobli v. centres to assess the demand for different types of machineries/ equipment and preparation of list of type and number of required machineries/ equipment and submission of such list to JDA for approval at DIC.
- vi. Procurement of machines and equipment as per guidelines
- vii. Commencement of hiring services by CHSCs.
- viii. Successful service providers should establish the centres (CHSCs) within 3 months from the date of agreement.
- ix. Department officers will monitor the progress of scheme and also responsible for physical verification. They should also visit the centre frequently to supervise the centres services and inspect the books of accounts of CHSC from time to time.
- The agreement is valid for a period of 6 years from the date of signing the agreement. х.

3.2 Process of procurement of machines and equipment

- Short-listing and approval of the suppliers based on techno- commercial evaluation by
 Director of Agriculture following KTTP guidelines, considering the specifications of
 machines/ equipment, quality and finalisation of rate list for the supply of machines/
 equipment required by CHSC.
- ii. Issue of work orders to approved/empanelled suppliers by ADA as per the approved rate list for the supply of machines/ equipment approved by DIC after ensuring that CHSC have contributed their 25% share for each of the items approved in DIC, following KTTP guidelines (copy of guidelines enclosed). The total value of work orders will be restricted by the allotted grants to each centre (Rs 75 lakh in slab I and Rs 40 lakh in slab II).
- iii. If the machine/ equipment is not included in approved rate list, ADA can still order from empanelled suppliers by taking the approval of the same in District Implements Committee by following KTTP guidelines or Government E-market place (GEM) or by following guidelines for general purchase (if the value of the work order is less than Rs 1 lakh)
- iv. Suppliers will supply the ordered machines and equipment to respective CHSCs. After physical verification of supplied machines/ equipment by Department officials, release of invoiced value of machines/ equipment to suppliers by consolidating CHSC share of 25% and back ended subsidy @ 75 %.

3.3 Process of finalization of machinery/ equipment and their hire rates

This process is adopted to finalise the type of machinery/ equipment and their numbers independently by each CHSC, which is applicable to both initial purchase of machines/ equipment at the time of establishment of CHSC and subsequent purchases by CHSC depending on the demand assessed by the need-based survey.

i. Conducting the bench mark survey by CHSC to decide the type and number of machines/ equipment required to be shelved at the centre in the context of cropping pattern of the area, farmers' needs and region-specific issues. However, the total value of machines/ equipment should not exceed the grants allotted to each CHSC.

- ii. Submission of list of required machines/ equipment and their numbers to JDA for seeking approval by DIC.
- iii. District Implements Committee (DIC) is headed by CEO, ZP and has district JDA as member secretary and ADA (SMS), leading farm machinery manufacturers of the district, President of District Krishik Samaj, Krishi Prashasthi awardee, CHSC representative, representative scientist of Agricultural University and two progressive farmers as members.
- iv. DIC will finalise the type and number of machines/ equipment needed for each centre restricting to the total value within the grants allotted to each CHSC after a thorough discussion.
- The profit earned by CHSC will be used to strengthen the centre by additional v. purchase of machines/ equipment after placing their requirement in District Implements Committee and getting them approved.
- vi. DIC will also decide the hiring rates of each machines/ equipment (Copy of proceedings of CHSC, Bengaluru Rural enclosed vide Annexure V) taking into consideration of fuel prices, interest payable to the bank on loan, return on investment, salary of drivers, repairs (preventive and break down), rent, distance from service centres to field, wear and tear, life of machinery and other incidental expenses including establishment expenses. The rates should be reasonable, realistic and should be in reference to the market rates as obtained from time to time (Table 3.1).
- vii. The hire charges should be revised once in six months.
- viii. Separate hire charges should be fixed for small and marginal farmers and other categories of farmers to ensure that these charges are lower than other category farmers
 - ix. CHSCs may identify the machines/ equipment not used or having less demand by them in their centre and transfer them to other CHSCs, if adequate demand for such machines exists in their respective jurisdiction after taking the approval of District Implements Committee.

Table 3.1: Comparative Analysis of implementation processes

Process	What has been followed	What should have been followed
Establishment of CHSCs	Number and type of machines/equipment were decided on adhoc basis without scientific demand survey Release of subsidy was delayed	Decision regarding type and number of machines/ equipment based on demand assessment Release of one time grant and
	release of subsidy was delayed	subsidy for purchase of machineries and equipment immediately after establishment
Process of procurement of machineries and equipment	The number of machines/equipment was restricted by total grants allotted to each centre in SLAB I and SLAB II	Approval of list of machineries/equipment by DIC including their numbers
	Generally, the purchase was restricted to approved rate list	Machines outside the approved rate list could be purchased after approval from DIC
	The CHSCs could not earn profit and hence, additional purchase of equipment/machines was not done	The profit earned by CHSCs will be used to purchase additional equipment/machine
Fixing of hire rate	In deciding the hiring rates and revising it these parameters were apparently ignored and rates were decided on adhoc basis to keep them lower than market rate	Deciding the hiring rates considering fuel prices, bank interest, salaries, repairs, rent, distance and wear and tear as well as incidental expenses
	Revision is not done every 6 months	Revision of hire rates by DIC every 6 months
	Not done	Fixing of separate hire charges for MF/SF
Ownership of machinery	The agreements indicate that the ownership of the machineries is not transferred to the service providers.	The ownership of the machineries have to be transferred to the service providers after the agreement period to motivate better maintenance of the machines

3.4 Obligations of CHSCs as per guidelines

- i. Display of board outside the premises indicating the type of machinery/ equipment and their hire rates.
- ii. Offering equipment and machines shelved in CHSC at the rates approved by DIC to the farmers in the jurisdiction of CHSC. They must offer the services to marginal and small farmers at concessional rates of hiring fixed by DIC
- Responsibility of payment of taxes/duties of all types lies with CHSC iii.
- iv. Maintenance of separate bank account indicating the receipts from rent and different expenses in running CHSC
- Maintenance of books of accounts v.
- Yearly audit of the centre and submission of audited statements of accounts as vi. well as Audit Utilization Certificate to JDA
- vii. Submission of progress reports to JDA through taluka ADA.
- viii. Preparation of revised rates of hiring considering the fuel prices, interest payable to the bank on loan, return on investment, salary of drivers, repairs (preventive and break down), rent, distance from service centres to field, wear and tear, life of machinery and other incidental expenses including establishment expenses and later submission to JDA for approval in DIC
 - ix. Conducting demand survey every year and based on this, preparation of list of additionally demanded machines/ equipment for submission to JDA for approval in DIC
 - Keeping all shelved machines/ equipment in good condition and getting them Χ. repaired from time to time
 - Along with concerned Department officials, taking up measures in xi. jurisdictional area to popularise the scheme and services available at the centre
- To arrange for contractual driver, in times of need, when permanent driver is xii. not available to meet specific service for the farmers

3.5 Duties and Responsibilities of District Implements Committee

As per guidelines of Krishi Yantra Dhare scheme issued by the Department of Agriculture, following are the duties and responsibilities of District Implements Committee facilitating the implementation of Krishi Yantra Dhare scheme:

- i. District Implements Committee (DIC) is headed by CEO, ZP and has district JDA as member secretary and ADA (SMS), leading farm machinery manufacturers of the district, President of District Krishik Samaj, Krishi Prashasthi awardee, CHSC representative, representative Scientist of Agricultural University and two progressive farmers as members.
- ii. DIC should meet once in six months and approve / revise the list of machines/ equipment for the concerned CHSC established in the respective district based on the bench mark/demand survey conducted by CHSC taking the active involvement of member secretary JDA and other members considering the cropping pattern, soil types, seasonal operations and area to be covered by each CHSC.
- iii. DIC should also revise the hire rates of machines/ equipment for each CHSC within its jurisdiction every six months compulsorily considering salary of staff, fuel cost, repair charges, rent, profit margin to the centre and maintenance charges so as to ensure that these rates are lower than local hiring charges
- iv. DIC should fix separate hire rates for marginal and small farmers to ensure that their rates are lesser than those applicable for other farmers
- v. All the above modifications will bring about higher efficiency in offering better hiring services in the interest of the farming communities.

4. REVIEW OF PAST LITERATURE ON EVALUATION OF FARM MECHANISATION

Hiring farm machineries in Indian villages is not uncommon. Unused machines were hired between farmers on friendly basis and later on for gratification. It was, then, only a tool to engage the idle capacity of machineries to recover the investment quickly. Of course, such hiring was then restricted to moving machineries like tractor, trailer, tiller and even bullock drawn implements like yoke, ploughs, farm implements. On friendly basis, it was then called 'borrowing a machine'.

From such a simple model, hiring of farm machines has been tried in different forms with varying combinations throughout India. From individualistic approach, hiring of farm machineries has transformed into institutionalisation and even recently formalised in Government policies as a tool to improve the agricultural production as well as to effectively adjust to changing climatic parameters. The objectives of hiring have also transformed from earning to social justice and equity considerations. The coverage of such hiring farm machineries has also witnessed vast changes to include an array of machines, equipment, accessories and many standalone facilities in the domains of preparatory tillage, secondary tillage, planting, harvesting, digging, threshing, winnowing, drying, processing, cleaning, plant protection etc. to cater to diverse needs of agricultural operations. It has also become a contrivance to empower the weaker farmer with limited means and a holding size not supporting the purchase of large machineries. Recent strategies in Government policies and programmes have included 'custom hiring of farm machineries' as a vehicle to spread and popularise farm mechanisation in a major chunk of farming population with small and marginal holdings.

The first effort to institutionalise the farm equipment hiring services in Karnataka was made during 2011-12, as a strategy to augment pulse production under National Food Security Mission. Nearly 660 centres were established in selected 13 districts to offer the custom hiring services of farm machinery. It was discontinued in 2014. Later during 2014-15, a scheme was launched to establish 164 custom hire service centres under PPP mode through Sri Khestra Dharmasthala Rural Development Agency (under Slab I). The scheme was later expanded to other uncovered areas through other five agencies namely John Deer, VST tillers, Mahindra & Mahindra, ISAP and Kala Chetana Yuva Samsthe (under Slab II). The

present evaluation aims to cover CHSCs of all the service providers from 2014-15 to 2016-17.

Many other efforts were reported from different parts of India about promoting farm mechanisation through custom hiring centres. Highlighting the importance of custom hiring services for small and marginal farmers, Sukhpal Singh et al (2013) indicated that every farm house hold uses tractors in Punjab, although 40% of them own tractors. However, the custom hiring farmers of Punjab reported the problems of costly, inadequate and lack of timely availability of custom hiring services resulting into no improvement in farm productivity in custom hired farmers as compared to tractor owned farmers. This experience served as guideline to entire nation and indicated that only well-maintained machines/ equipment, timely availability and cheap hire charges can make CHSCs more successful.

In Madhya Pradesh, an exclusive Directorate of Engineering was established way back in 1989 to offer a range of services on promotion of farm machinery including establishment of CHSCs. The main objective of establishing CHSCs in Madhya Pradesh included improvement in farm productivity and reduces dependence on human labour. Different modes of CHSCs like PPP managed, entirely private run and cooperative run were tried in MP.

It was concluded during a market review of market mechanisation (India International Centre, 2017) that market drivers to improve power availability in Indian farms were severe labour shortage experienced at different stages of crop growth and low penetration of tractor use especially in small and marginal holdings, who form 80% of total holdings in India, The only possibility of achieving penetration in this segment is through different forms of custom hire services to make the farm machinery affordable in this major sector. Number of tractors available in India per 1000 ha is abysmally low at 15.75 as compared to Japan at 461.22, UK at 88.34 and even neighbouring Pakistan at 16.47 (FAO, 2003). It is necessary to increase farm power availability from present 0.93 Kw/ ha to 2.00 Kw/ha by 2025 to meet the challenges of increasing the farm production under aggravating labour shortages in farm sector. In India, the level of mechanization varies greatly by region. States in the north such as Punjab, Haryana and Uttar Pradesh have high level of mechanization due to highly productive land in the region as well as declining labour force. The Governments in these states have also provided timely support in promoting mechanization of farms.

Karnataka state already has lower tractor density (6/1000 ha), as compared to 15.75 at the national level. The vision document prepared by the State of Karnataka has envisioned to increase this density to at least 100/1000 ha by 2025 (Govt. of Karnataka, 2018). The vision document also recommended establishment of CHSC in every Gram Panchayat to extend the benefits of farm mechanisation to the farmers, who cannot afford to purchase them on their own.

The western and southern states in the country have a lower level of mechanization due to the smaller land holdings prevalent in these regions as well as the land holding being more scattered (India International Centre, 2017). This indicates the necessity to adopt the policy of promoting CHSCs in south India more rigorously to augment farm power.

A CASE STUDY

A farmer named P Satyanarayana from Sindhanur is reported to have made fortunes by adopting private model of custom hiring. He purchased one combine harvester CROP TIGER Terra Trac during 1999. After meeting the demand on his farm (which lasted for 2 days during harvesting season) he successfully hired it to neighbouring farmers to make their job easy. He is reported to have purchased 8 such machines mainly for hire purposes and earns more by hire business than from his land. As the harvesting season is stretched over 1-2 months and widely varying across the regions, he could get the business for long period in a year.

- An Interview with Sri Mrityunjaya Singh, MD, CLASS Machinery on 17 January 2015

Although Karnataka state has adopted a model of custom hiring under PPP mode, there have been a number of other alternatives to provide the services of costly farm machineries to small and marginal farmers reported from different parts of country. In Punjab and Haryana, Primary Agricultural Cooperative Societies have been handling the custom hire services. In these centres, farm machinery is provided to the farmers along with other inputs like fertilizers, pesticides and seeds. In Madhya Pradesh, large farmers are encouraged to purchase the costly equipment on specific agreements, to provide hiring services to small farmers. A new scheme was released in Telangana to provide the farm machinery on hire free of cost by using a specific app developed by TAFE named as JFarm Services App, which will connect tractor holders and Custom Hiring Centres (CHCs) run by tractors and equipment owners directly to the farmers looking for farm mechanisation solutions. Farmers can hire or rent tractors and other equipment through the JFarm Services. Yet another type of service model is reported by a group of entrepreneurs of Hyderabad. In this system, equipment

owners get a fixed rental on a monthly, three-monthly or a six-monthly contract that ranges from Rs.30 to 40 thousand per month depending on the kind of implements. The vehicles and tools are subsequently rented out to farmers on an hourly basis. This not only facilitates using idle capacities of farm machineries with owners but help the small farmers to utilize them at cheaper rates without owning it.

In the budget speech of 2019-20, Hon'ble Union Finance Minister announced that a 'uber-agri' will be developed to facilitate the users to book their preferred machine/ equipment on-line from pool of available machines.

Objectives of the diversified models of CHSC

The important objectives of offering the services of CHSC in all such models, include improvement in yield, reduced cost of cultivation, timeliness of agricultural operations, moisture conservation, improvement in cropping intensity /coverage of cultivated area, tiding over the seasonal labour shortages, reducing the period of post harvesting/processing agricultural products – all culminating in improved income to the farmers. Each one of the above models requires different type of funding patterns (institutional/private) and enjoy the differential levels of efficiency.

NABARD has recommended establishment of three-tier support by establishment of CHSC (NABARD, 2018). It is envisaged in 3-tier system that a CHSC will be established at every Gram Panchayat, an Agricultural Machinery Bank will be established at district level (to store costly equipment like combine harvesters for the use by any CHSC in the district) and a state level/ regional level service centres (for specialised/ package of services for specific groups) will be established.

All of them have common constraints like poor perception levels of farmers, challenges to cover long distance customers, seasonal glut in requirement of machineries, inefficiency in handling the machineries and resultant poor performance etc.

Despite many constraints in widening the network of custom hire services throughout the country and confusions about appropriate model for the whole country, there is no other way to extend farm mechanisation to small and marginal farmers excepting establishment of CHSC. As pointed out in the objectives of 'Sub Mission on Agricultural Mechanisation' of Government of India, strengthening and expanding the services of CHSC with new funding pattern and their improved governance (Govt. of India, 2019) can only lead to spread the benefits of farm mechanisation to small and marginal farmers and successfully offset the adverse economies of scale arising due to their small holding.

Many successful and healthy impacts of establishment of CHSCs are documented in recent years. Notable evidences are recorded by nationwide establishment of 100 such CHSCs in eight agro-climatic zones of country by National Initiative on Climate Resilient Agriculture (NICRA). Some of the findings (Govt. of India, 2019) are:

- In Umrani village in Nandurbar, Maharashtra, demonstration of in-situ conservation of soil and water and sowing across the slope in 10 ha area covering 25 farmers resulted in 11-13 % increase in soybean yield and conserving valuable top soil from erosion.
- Demonstration of direct seeding of rice with drum seeder at Saran in Bihar, resulted in timely sowing, save nearly 25 litres of diesel and 35 man days for transplanting and saving of pumping by 3 hours per ha thereby reducing cost of cultivation and increasing grain yield by 17%.
- Demonstration of in-situ moisture conservation through broad beds prepared across the slope for cultivation of rabi sorghum in 4.8 ha at Baramati, Maharashtra, resulted in increase in crop yield by 3 times i.e., 11.3 q/ ha compared to 3.8 q/ha in untreated control.
- Use of seed-cum-fertilizer drill facilitated crop diversification in Satna, MP, with pulses and oilseed crops where rice-wheat is the predominant system.
- In NICRA villages in Madhya Pradesh, farmers who adopted broad bed furrow
 planting method in soybean with BBF planter avoided damage to the crop due to
 excess rainfall in kharif 2013 season and realized about 40% yield advantage
 compared to flat bed sowing
- In Kota, Rajasthan, water availability is a major limiting factor for sustaining wheat productivity in the village. Hence, furrow irrigated raised bed (FIRB) system of wheat cultivation was promoted to enhance crop yield (10%) and water productivity in 40 farmers' fields by using FIRB machine. Several advantages with FIRB system over flat bed system of wheat cultivation include saving up to 25% seed, irrigation water by 30% and saved time required for irrigation.

In NICRA study conducted by Scientists of UAS, Bengaluru, it was inferred that implements placed in the custom hiring centre facilitated timely operations (like land preparation, sowing using seed drill, opening moisture conservation furrow, harvesting), facilitated better moisture conservation and increased the productivity of finger millet based cropping system by 34 - 44.7 % (Govt. of India, 2019)

Apart from direct benefits of using machineries/ equipment of CHSC, farmers can avail many indirect benefits. Some of such indirect benefits are:

- Avoiding/ minimising the drudgery of agricultural operations. Some operations are tedious and prolonged leading to gradual decrease in efficiency, when handled by human labour. Mechanisation of such operations can avoid drudgery [Ex: Threshing/ winnowing/ de-shelling]
- Tiding over seasonal labour shortage. Peak labour requiring periods like sowing/ planting/ harvesting invariably results in acute shortage of labour forcing the farmer to postpone the operations leading to reduced productivity. Machines can be helpful to attend the operations in time- without being affected by labour shortage.
- Covering large area (for ploughing, sowing, harvesting) in short period is absolutely essential for the success in agriculture, as soil moisture may be reduced or harvestable crops may be caught in rains if operations are delayed. Mechanisation of such operations helps to cover all the cultivated area owned/leased in by the farmer before soil moisture is reduced to affect germination
- Conserving soil moisture through specific operations (furrow opening, levelling, and digging) will indirectly influence the performance of the crops by ensuring better moisture availability to growing crops.

The use of farm machineries/equipment through CHSCs results into many direct benefits like timely agricultural operations, yield improvement as well as indirect benefits like reducing the drudgery, tiding over labour shortage and moisture conservation.

5. EVALUATION METHODOLOGY

The evaluation of Krishi Yanthra Dhare scheme was carried out at three different levels as per Terms of Reference (Annexure VI), viz., Farmer, service provider and official level. The farmer level evaluation included collection of information from sample beneficiaries in the service area of CHSCs and one control farmer who did not utilize the services of CHSCs for comparison. In-depth information was also collected from every sample CHSC detailing the services provided by them, machineries available and their status, the rates at which the service was provided and so on. The tertiary level of evaluation included conducting of focus group discussions with officials, service providers, farmers and other stake holders to elicit the information about the reasons for success or failure of the scheme, as well as corrective measures needed. Based on this, following three activities were planned for the evaluation: (i) Primary data collection from farmers; (ii) In-depth interview (IDI) with service providers and Department Officers and (iii) focus group discussions (FGD) with stake holders.

The collection of secondary data from field survey and various sources of Govt., or private agencies were collated along with the above data. Data and information sources are as under:

- Primary data from beneficiaries and non-beneficiaries in pre tested questionnaires.
- In Depth Information from concerned selected CHSCs in pre tested questionnaires.
- Secondary data from various Govt./private sources and service providers
- Data on reviews of earlier interventions from internet sources
- Data on ideal practices from Agricultural University publications
- Statistical data from published sources

In addition to collecting all above data, two case studies of best performing centres at Sirawara and Arabhavi were conducted to collect information on factors leading to the success in these centres.

5.1. Data collection and sampling

The report made use of the analysed results to reach specific conclusions on the performance of the scheme and to suggest suitable recommendations for improvement of the scheme. After the approval of the draft report, fine-tuned final report with all necessary enclosures was submitted. List of sample CHSCs for evaluation along with number of

beneficiaries covered is presented in Table 5.1 and Annexures XI to XIII. Salient features are sampling are as under:

- Random sampling of CHSCs (105)
- 35 farmers from CHSCs covering Large, Medium, Marginal and Small, SC/ST and women Farmers
- Development of questionnaires for (a) primary data, (b) focus group discussions and
 (c) in-depth information
- Primary data was collected from 35 beneficiaries and one non-beneficiary as control for each centre; focus group discussion is carried out with beneficiaries/public representatives-SHG members/progressive farmers and GP members; Focus Group discussion was arranged in 20 selected centres, two centres were selected from each agro-climatic zone, in-depth information has been collected from the managers of 105 CHSCs covering all the service providers.
- In-depth information was restricted to selected 105 CHSCs
- Model CHSCs at Sirawara and Arabhavi are also be covered to collect the reasons for success of these centres and model practices adopted by them.
- Collection of secondary information from various departmental sources
- Transmission of data to Plus Trust instantly after collection
- Tabulation, consolidation and data entry in required format by secretarial staff
- Statistical analysis, tangible conclusions and establishment of correlations
- The statistical design adopted for the evaluation was ex-post facto research design to document and analyse the services and their impact
- Interpretation and discussion of analysed data and unbiased conclusions are drawn based on the objectives of evaluation using specific quantifiable indicators
- Identification of constraints of the scheme and suggestions for corrective steps
- Preparation and submission of final report with necessary graphs and photographs along with recommendations

Focus group discussion (FGD) is conducted in 20 randomly selected CHSCs representing two per Zone as per the ToR

Table 5.1: Zone-wise sample CHSCs and farmers

Zone	District	Agency	No. of CHSCs	No. of Beneficiary farmers	No. of Control farmers
NETZ	Bidar	ISAP	1	35	1
	Kalaburagi	M & M	2	70	2
NETZ	Total		3	105	3
NEDZ	Kalaburagi	ISAP	1	35	1
	Kalaburagi	M & M	4	140	4
	Yadgir	ISAP	1	35	1
	Yadgir	M & M	2	70	2
	Raichur	MM	1	35	1
	Raichur	SKDRD	1	35	1
NEDZ Total		10	350	10	
NDZ	Bagalakote	JOHN	1	35	1
	Bagalakote	SKDRD	1	35	1
	Davanagere	JOHN	1	35	1
	Ballari	MM	3	105	3
	Ballari	SKDRD	2	70	2
	Koppala	MM	2	70	2
	Koppala	SKDRD	1	35	1
	Vijayapura	KALA	2	70	2
	Raichur	MM	2	70	2
	Raichur	SKDRD	1	35	1
	Belagavi	SKDRD	1	35	1
	Belagavi	VST	1	35	1
	Dharwad	SKDRD	1	35	1
	Gadag	John	2	70	2
NDZ T	otal	•	21	735	21
CDZ	Davanagere	JOHN	1	35	1
	Chitradurga	VST	2	70	2
	Chitradurga	SKDRD	1	35	1
	Hassan	SKDRD	1	35	1
	Tumakuru	SKDRD	1	35	1
	Tumakuru	VST	2	70	2
CDZ T	otal		8	280	8

Table 5.1 Contd...

Zone	District	Agency	No. of CHSCs	No. of Beneficiary farmers	No. of Control farmers
EDZ	Kolar	JOHN	4	140	4
	Kolar	VST	1	35	1
	Kolar	SKDRD	2	70	2
	Bengaluru Rural	SKDRD	1	35	1
	Bengaluru Rural	VST	1	35	1
	Bengaluru		1	35	1
	Urban	VST	1		
	Chikkaballapura	SKDRD	2	70	2
	Chikkaballapura	VST	2	70	2
	Ramanagara	SKDRD	1	35	1
	Tumakuru	SKDRD	1	35	1
EDZ Total		16	560	16	
SDZ	Mysuru	MM	4	140	4
	Mysuru	SKDRD	2	70	2
	Chamarajanagara	SKDRD	2	70	2
	Hassan	SKDRD	1	35	1
	Mandya	SKDRD	2	70	2
	Mandya	VST	4	140	4
	Tumakuru	SKDRD	1	35	1
	Tumakuru	VST	1	35	1
SDZ T	Cotal	1	17	595	17
STZ	Davanagere	JOHN	1	35	1
	Shivamogga	JOHN	1	35	1
	Shivamogga	SKDRD	1	35	1
	Mysuru	MM	4	140	4
	Chikkamagaluru	SKDRD	1	35	1
	Hassan	SKDRD	2	70	2
STZ T	STZ Total		10	350	10
NTZ	Dharwad	JOHN	1	35	1
	Dharwad	SKDRD	1	35	1
	Belagavi	SKDRD	3	105	3
	Haveri	SKDRD	1	35	1
NTZ	Total	•	6	210	6

Table 5.1 Contd...

Zone	District	Agency	No. of CHSCs	No. of Beneficiary farmers	No. of Control farmers
HZ	U.Kannada	JOHN	1	35	1
	Belagavi	SKDRD	1	35	1
	Chikkamagaluru	SKDRD	1	35	1
	Dharwad	SKDRD	1	35	1
	Hassan	SKDRD	1	35	1
	Haveri	SKDRD	1	35	1
	Kodagu	SKDRD	1	35	1
	Shivamogga	SKDRD	1	35	1
HZ To	otal		8	280	8
CZ	D.Kannada	SKDRD	2	70	2
	D.Kannada	VST	1	35	1
	U.Kannada	SKDRD	1	35	1
	Udupi	SKDRD	1	35	1
	Udupi	VST	1	35	1
CZ To	otal	1	6	210	6
Grand	l Total		105	3675	105

Data collection tools

- 1. Structured interview of questions for collection of primary data from beneficiaries
- 2. Structured schedule of questions (questionnaires) for collection of In-depth information (IDI) from service providers and Department Officers.
- 3. Check list of questions to be used for focus group discussions
- 4. Published data from Agricultural Universities and other State Govt. Offices

5.2 Application of Log frame and theory of change to the present context

Timely availability of quality hi-tech machines/ equipment to small and marginal farmers will improve the crop productivity besides, mitigating the labour shortage at times of peak requirement.

The small and marginal farmers, having inadequate investment capacity, are unable to purchase hi tech machines/ equipment. At the same time, timely farm operations need human labours, who are either not available in the peak requirement period or costly when available. The small and marginal farmers cannot afford them. Traditional approach of farm operations using bullocks is slow and costly due to non-availability of bullocks. In these circumstances, small and marginal farmers are likely to either incur higher cost of cultivation or likely to reduce their crop productivity- in either case dwindle their net incomes.

The theory of change

The solution to these constraints to small and marginal farmers to improve their crop productivity found if hi-tech labour savings machines/ equipment are made available to them, as and when needed, at affordable rate through custom hiring services. Attending to these farm operations in time will help conserving the soil moisture, facilitate the farmers to take up land preparation /sowing/ planting/ harvesting operations in the appropriate season and therefore help to increase the crop productivity. The socio-economic change brought about by providing hi-tech machineries/equipment through CHSCs established till 2016-17 in Karnataka is summarized as below (Fig 5.1) based on study of 105 sample CHSCs.

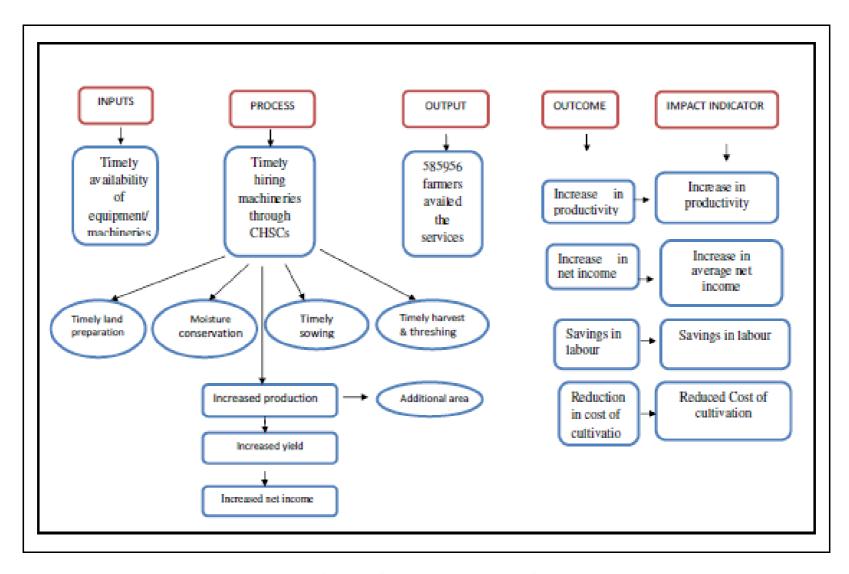


Fig 5.1: Inputs, Process, Output, Outcome and Impact (from 2014-15 to 2016-17)

5.3 Data analysis - tools and techniques

The entire data collection mechanism was adopted by following accepted principles of statistical parameters and the data analysis was carried out by the methods like tabular analysis (%, mean and ratio), t-tests for selected parameters, and establishment of meaningful correlations. Step-wise process of evaluation is presented below:

- Tabulation of raw data in excel format by codifying all the data collected
- Objective wise data extraction of selected parameters was made by multi-layer sorting and tabulation
- Analysis of tabular data by percentage, mean, standard deviation and ratios
- Comparative analysis across service providers, agro-climatic zones and across districts
- Net income was arrived in different crops considering the cost of cultivation as arrived by cost of cultivation scheme of University of Agricultural Sciences (2019) as well as gross income based on ruling market prices and the productivity
 Gross income (Rs)/acre = Productivity (Qt)/acre X prevailing market rate (Rs/qt)
 Net income (Rs)/acre = Gross income (Rs)/acre-Cost of cultivation (Rs)/acre
- Benefit: cost ratio (B:C ratio) was calculated considering net income per acre and cost of cultivation of concerned crop per acre
- T-test for yield improvement of selected crops due to farm mechanisation
- Correlation analysis for selected parameters
- Profit and loss analysis of sampled CHSCs was made considering gross revenue and variable cost of 2016-17, without considering depreciation of capital expenditure.
 Based on this, the centres were classified as profit making or loss making centres

5.4 Limitations and constraints

Krishi Yantra Dhare scheme was implemented for a period from 2014-15 to 2016-17 with laudable objectives like improving the agricultural production through achieving timeliness of farm operation, improved moisture conservation, reducing post-harvest losses and increasing affordability to mechanise the farm operations through custom hiring of costly high-tech farm equipment and machineries. The scheme is continued till date. But, an evaluation of the effectiveness of the scheme and proper utilization of Government incentives to establish CHSCs was necessary. For this purpose, a systematic and scientific evaluation of

Krishi Yantra Dhare for the period from 2014-15 to 2016-17 was commissioned by Karnataka Evaluation Authority in 2019. This task was awarded to Plus Trust, Bengaluru.

The entire evaluation was meticulously planned including carefully designed questionnaires, testing them under field conditions and exhaustive coverage of sample beneficiaries (3750 beneficiaries out of 408246 covering nearly 1% beneficiaries) and CHSCs (105 centres covered out of 335 centres- 31.3 % coverage). The evaluation adopted well established statistical procedures to analyse the data and arrive at practically implementable conclusions. Primary data were collected for the past years and hence recall limitations persists. However, all efforts were made to collect factual information during the interviewing process.

Data collection constraints

i. Delay in data collection due to natural disaster of unprecedented floods in more than 15 districts of northern and western parts of Karnataka.

Methodology constraints

- ii. The improvement of crop yield is a result of multiple combination of many independent variables. However, in the present evaluation, the yield improvement through farm machinery has been mandated ignoring the impact of all other factors like rainfall, fertilizers used, availability of irrigation, level of management, as well as pests and diseases reported. Ideally, the effect on yield should have been ignored in the present study, as it is indeed difficult to segregate the effect of farm machinery alone from effect of other factors, considering that data were collected from 3750 farmers, during 2014-15, 2015-16 and 2016-17 depending on past data.
- iii. The social evaluation on justice to the weaker section (MF/SF/SC/ST/OBC/Women farmers) to offer hire services and its impact on agricultural production was not possible, as the service was not offered on priority to these groups. However, some efforts to extrapolate the results on multiple parameters was certainly made to arrive at benefits obtained by these categories of farmers.
- Some centres are not managed by service providers directly but given on lease or iv. franchisee basis to many private players. This is especially witnessed where

Evaluation of Krishi Yantra Dhare (Farm Machinery Custom Hire Service Centre) Scheme in Karnataka

service providers happen to be machinery manufacturers. These private players have not maintained their records properly and have not bothered to hire permanent driver, ultimately affecting the quality of service.

6. IN-DEPTH INTERVIEWS WITH MANAGERS OF CHSCs AND SERVICE PROVIDERS

As per Terms of Reference of 'Evaluation of Krishi Yantra Dhare', it was necessary to conduct 110 IDIs (In-depth Interviews). Out of these, 105 IDIs were conducted at each of sample CHSCs using the approved templates. Remaining five IDIs were conducted at state level in the following manner.

- A meeting of all service providers was conducted under the Chairmanship of Director of Agriculture to discuss the process of evaluation of Krishi Yantra Dhare scheme on 15.10.2019, wherein representatives from SKDRDP, John Deer, Mahindra & Mahindra, VST tillers, ISAP and Kala as well as representative from KEA, Sri S. Dinesha attended the meeting along with scientists from Plus Trust. In depth discussions on various aspects of evaluation were discussed. Dr T.K.Prabhakara Setty, President of the Plus Trust, presented in detail about the evaluation activities taken up already, wherein, the field enumerators have visited all 105 CHSCs and collected information as per approved templates. Further, the basic information from 3850 farmers was also collected. The enormous data were tabulated and statistical analysis is done. The cooperation extended by all centres and all service providers was gratefully acknowledged. Subsequently, detailed discussions were organized separately to elicit various positive impact points, bottlenecks and measures to improve the scheme.
- Accordingly, separate meetings were conducted at Plus Trust office with service ii. providers on different dates. The details are furnished below.
- iii. A meeting was organised with Sri Virupakshappa Sankadal of John Deer on 22.10.2019 and detailed interaction was made to know the problems of service providers in rendering the service and running of CHSCs. He also suggested many strategies for improvement of scheme for future, to run CHSCs on sustainable and economically viable mode.
- iv. Another meeting was conducted between Sri Srinath of Mahindra & Mahindra and scientists of Plus Trust on 24.10.2019 to have detailed interaction on various aspects of running CHSCs, including constraints and suggestions for improvement
- One more meeting was conducted on 24.10.2019 at Plus Trust office, wherein v. scientists from Plus Trust and Sri Jaipal Reddy of VST Tillers interacted in detail

- about the performance and working constraints of CHSCs. He also made some good suggestions for improving and remodelling the existing CHSCs
- vi. A meeting was also conducted with Sri Abraham of SKDRDP on 21.10.2019, wherein scientists from Plus Trust had an opportunity to interact with him in detail about shortcomings of present scheme, methods to revitalise/ remodel the existing scheme and various practical constraints in running CHSCs under their control.

6.1 Findings of In-depth interviews with Managers of CHSCs

The information from 105 CHSCs in the approved format of IDI was analysed and used in objective-wise presentation of results of the study. The information gathered in the remaining 5 IDIs was consolidated as common findings among all the service providers. These findings are listed below:

- i. None of the service providers would like to continue to sponsor and run CHSC beyond contractual period, because all of them are incurring huge losses in the course of their running CHSCs. They are also critical about certain issues related to Department of Agriculture in respect of release of subsidy, purchase of equipment, agreement terms etc.
- ii. It is not made clear to the service providers, whether the ownership of machineries/ equipment purchased by using subsidy will be transferred to service providers or not beyond contractual period, which is six years from the date of agreement as ascertained from the Department of Agriculture. In the absence of this, these service providers are not motivated to maintain the machineries and equipment effectively in good condition for long term use.
- iii. In most CHSCs run by them, service providers are not assured of sufficient demand throughout the year, affecting the performance of CHSCs in more than one way. The inconsistent demand for machineries/ equipment is due to reasons like absence of double cropping, inconsistent/ unpredictable rains, poor quality of equipment provided to them etc., based on the opinion expressed by managers of CHSCs.
- iv. Most CHSCs are not working with profit, except a few, even after 3-4 years of working, considering working expenditures, as the hire rates fixed by the Department through DIC are not revised regularly based on changing costs. If depreciation on capital expenditure is considered, all the centres would show accumulated losses over years.

- v. The service providers are not allowed to move the equipment / machineries of one centre to other centre, whenever there is difference in demand between these centres in respect to specific machine/ equipment. The contract exists between the service provider and the department.
- vi. Although service providers are expected to offer their services in all the villages under their jurisdiction, farmers in villages near to CHSC are provided with free transport of machine/ equipment, while farmers more than 5 Km are charged with Rs.10-12/Km. This is one of the reasons for low coverage of service area as well as low penetration.
- vii. All the service providers face the problems of managing the off-season period, which extends from 3 to 8 months in different situations depending on the cropping pattern. Maintenance expenses of staff, shop rent, electricity will mount during this period leading to accumulated losses. Including SKDRDP, none of the service providers has concrete plan to deal with problems of 'off season' period.

6.2 Suggestions from In-depth interviews with Managers of CHSCs

During the meetings with service providers, some common suggestions were made by them to continue Krishi Yantra Dhare in future years more effectively to offer better service to the farming community. They are:

- i. The ownership of different machines and equipment purchased by service providers with subsidy must be transferred to them after contract period. To this effect, the agreement between service providers and Government (Department of Agriculture) should clearly indicate the method of such transfer.
- ii. Subsidy for purchase of new machines/ equipment at the rate of 75:25 should continue not only for initial purchase but also subsequent purchases, which is pegged at 50:50 at present. In this regard, disparity between I slab centres and II slab centres should be rectified.
- iii. The District Implements Committee should consider the suggestions of CHSC to include the machines/ equipment required at CHSC based on the local survey and they have to revise the hiring rates strictly once in six months to ensure profitable running of CHSC.
- iv. More liberty should be given to the CHSC to shift the machines/ equipment from one centre to other depending on the need and difference in demand between two centres.

- This will ensure that machines/ equipment are put to more intensive use and generate more revenue besides, covering more farmers
- v. Presently, the Department of Agriculture issues the supply order for the machineries and the equipment approved by DIC. Based on the supply order, the machineries will be delivered to the concerned CHSCs. This has resulted in poor after-sale service. Hence, the service provider's request for purchasing the approved equipment from the empanelled suppliers directly needs to be permitted.
- vi. Mandatory revision of hire charges every 6 months is necessary based on scientific analysis of fuel rates and depreciation, to maintain CHSC on profitable basis, as some of present rates remain unchanged for last 2-3 years.
- vii. A provision could be made to reimburse the repair charges and manpower salaries of CHSC at least on partial basis.
- viii. Recent opinions of administrators to many service providers have suggested that service providers will have to continue offering the service to the farmers even if they are making losses, as they need to consider CHSCs as service centres than profit-earning centres. Considering this opinion of the department, the service provider's request for enhancing the subsidy to 90% and provide ownership of the machinery after the 6 years of contract period needs to be permitted.
 - ix. New equipment like tree climber, laser leveller, boom sprayers and combine harvesters should be encouraged to be stocked by including them in the approved list of machines of DIC.
 - x. Based on the opinion of service provider, selection of centres should be based on potential of the area (area under irrigation, crops grown and double cropped area) and convenience of the farmers. Preferably, opening of centre should be allowed only by a thorough technical evaluation of the area/beneficiaries by an independent agency.
 - xi. The equipment/machinery which are not been used for a longer period could be disposed off as early as possible, to reduce the burden of depreciation and also spoilage due to rusting.
- xii. The CHSCs are selected by Dept. of Agriculture based on farming population, area under cultivation, types of farm machinery needed, cropping pattern etc., but; these centres could be selected based on rainfall pattern, availability of irrigation, soil type and cropping pattern.

7. PROFITABILITY OF CHSCs

Profits and losses of CHSCs *7.1*

Out of different sample 105 centres, 49 centres (46 of SKDRDP and 3 of ISAP) commenced their hiring operations during 2015-16 and the remaining 56 centres (24 of M & 16 of VST, 14 of John Deer and 2 centres of Kala Chetana) commenced their operations 2016-17. The balance sheets of 2016-17 were compiled for the purpose of comparison across different zones as follows (Table 7.1):

Table 7.1: Service provider-wise balance sheets indicating revenue and expenditure (variable costs) for 2016-17

		(variable	costs) 101 2010-17	,				
Sl. No.	Service provider	Centre	Revenue (Income from hiring-out) (Rs. in lakh)	Expenditure (Operating costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)			
SLAB	SLAB I							
1	SKDRDP	Thyamagondlu	19.75	22.30	-2.55			
2	SKDRDP	Doddamaralawadi	9.59	17.45	-7.86			
3	SKDRDP	Bethamangala	27.96	32.09	-4.13			
4	SKDRDP	Mandikal	24.30	29.62	-5.32			
5	SKDRDP	Hebburu	15.42	16.73	-1.31			
6	SKDRDP	Jajur (Arasikere)	14.20	18.42	-4.22			
7	SKDRDP	Belagodu	13.61	17.21	-3.60			
8	SKDRDP	Dudda	28.17	30.82	-2.65			
9	SKDRDP	Halekote	17.33	19.97	-2.64			
10	SKDRDP	Palya	20.38	21.48	-1.10			
11	SKDRDP	Haradanahalli	24.87	31.08	-6.21			
12	SKDRDP	Agara	19.14	19.48	-0.34			
13	SKDRDP	Aathaguru	17.09	22.32	-5.23			
14	SKDRDP	Basaralu	13.40	17.33	-3.93			
15	SKDRDP	Anandapura	14.66	19.77	-5.11			
16	SKDRDP	Kudligere (Veerapura)	20.21	21.73	-1.52			
17	SKDRDP	Bhagamandala	6.69	9.00	-2.31			
18	SKDRDP	Ajjampura	21.17	24.88	-3.71			
19	SKDRDP	Ambale	18.82	20.67	-1.85			
20	SKDRDP	Panja	12.76	16.39	-3.63			
21	SKDRDP	Uppinangadi	13.96	17.37	-3.41			
22	SKDRDP	Byndoor	14.61	17.59	-2.98			

Table 7.1 Contd...

Sl. No.	Service provider	Centre	Revenue (Income from hiring out) (Rs. in lakh)	Expenditure (Operating costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)	
23	SKDRDP	Balale	6.63	13.64	-7.01	
24	SKDRDP	Mathodu	22.30	25.96	-3.66	
25	SKDRDP	Jamboot	24.43	28.62	-4.19	
26	SKDRDP	Yaksamba	18.68	20.92	-2.24	
27	SKDRDP	Dhumavada	31.23	35.35	-4.12	
28	SKDRDP	Guledguda	12.90	17.50	-4.60	
29	SKDRDP	Kitturu	25.21	29.11	-3.90	
30	SKDRDP	Badarli	18.84	19.66	-0.82	
31	SKDRDP	Chandrabanda	15.64	19.34	-3.70	
32	SKDRDP	Masti	26.32	26.90	-0.58	
33	SKDRDP	Kaginele	30.28	30.96	-0.68	
34	SKDRDP	Varuna	18.32	20.35	-2.03	
35	SKDRDP	Bannur	25.13	27.27	-2.14	
36	SKDRDP	Hirebagewadi	57.52	52.30	5.22	
37	SKDRDP	Alnawara	36.76	35.19	1.57	
38	SKDRDP	Hosur	17.81	16.87	0.94	
39	SKDRDP	Amruthuru	35.89	30.89	5.00	
40	SKDRDP	Kodigenahalli	24.90	23.10	1.80	
41	SKDRDP	Akki aluru	41.18	36.99	4.19	
42	SKDRDP	Kagawada	26.32	26.31	0.01	
43	SKDRDP	Annigeri	36.76	34.47	2.29	
44	SKDRDP	Hulihyder	13.53	12.09	1.44	
45	SKDRDP	Hampasagara	42.40	39.16	3.24	
46	SKDRDP	Kamalapura	26.02	25.23	0.79	
1	ISAP	Aathanur	5.03	5.3	-0.27	
2	ISAP	Santapur(Kamala nagar)	5.36	6.58	-1.22	
3	ISAP	Doranahalli	10.33	11.13	-0.80	
SLAI	B I TOTAL		1043.81	1134.89	-91.08	
SLAB II						
1	M & M	Chikkayanachatra	2.87	4.66	-1.79	
2	M & M	Gowdagere	7.69	9.93	-2.24	
3	M & M	Hampapura	2.26	7.22	-4.96	
4	M & M	Hulihalla	7.35	10.05	-2.70	
5	M & M	Hunsur	6.62	10.33	-3.71	
6	M & M	Ilwala	3.14	7.96	-4.82	
7	M & M	Jayapura	3.76	8.35	-4.59	

Table 7.1 Contd...

Sl. No.	Service provider	Centre	Revenue (Income from hiring out) (Rs. in lakh)	Expenditure (Operating costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)
8	M & M	Kandalike	3.55	9.48	-5.93
9	M & M	Gogi	0.9	1.51	-0.61
10	M & M	Chittapur	3.79	4.88	-1.09
11	M & M	Pattana	6.1	6.33	-0.23
12	M & M	Adiki	3.71	4.1	-0.39
13	M & M	Narona	4.59	4.96	-0.37
14	M & M	Gillesugur	2.04	5.22	-3.18
15	M & M	Balaganur	2.2	3.93	-1.73
16	M & M	Gudaduru	2.2	3.92	-1.72
17	M & M	Kampli	4.6	6.28	-1.68
18	M & M	Moka	2.05	4.53	-2.48
19	M & M	Toranagallu	2.06	3.54	-1.48
20	M & M	Hitnal	10.04	11.92	-1.88
21	M & M	Kanakagiri	2.19	2.33	-0.14
22	M & M	Hunasigi	2.36	2.22	0.14
23	M & M	Farhatabad	6.54	6.28	0.26
24	M & M	Nimbarga	8.46	8.1	0.36
1	VST	Cheenya	1.93	4.63	-2.70
2	VST	Halagur	3.46	5.55	-2.09
3	VST	Khangoan	4.23	4.67	-0.44
4	VST	Nayakanahatti	2.67	2.9	-0.23
5	VST	Hangal	3.53	3.69	-0.16
6	VST	Machahalli (Gudibande)	4.06	4.2	-0.14
7	VST	D.Palya	4.01	4.75	-0.74
8	VST	Attibele	0.95	1.5	-0.55
9	VST	Koppa	3.59	2.62	0.97
10	VST	Kothathi	5.00	4.21	0.79
11	VST	Holavanahalli	4.38	3.35	1.03
12	VST	Y.N.Hosakote	6.52	5.1	1.42
13	VST	Yediyur	2.46	1.93	0.53
14	VST	Kundapura	5.38	4.45	0.93
15	VST	Uppinangadi (Kadaba)	4.69	2.23	2.46
16	VST	Sasulu	3.22	1.55	1.67
1	John Deer	Avani	5.74	8.39	-2.65
2	John Deer	Dalasanur	9.00	10.72	-1.72
3	John Deer	Kyasamballi	7.47	9.4	-1.93

Table 7.1 Contd...

Sl. No.	Service provider	Centre	Revenue (Income from hiring out) (Rs. in lakh)	Expenditure (Operating costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)
4	John Deer	Lakkur	2.63	5.96	-3.33
5	John Deer	Narasapura	8.45	10.21	-1.76
6	John Deer	Govinkovi	3.09	3.16	-0.07
7	John Deer	Mundargi	6.42	7.01	-0.59
8	John Deer	Mulagund	1.78	2.64	-0.86
9	John Deer	Kumsi	2.75	1.94	0.81
10	John Deer	Sirsi	1.68	1.00	0.68
11	John Deer	Mudhol	0.58	0.42	0.16
12	John Deer	Telelgi	6.24	2.65	3.59
13	John Deer	Hosakere (Sokke)	2.35	2.01	0.34
14	John Deer	Aminbhavi	3.31	2.53	0.78
1	KALA	Huvinahipparagi	0.88	1.08	-0.20
2	KALA	Mamdapura	0.53	0.39	0.14
SLAB II TOTAL			224.05	274.87	-50.82

Source: Annual progress reports submitted by service providers to the Director of Agriculture

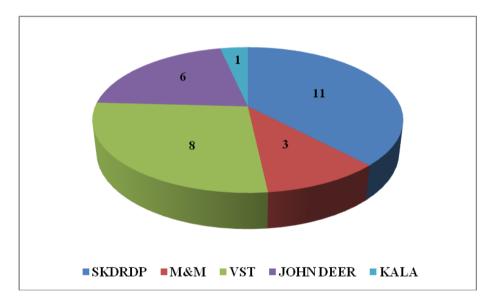


Fig 7.1: Service provider-wise Profit making CHSCs

Although 35 centres of SKDRDP, 21 centres of M & M, 8 centres of VST tillers, 8 centres of John Deer, 1 centre of Kala Chetana and 3 centres of ISAP (totally 76 centres out of 105) are making losses as on 30.3.2017, all of them will have to continue to offer their

services, as they are under agreement with the Department of Agriculture to offer the service for 6 years from the date of agreement.

7.2 Classification of CHSCs by profit and loss

Out of 105 sample CHSCs across the State, 76 centres are reported to have incurred loss during 2016-17, while the remaining 29 centres have reported profit. Out of 29 profit making CHSCs, 8 belong to VST, 6 to John Deere, 11 to SKDRDP and 3 to M & M. One out of two centres of Kala Chethana is making profit (Table 7.2, Fig 7.1). Out of 29 profit making centres, only 4 of them have made profit of more than Rs 2 lakh during 2016-17. The losses incurred by different CHSCs varied from Rs. 0.07 lakh (CHSC, Govinkovi in zone 7) to Rs.8.42 lakh (CHSC, Balale in zone 10), while the profits earned by CHSCs varied from Rs.0.06lakh (CHSC, Kaginele in zone 8) to Rs.9.56 lakh (CHSC, Alnavar in zone 8). The reasons for profitability included good maintenance of machinery/equipment, better coverage of the farmers in jurisdictional area, spread of the demand for longer period and better awareness of the farming community about CHSC.

Table 7.2: Abstract of profit making CHSCs (excluding depreciation)

Sl.No.	Service provider	provider Centre hirir (Rs. i		Expenditure (Variable costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)
1	SKDRD	11	359.09	332.60	26.49
2	M & M	3	17.36	16.6	0.76
3	KALA	1	0.53	0.39	0.14
4	VST	8	35.24	25.44	9.80
5	John Deer	6	16.91	10.55	6.36
	Total	29	429.13	385.58	43.55

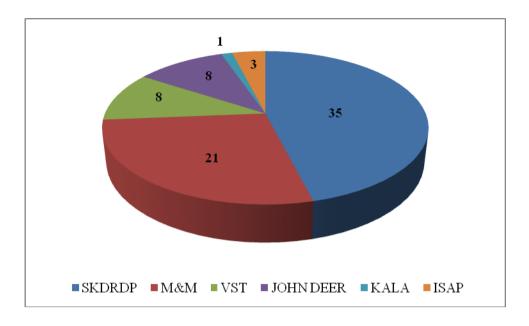


Fig 7.2: Service provider-wise Loss making CHSCs

Losses are reported by all service providers, but major share of loss-making CHSCs were the ones sponsored by SKDRDP (35 out of 76), while 21 centres of M & M were reported to have incurred the losses. VST tillers and John Deere, have reported 8 each of their centres to have incurred losses and Kala Chetana and ISAP have 1 and 3 of their centres under losses, respectively (Table 7.3 & Fig. 7.2)

Table 7.3: Abstract of loss making CHSCs (excluding depreciation)

Sl.No.	Service provider	No. of Centre	Revenue (Income from hiring out) (Rs. in lakh)	Expenditure (Variable costs) (Rs. in lakh)	Profit/Loss (Rs. in lakh)
1	SKDRD	35	664.00	779.28	-115.28
2	M & M	21	83.71	131.43	-47.72
3	KALA	1	0.88	1.08	-0.2
4	VST	8	24.84	31.89	-7.05
5	John Deer	8	44.58	57.49	-12.91
6	ISAP	3	20.72	23.01	-2.29
	Total	76	838.73	1024.18	-185.45

Out of 46 selected centres of SKDRDP, 35 have reported losses (76 %) and out of 24 centres of M & M, 21 have reported losses (87.5 %). Similarly, 50 % of VST selected

centres and 57% of John Deere selected centres are incurring losses. One centre of Kala Chethana and three of ISAP centres were incurring losses. Out of 76 loss making CHSCs, 26 of them have incurred losses of more than Rs 3 lakh during 2016-17.

7.3 Reasons for losses

- 1. Poor awareness of services of CHSCs among the farmers of jurisdiction area. Only 61 % farmers of the jurisdictional area have awareness of existence of CHSCs and their services
- 2. Poor coverage of jurisdictional area, the loss-making centres have not been able to cover the entire area under their jurisdiction for reasons mentioned below:
 - a. The important reason for low coverage includes the distance restrictions. The maximum distance from Centre to the farthest village is to the tune of 40 KM. The farmers located in far-off villages invariably prefer services of local suppliers than those of CHSCs due to the following reasons:
 - i. Extra levy of transportation cost at the rate of Rs.12/KM for distances above 5 KM from CHSCs, in contravention of the service provider's agreement.
 - ii. Necessity to visit the centre, 3 to 4 times to bring tractor/equipment to the farm.
 - iii. Relative disadvantage in hire rates compared to the local rates at which the machinery can be hired.
 - b. Inadequate availability of tractors/tillers: As indicated in Annexure XVII, many centres own a limited number of tractor/tillers. It is difficult to cover the entire area under the jurisdiction with a limited number of tractors and tillers which are required in peak land preparation months of June and July.
- 3. Low Hire rates: The prime reason for losses is non-revision of hire rates for a longer period, due to which the CHSCs were not able to cover the cost of hiked fuel charges, increased driver hire rates as well as depreciation, as CHSCs are providing services at a rate lower than the market rates. Therefore, they need to be compensated for loss of revenue to run the CHSCs on profitable lines. This is reflected in the proceedings of selected DIC enclosed in Annexure V.
- 4. Inadequate availability of required equipment: As indicated in Annexure XVII, the availability of required equipment was inadequate especially during the peak period.

- 5. Non-availability of adequate number of drivers: Each centre is generally provided with one permanent driver, but allowed to hire local drivers on contract basis. While the services of one permanent driver is grossly inadequate to cover the vast area, the reliability of hiring the local drivers is poor considering the wages, discontinuous hiring period and skill of the driver.
- 6. Deficiencies in infrastructure support to CHSCs: The scheme was implemented without any supporting infrastructure facilities to CHSCs. Due to seasonal nature of service, lack of infrastructure facilities, including the building to keep the machines/equipment safely and securely has affected the performance of the centre. This is one of the reasons for incurring losses.
- 7. While the reasons for profitability included good maintenance of machinery/equipment, better coverage of the farmers in the jurisdictional area, spread of the demand for longer period and better awareness about CHSC among the farming community, the losses were due to various reasons like deficiency in infrastructure, non-availability of drivers/required equipment, non-revision of hire rates, poor coverage and poor awareness among farmers.

8. RESULTS AND DISCUSSION

The results and discussion are presented in the following sections as per the objectives of the impact evaluation study on Krishi Yantra Dhare Scheme.

8.1 Awareness about the scheme among marginal and small farmers

It is much expected that creating awareness among farmers about the benefits of custom hire service centres (CHSCs) will have an impact towards increasing production and productivity by expanding more area, change in crop and cropping pattern, reducing labour dependency to minimize the risk and reduction in cost of production through timely operation. Information on any crucial farm technologies enable stake holders to adopt required interventions. Awareness creation for better adoption of farm mechanization and effective use of farm machineries for minimizing cost of production through labour saving and improving farm income is much desired.

During discussions with the officers of Department of Agriculture and managers of CHSCs, it was ascertained that the following activities are jointly undertaken to create awareness and publicity on benefits of use of machines and equipment provided by CHSCs.

• Krishi Abhiyana

Krishi Abhiyana (Krishi Jatra) are being conducted at each hobli level by concerned RSK well ahead of the cropping season (kharif and rabi) to give publicity regarding department programmes concerned with farmers including Krishi Yantra Dhare, availability of seeds and fertilizers along with production technologies. During this Abhiyana, exhibitions are also organised wherein stalls are put up jointly by the Department and service providers to give information to farmers regarding facilities offered by CHSCs, and details of rental charges for hiring machines and equipment to create awareness among all categories of farmers and promote modern technologies.

Demonstrations

Demonstrations are conducted jointly by RSKs and CHSCs on the farmer's field during the season to create awareness on the advantages and facility of hi-tech equipment like rotovators, seed-cum-fertilizer drill, threshers and combined harvesters.

During the focus group discussion (FGD), it was revealed that service providers conducted publicity campaigns to create awareness among farmers regarding the benefits of

that the farmers accessed farm-related information including CHSC through village wall posters, mass media (TV), newspapers and word of the mouth dissemination of information among the farmers.

Awareness among farmers across zone ranged from 25 % (SDZ) to 95 % (NTZ). Awareness in other zones was to an extent of 50% (NEDZ), 55% (EDZ & CZ), 57% (HZ), 60 % (NETZ & CDZ). 75% (NDZ) and 82% (STZ) (table 8.1). However, the overall awareness regarding CHSC facilities in the farming community was 61% and remaining 39% were not aware of the functioning of such schemes and they were using either their own machineries or were depending on private agencies for hiring.

To reach the remaining farmers, there is need to conduct more awareness campaigns, field demonstrations, publicity through village wall posters, mass media, newspapers and local Self-Help groups (SHG) for better access to CHSC benefits.

Awareness (%) **Zone Number** Zone (n=3675)North Eastern Transition Zone 1 60 2 North Eastern Dry Zone 50 3 Northern Dry Zone 75 4 Central Dry Zone 60 Eastern Dry Zone 5 55 6 25 Southern Dry Zone 7 Southern Transition Zone 82 8 Northern Transition Zone 95

57

55 **61**

Table 8.1: Zone-wise awareness on CHSC

8.2 Reach of services to different categories of farmers

Average

During FGD and in-depth discussions with CHSC managers, it was revealed that all categories of farmers including SCs, STs and women farmers have availed the CHSC facilities. It was ascertained from CHSC managers through opinion survey that 94 % of the respondents (Managers) have reported positive opinion about offering services to different categories of farmers including SC/ST and women farmers without facing any problems.

9

10

Hilly Zone

Coastal Zone

Only 6 % of respondents experienced a few problems in extending the services to the farmers. With regard to extending the services across different villages located in the jurisdiction of CHSC, it was noted that in all 105 centres, about 3455 number of villages were benefited with an overall mean of 33 villages per CHSC. Jurisdiction of each CHSC surveyed indicated that the services have reached farmers of villages ranging from a minimum of 6 villages to a maximum of 117 villages with a mean of 33 villages per centre (Fig 8.1). Regarding the extent of distance away from CHSC hub, farmers had access to CHSC up to maximum distance of 52 kms (Fig 8.2). During discussions with CHSC managers, it was noted that services have reached to maximum farmers/villages located within 5 to 10 kms radius from CHSC. Beyond this distance, access to CHSC by farmers is low for the following reasons:

- Farmers of distant villages experienced difficulty in advance booking of required farm machinery and payment of advance due to lack of proper conveyance/transport to CHSC.
- Although CHSC could be accessed over phone, majority of the centres were reluctant to take advance booking due to non-payment of advance amount for hiring the machinery.
- Farmers/villages located beyond 10 kms from the CHSC hub, service provider insisted for payment of conveyance charges @ Rs 12/km resulting in added cost of production.

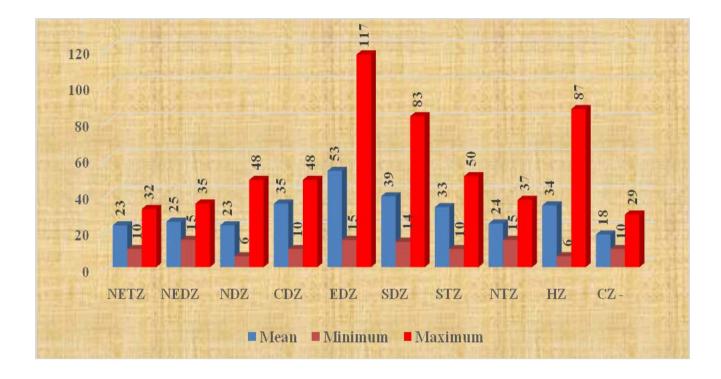


Fig 8.1: Zone-wise number of villages covered by the CHSC

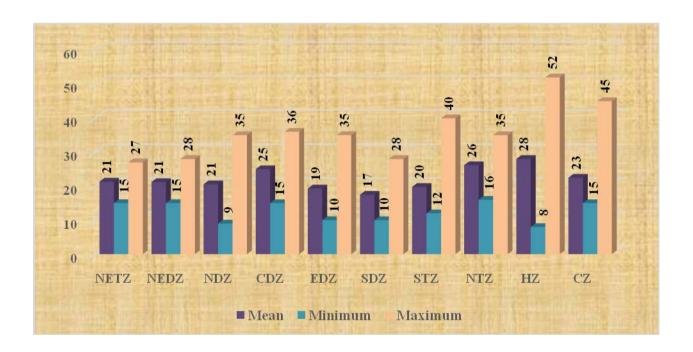


Fig 8.2: Zone-wise longest distance (km) covered by the CHSC

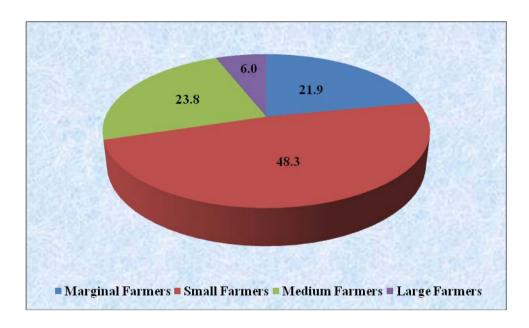


Fig 8.3: Category-wise farmers availing CHSC service (in percentage)

Interaction with the CHSC managers revealed that though all the villages in the jurisdiction the CHSC hub were covered, only a few villages between 4 and 5 kms from the centre are covered to an extent of 70 - 80 % farming community. The other villages away from CHSC are partially covered.

Among the different categories of beneficiary farmers, small farmers have availed maximum (48.3 %) followed by medium farmers (23.8 %) and marginal farmers (22 %). Only 6 % of large farmers have availed the CHSC service (Fig 8.3). Among SC/ST farmers, 13.8 % SC farmers and 11.7% ST farmers have availed the CHSC services.

8.3 Effectiveness of CHSC services to marginal and small farmers and others

Mechanisation has profound effect on productivity enhancement through facilitating timeliness and precision to agricultural operations with relatively more work output per unit of time with quality work leading to better resource utilization. Effective mechanization contributes to increased production in two major ways: firstly, timeliness of field operation and secondly good quality work. Apart from other factors, increased food production is also contributed by crop area expansion. One of the ways to bring more area under crops is enhancing more area coverage per unit time and reducing labour dependency through mechanization. Effectiveness of CHSC is also reflected through increased productivity and net returns as a result of mechanization.

Zone-wise distribution of different categories of farmers who availed CHSC service is presented in table 8.2. Among different categories across the zone, small farmers accounted for maximum (48.3 %) followed by medium farmers (23.8%), marginal farmers (21.9 %) and large farmers (6 %). Among the zones SDZ accounted for higher number of marginal farmers (25.5 %), small farmers in EDZ (16.6 %), medium farmers in NDZ (27.9% %) and large farmers in NEDZ (33.5 %).

Table 8.2: Zone-wise distribution of different categories of farmers

Zone	Marginal Farmers	Small Farmers	Medium Farmers	Large Farmers	Total
NETZ	4 (3.7)	38 (35.2)	33 (30.6)	33 (30.6)	108
NEDZ	44(12.3)	130 (36.3)	110 (30.7)	74 (20.7)	358
NDZ	109 (14.4)	334 (44.1)	244 (32.2)	71 (9.4)	758
CDZ	69 (24.0)	180 (62.5)	36 (12.5)	3 (1.0)	288
EDZ	161 (28.0)	295 (51.2)	109 (18.9)	11 (1.9)	576
SDZ	205 (33.5)	279 (45.6)	122 (19.9)	6 (1.0)	612
STZ	82 (22.8)	189 (52.5)	82 (22.8)	7 (1.9)	360
NTZ	53 (24.5)	101 (46.8)	57 (26.4)	5 (2.3)	216
HZ	48 (16.7)	175 60.8)	54 (18.8)	11(3.8)	288
CZ	30 (27.0)	55 (49.5)	26 (23.4)	0(0.0)	111
Total	805 (21.9)	1776 (48.3)	873 (23.8)	221 (6.0)	3675
Percent	21.9	48.3	23.8	6.0	

NOTE: Figures in the parenthesis indicate the percentage to the zone total.

Although, CHSC scheme is implemented to serve all categories, emphasis is given on MFs and SFs who cannot afford to own farm machineries including bullocks to carry out field operations. Owing to greater demand for farm labour, with acute scarcity during peak seasons, all the farmers irrespective of categories including marginal and small farmers have availed CHSC services. Since the services are provided on first come first serve basis with advance booking of equipment, no priority was given to MF and SF while rendering service by CHSC.

8.4 Addressing constraints in land preparation and other farm operations

The focus of this objective refers to constraints in farm operations like land preparation and inter-cultivation. These are properly addressed by use of hi- tech farm machinery/ equipment. Timeliness of farm operations, quality of land preparation and cost effectiveness of these operations are of great importance in crop production, besides, introduction of new crop (change in cropping pattern) as a result of timely operations. The main constraint in land preparation and inter-cultivation is timely operation, as moisture availability is reduced over time. Farmers can attend to these operations if good quality equipment is available to them along with tractor. These issues are governed by a number of parameters studied in the evaluation. By and large, subject to the availability of equipment/ machinery, the beneficiaries have successfully used M B ploughs, harrows and rotovators to prepare their lands timely and seed drills / transplanters to sow / plant their crops timely.

Type of operation and preference of equipment:

In direct interviews with the beneficiaries, 92 % of them have reported to have used the services of CHSC for land operation followed by 40 % farmers having used for sowing operation. In the order of preference, other operations like threshing, harvesting and plant protection were found in decreasing order in respect of use of CHSC services. Intercultivation operation was least preferred operation and drying operation was not mechanised at all by any beneficiaries. Operation like inter-cultivation is even now preferred to be attended by pair of bullocks in the standing crop, as use of tractors in standing crop is limited in India due to smaller holdings. Moreover, in crops like submerged paddy, the rows are not properly maintained due to random planting method and in such crops, row inter-cultivation by use of tractor/power tiller is totally ruled out. This observation was uniform across all the zones and all service providers.

The most preferred equipment hired by the beneficiaries indicates the type of operation attended to by them. As many as 67 % beneficiary farmers have used M.B plough mainly for land preparation and 62% farmers are using cultivator and 23 % farmers are using rotovator, all these equipment being used for land preparation (Table 8.3). This was followed by sowing operation to the tune of 47 % farmers by use of seed cum fertilizer drill and

threshing operation used by 21% farmers. Both these equipment were used along with tractor, hired from CHSC. The preferred equipment varied according to zone and service providers.

Preference of equipment, as decided by the farmers

Mould Board ploughs and cultivators required for land preparation are most hired equipment respectively recording 67 % and 62 % farmers (Table 8.3) registering their preference to them in the overall analysis. Other equipment like seed cum fertilizer drills, threshers were relatively less used than land preparation equipment. The least used equipment in all centres are plant protection equipment, as most farmers preferred to own them, due to their lower costs.

Analysis of data across the zones also indicated that mould board ploughs were used by more than 50% farmers in all the zones, highest being 83 % in zone 3 followed by zone 5, recording 79% farmers. Almost similar trend was maintained in the case of cultivator, prominent land preparation equipment, excepting zone 5 recording maximum (86 % farmers) usage of cultivators and zone 3 recording 83%. However, coastal zone recorded least use of cultivator (26% farmers). Surprisingly, even zone 6 recorded only 33% farmers using cultivators. Wide variation existed in preference to the use of seed cum fertilizer drill, mostly used for dry lands for sowing of ragi, jowar, maize, groundnut, redgram, green gram and black gram. Zones 1, 2, 3, 4 and 5 recorded more than 50% farmers using them, other zones recorded their use lesser than 50%, with least of 1% in coastal zone, where its use is almost impossible due to heavy rainfall. Surprisingly, transplanters are least preferred equipment, even in paddy growing areas, with only 2 % farmers recording their preference in the state. Maximum of 11 % and 9 % farmers preferred to use transplanters respectively in zones 9 and 10, while farmers in all other paddy growing zones like zone 6, zone 7, zone 2 zone 3 recorded least preference to use transplanters, which might be due to the fact that nursery has to be raised separately, for use of transplanters for paddy planting.

Zone-wise differences in preferences for particular equipment is more prominently governed by differences in service providers' interest in keeping a particular equipment available at CHSCs than by farmers' choice. Even though KALA covered only 71 farmers out of 3570 farmers, 96 % of their farmers used M B ploughs and 94 % of their farmers used cultivators. All the service providers' common feature was that more than 65% of the farmers used M B ploughs except ISAP with 46%, which recorded 91 % of its farmers using seed-cum-fertilizer drill surpassing all other service providers.

The survey to collect primary information from managers of 105 selected CHSCs indicated that mould board plough is more frequently hired out than any other equipment.

Based on analysis of data on constraints of land preparation, inter-cultivation and other operations, it may be concluded that service of CHSCs addressed more preferentially the land preparation, sowing and threshing operations than inter-cultivation, weeding, harvesting and transplanting operations. The failure to address some of them is not only due to inability of CHSCs in keeping adequate number of such equipment but also due to some operations not being preferred to be mechanised, because of practical inconvenience. For example, harvesting of jowar, ragi, cotton and redgram requires different types of machines and many of them are not available at all, while multi-crop thresher can handle threshing operations of most grain crops. Under some Indian situations use of tractors in between grown crops is impractical due to smaller plot size and irregularity of planting rows. Hence, inter-cultivation is not properly addressed. But most farmers would have preferred equipment like power weeder, if adequate number of such equipment are stocked in CHSCs. But, most CHSCs have not stocked adequate number of power weeders. Many plant protection equipment are not used in most CHSCs, as most farmers own them. Stocking them could be avoided in future years.

Table 8.3: Zone-wise use of farm machineries

Zone	Total No.	MB	P	Rotov	otovator Cultivator S		Seed cum F	ert drill	Trans	splanter	Multi crop thresher		Thres	sher	Combine	Combined harvester	
Zonc	Farmers	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
NETZ	105	77	73	0	0	81	77	102	97	0	0	30	29	56	53	0	0
NEDZ	350	184	53	60	17	269	77	245	70	1	0	68	19	100	29	1	0.3
NDZ	736	613	83	248	34	610	83	516	70	0	0	133	18	152	21	0	0
CDZ	281	158	56	12	4	134	48	142	51	0	0	17	6	72	26	0	0
EDZ	557	438	79	128	23	479	86	366	66	0	0	159	29	149	27	0	0
SDZ	595	341	57	155	26	195	33	85	14	2	0	32	5	71	12	1	0.3
STZ	350	232	66	67	19	190	54	91	26	25	7	0	0	72	21	0	0
NTZ	211	135	64	90	43	114	54	100	47	0	0	60	28	28	13	0	0
HZ	280	192	69	80	29	159	57	78	28	32	11	61	22	63	23	0	0
CZ	210	105	50	11	5	54	26	2	1	18	9	25	12	19	9	0	0
Total	3675	2475	67	851	23	2285	62	1727	47	78	2	585	16	782	21	2	0.1

Machine-wise demand and supply

Custom hire services in the 105 sample CHSCs were made available to the beneficiaries with different machineries like tractors and power tillers of various capacities along with the equipment matching with the requirement of different farm operations. Scientific demand analysis was not carried out by CHSC to quantify the demand for machinery. However, machine-wise supply in different zones are presented in Table 8.4. Although demand is not assessed, waiting period to avail the services of machineries was rather long and many farmers had to wait for their turn to avail the services.

Table 8.4: Machine - wise utilization of farm machinery by sample CHSCs in different zones (hrs used/ CHSC)

		,	Tractors		1	Power t	illers		Thres	hers
Zone	No*	Hrs	Area(ac) covered/ tractor	Hr.use/ household	No*	Hrs	Hr. use/ household	No*	Hrs	Hr.Use/ household
NETZ	105	2229	1115	21.2	0	0	0	56	887	15.8
NEDZ	350	6929	3465	19.8	11	4	0.4	10	593	5.9
NDZ	730	10343	5172	14.2	37	159	4.3	152	788	5.2
CDZ	277	1689	845	6.1	149	542	3.6	72	340	4.7
SEDZ	553	4409	2205	8.0	137	511	3.7	149	374	2.5
SDZ	563	3691	1846	6.6	107	548	5.1	71	216	3.0
STZ	345	2594	1297	7.5	27	138	5.1	72	252	3.5
NTZ	210	5164	2582	24.6	68	360	5.3	29	185	6.4
HZ	266	3867	1934	14.5	66	315	4.8	63	248	3.9
CZ	202	1465	733	7.3	40	180	4.5	19	81	4.3
Total (All zones)	3601	42380	21194	129.8	642	2757	36.8	693	3964	55.2

^{*:} Number of households, Life of tractors = 7 years; life of power tillers/thresher = 5 years

The service of tractors was more intensively availed in NDZ (10343 hours in zone 3), as this zone is bigger geographically than other zones besides large area under paddy cultivation requiring the intensified use of tractors for land preparation. Second highest user of tractors was recorded NEDZ (6929 hours in zone 2), as large portion of the zone is irrigated and main crop in NEDZ is paddy. The use of tractors was relatively lesser in other zones, depending on geographical area, extent of irrigation and the type of the crop. Least use of tractors was recorded in CZ- zone 10 (1465 hours), because of smaller holdings and

limited area under cultivation. Even in NETZ (zone 1) the tractors were less intensively used (2229 hours) because the zone predominantly grows pulses, which require minimal land preparation. The use of power tiller is relatively lesser in all the zones as compared to tractors. Large usage of power tillers was recorded in CDZ (542 hours in zone 4), SEDZ (511 hours in zone 5) and SDZ (548 hours in zone 6, mainly due to larger share of smaller holdings than northern zones. But, in NETZ (zone 1) and NDZ (zone 2) limited number tillers were used, as the service provider has either not stocked more power tillers due to pulse based cropping system. Threshers are mainly used to carry out threshing of cereals and pulses. The use of threshers was maximum in NETZ (887 hours), followed by NDZ -zone 3 (788 hours), with least use recorded in CZ (81 hours). The intensity of use of threshers is more related to the awareness to use threshers for threshing operation as well as number threshers available in different CHSCs. Even when the demand for thresher is more in a short span of harvesting season, the use of threshers may be limited due to non-availability of adequate number of threshers in the centre.

The ability of CHSC to provide the services was decided by number of machines available with them than potential demand. The number of machines available with different CHSC is indicated in Annexure XVII representing 10 selected CHSC @ one centre per zone.

Equipment-wise demand and supply

Scientific demand analysis was not carried out by CHSC to quantify the demand for equipment also. However, equipment - wise hiring in different zones are presented in Table 8.5. Although demand is not assessed, waiting period to avail the services for equipment was more than the supply and many farmers had to wait for their turn to avail the services.

Table 8.5: Equipment - wise supply by sample CHSCs in different zones (hrs used/ CHSC)

	Mould	board p	lough		Rotova	tor		Cultivato	or	Seed	Seed cum ferti drill		
Zone	No*	Hrs	Use/ farmer	No*	Hrs	Use/ farmer	No*	Hrs	Use/ farmer	No*	Hrs	Use/ farmer	
NETZ	77	999	13.0	0	0	0.0	81	1037	12.8	102	1348	13.2	
NEDZ	184	1341	7.3	60	267	4.5	269	2212	8.2	245	1613	6.6	
NDZ	613	2967	4.8	248	1338	5.4	610	3325	5.5	516	2034	3.9	
CDZ	158	660	4.2	12	57	4.8	134	484	3.6	142	466	3.3	
EDZ	438	1203	2.7	128	366	2.9	479	1387	2.9	366	877	2.4	
SDZ	341	1160	3.4	155	587	3.8	195	630	3.2	85	254	3.0	
STZ	232	900	3.9	67	305	4.6	190	673	3.5	91	206	2.3	
NTZ	135	1051	7.8	90	947	10.5	114	1157	10.1	100	565	5.7	
HZ	192	1021	5.3	80	781	9.8	159	790	5.0	78	411	5.3	
CZ	105	644	6.1	11	62	5.6	54	244	4.5	2	11	5.5	
Total	2475	11946	4.8	851	4710	5.5	2285	11939	5.2	1727	7785	4.5	

Note: *: No. of farmers

The hiring of mould board plough and cultivators was more predominant in all the zones as compared to using rotovator and seed-cum-fertilizer drill. This is due to higher adoption of farm mechanization for land preparation than other farm operations. Mold Board (MB) plough and cultivators are mainly used for land preparation. Across the zones the use of both these equipment was highest in NDZ (2967 hrs. of MB plough and 3325 hrs. of cultivators). Relatively, less intensified use of MB plough was recorded in Southern zone. This is due to the differences in soil types in northern and southern regions of the state. The intensity of using the services of land preparation equipment also depends on the size of the zone and cropping pattern. The minimal use of MB plough and cultivator was recorded in CZ (Zone 10), due to limited cultivated area. As compared to MB plough and cultivator the use of rotovator was limited in all zones except NDZ (1338 hrs.). This may be due to difference in the cropping pattern and availability of rotovator in concerned centres. The use of seedcum-fertilizer drill is limited, in general, considering the vast cultivated area in different zones. This mainly due to low rate of adaptability of the technology in all the zones. Among the zones seed-cum-fertilizer drill was more intensively used in zones 1, 2 & 3 (1348, 1613 and 2034 hrs. respectively) as compared to other zones. Relatively higher adaption rate or availability of equipment are the possible reasons for more intensified use in these zones. Seed-cum-fertilizer drill is mainly recommended for rainfed areas to sow the row crops of closer spacings. For this reason, vast paddy area distributed in SDZ, STZ, CZ, NDZ and NEDZ cannot use seed-cum-fertilizer drill. The least use of seed-cum-fertilizer drill was recorded in CZ, as the entire zone grows transplanted paddy.

Ownership of equipment

The service providers SKDRDP and ISAP entered into agreement during 2014-15 with Director of Agriculture indicating sharing ownership of equipment/ machines (as indicated in Annexure IV). However, the agreement between Director of Agriculture and other service providers (during 2015-16) did not contain any specific clause to declare the ownership of machines/ equipment.

The usefulness of CHSCs in attending to the farm operations timely and efficiently is indicated by number of labours saved, timeliness of operations and number of farmers experiencing soil moisture conservation.

Labour savings

Overall, 99.78 % farmers have expressed that labour requirement was reduced by the use of CHSC machines/ equipment, made available to them when they were needed (Table 8.6). Although zone wise difference was observed in respect of farmers' opinion, they were insignificant and ignorable. In five out of ten zones, all the beneficiary farmers expressed that they could reduce their labour requirement. In other five zones, as many as 99.29 to 99.64 % farmers expressed positive opinion about labour reduction. The observation about labour reduction did not vary across service providers significantly. All of them recorded a range of 99.5 to 100 % farmers opining that labour requirement was indeed reduced by the use of CHSC machinery/ equipment. In respect of number of labour saved per farm, the survey indicated that on an average 9.7 to 14 labourers were saved per season per farm due to adoption of farm mechanisation. Number of labours saved varied in different zones. Maximum of 14 labours were saved per season per farm in central dry zone (zone 4), while, in other zones, the labour saved per season per farm ranged between 9.7 and 12.9 (Table 8.7). These variations may be due to variations in cropping pattern, differing efficiencies of CHSCs in providing the service, availability of required equipment on time etc. The variations across the service providers indicated that CHSCs operated by M & M recorded maximum (12.6 labourers/season/farm) labour saving, while in case of other service providers it ranged from 10.4 to 11.5 labourers/season/farm. The zone-wise and service provider-wise differences in the number of labour saved were significant statistically at 1% level.

Table 8.6: Opinion of beneficiary farmers on reduction in labour use due to availing of equipment from CHSC

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	105
TIETZ	100.00
NEDZ	349
	99.71
NDZ	735
	100.00
CDZ	279
	99.64
EDZ	560
	100.00
SDZ	593
	99.66
STZ	348
	99.43
NTZ	210
	100.00
HZ	278
	99.29
CZ	210 100.00
	3667
All ZONES	99.78
Service provider	
ISAP	105
ISAF	100.00
JOHN	455
JOHN	100.00
KALA	70
IX/IL/I	100.00
M & M	837
	99.64
SKDRD	1608
	99.88
VST	592
	99.50
All	3667
	99.78

Table 8.7: Descriptive statistics of CHSC on number of labourers saved

Zones	Mean	Std.Dev	Minimum	Maximum
NETZ	12.63	8.10	2.00	50.00
NEDZ	12.94	9.01	2.00	60.00
NDZ	11.99	7.10	2.00	60.00
CDZ	13.95	13.68	0.00	130.00
EDZ	9.72	7.63	1.00	70.00
SDZ	11.05	8.02	2.00	100.00
STZ	11.28	7.87	0.00	40.00
NTZ	10.64	5.80	5.00	48.00
HZ	11.19	7.21	3.00	40.00
CZ	11.61	6.22	2.00	30.00
All Zones	11.7	8.06	1.90	62.8
Service provider				
ISAP	10.58	7.63	2.00	40.00
JOHN	11.31	8.16	1.00	60.00
KALA	10.36	4.21	4.00	30.00
M & M	12.60	8.01	0.00	60.00
SKDRD	11.53	7.77	1.00	70.00
VST	10.42	10.04	0.00	130.00
All Zones	11.7	8.06	1.9	62.8

Timeliness of operation

To a question on whether operations were able to be taken up timely due to use of CHSC machines/ equipment, 97.82 % farmers have opined positively, implying that timely operations were achieved by the use of CHSC machines (Table 8.8). Except hilly zone (zone 9) which recorded 91.8 % farmers expressing advantages of timeliness, in all other zones 96 -100 % farmers have expressed positive opinion about timeliness. Similarly, although some minor variations were observed across the service providers, all of them recorded a good range of 96.7 to 100 % farmers opining favourably in respect of timeliness.

Table 8.8: Opinion of beneficiary farmers on timeliness of operations

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	103
NEIZ	98.10
NEDZ	348
IVEDE	99.43
NDZ	732
INDE	99.59
CDZ	275
CDE	98.21
EDZ	553
	98.75
SDZ	571
	95.97
STZ	339
	96.86
NTZ	207
	98.57
HZ	257
	91.79
CZ	210
	100.00
All ZONES	3595
C	97.82
Service provider	105
ISAP	105 100.00
IOIDI	451
JOHN	99.12
KALA	70
KALA	100.00
N	828
M & M	98.57
SKDRD	1558
BKDKD	96.77
VST	583
101	97.98
All	3595
All	97.82
	97.02

Soil moisture conservation

Only 31.1% of farmers have expressed that soil moisture could be conserved by the use of CHSC machines/ equipment (Table 8.9). This may be due to reasons like diversity in rainfall distribution across the zones, water holding capacity of different soils, effectiveness of machines/ equipment etc. Across the zones, large variation was found in respect of soil moisture conservation. In zones, predominantly having black soils (zones 1, 2, 3), 53.74 to 90.5% farmers found that CHSC machines were helpful to conserve the soil moisture. But, in zones with predominantly red soils, 1.5% to 30.54% farmers have found such advantages and the remaining farmers did not find such advantages. Particularly, southern dry zone recorded only 1.5% farmers experiencing advantage of moisture conservation.

Spectacular difference between black soil and red soil regions was due to difference in water holding capacity of these soils. Even hilly and coastal zones (zones 9 and 10) only 17.6 to 27.8% farmers expressed the advantages of soil moisture conservation by use of CHSC machines/ equipment. The farmers using the services of KALA and ISAP CHSCs recorded higher moisture conservation than others (97-98% farmers expressing their opinion in favour), mainly because they catered to the farmers of zone 1 and 2, where moisture holding capacity of soil is higher. Other service providers recorded 19 to 44% farmers indicating their positive opinion about soil moisture conservation, implying that majority of them did not get advantage of soil moisture conservation.

Table 8.9: Opinion of Beneficiary farmers on soil moisture conservation due to use of equipment.

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	95
112	90.48
NEDZ	212
	60.57
NDZ	395
	53.74
CDZ	74
	26.43
EDZ	171
	30.54
SDZ	9 1.51
STZ	50
51Z	14.29
	22
NTZ	10.48
	78
HZ	27.86
	37
CZ	17.62
AN GOVEG	1143
All ZONES	31.10
Service provider	
ISAP	103
	98.10
JOHN	201
	44.18
KALA	68
	97.14
M & M	339
	40.36
SKDRD	305
. Vom	18.94
VST	127
	21.34
All	1143
	31.10

Timely availability of hi-tech equipment at CHSCs would naturally result in two consequences. 1) Area covered by each farmer within their individual total land holdings and 2) Change in cropping pattern due to expansion of area or timeliness of operations. These two indicators were studied in detail during the study.

Area under cultivation by each farmer:

In the overall analysis, mean cultivated area of farmers increased from 4.0 acres to 4.87 acres (21.5% increase) considering the situation before and after the use of CHSC services. The area expansion was possible mainly due to timely field operations (land preparation, sowing and transplanting), providing the farmers to take up the cultivation of his remaining area, where he can take up the cultivation before the soil moisture is lost. Secondary analysis of these results indicated that such area expansion was more predominant in large (>10 acres) and medium (5-10 acres) sized farmers than small and marginal farmers, who own small holdings with no scope to expand their cultivated area (Table 8.10, Fig 8.4 and 8.5). This indicates that the breakup of area increase from farmers owning less than 2 acres and 2 to 5 acres will have no possibilities.

The expansion of cultivated area per farmer varied numerically vastly across the agro ecological zones. Hilly zone (zone 9), Eastern dry zone (zone 5) and northern dry zone (zone 3) recorded larger expansion between 26 and 31% expansion compared to the area before the use of CHSC assisted farm mechanisation. But, in central dry zone (zone 4), southern dry zone (zone 6) and northern transitional zone (zone 8), such expansion was limited from 14.2 % to 12.7 % as compared to their area before the use of CHSC machines. This may be due to difference between percentages of large/ medium sized farmers among the total number of farmers across the zones. Even between service providers, the extent of area expansion differed significantly. The farmers using the services of John Deer, ISAP and SKDRDP expanded their area by 24-25% of their original area, while such expansion was limited to 15.8% over their original area in the case of users of service provided by M & M.

The increase in area under cultivation by adopting farm mechanization was possible, because the farmer was able to prepare larger area with machines for cultivation in short time before the monsoon was over. Without mechanization his coverage would been restricted, as the soil moisture would have been lost before the land was prepared.

Table 8.10: Impact of CHSC on change in zone - wise cropping area

	N	Aean area (a	cres)	0/		
Zone	Before	After	Difference	% difference	P value	
NETZ	8.78	9.50	0.72	8.24	0.99	
NEDZ	7.23	8.45	1.22	16.8	1.00	
NDZ	4.51	5.70	1.19	26.46	1.00	
CDZ	2.76	3.70	0.94	33.8	1.00	
EDZ	3.17	4.06	0.89	27.92	1.00	
SDZ	3.20	3.66	0.46	14.27	1.00	
STZ	3.42	4.13	0.71	20.95	1.00	
NTZ	3.83	4.32	0.49	12.66	1.00	
HZ	3.38	4.43	1.05	31.18	1.00	
CZ	3.05	3.49	0.44	14.2	1.00	
All Zones	4.01	4.87	0.86	21.52		
Service Provider						
ISAP	6.27	7.85	1.58	25.36	0.005	
JOHN	3.56	4.48	0.92	25.86	0.00	
KALA	3.97	4.84	0.87	21.93	0.00	
M & M	5.50	6.36	0.86	15.68	0.00	
SKDRD	3.58	4.45	0.87	24.1	0.00	
VST	3.03	3.66	0.63	20.81	0.00	

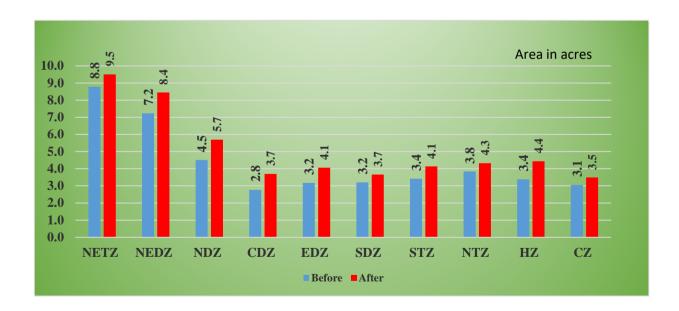


Fig 8.4: Zone-wise impact of CHSC service on change in cropping area before and after availing service

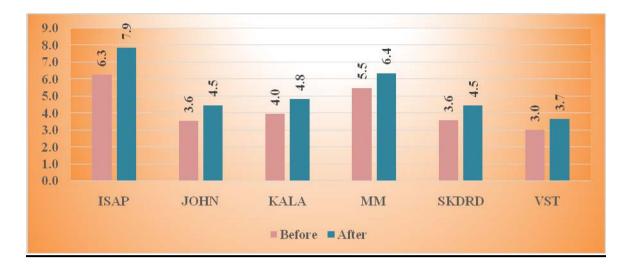


Fig 8.5: Service provider-wise impact of CHSC service on change in cropping area before and after availing service

Change in cropping pattern:

The shift in cropping pattern as a result of using CHSC services was not noticeable in as many as 62.4 % farmers, while 37.6 % farmers were able to change their cropping pattern from ragi to pulses and horticulture crops, jowar to cotton and pulses, bajra to maize and vegetables minor millets to ragi and sunflower, horse gram to maize and flowers. Mere use of CHSC machines may not result into major change in cropping pattern, as introduction or deletion of a crop is governed by a number of other parameters like profitability of growing such crop, suitability of such crop to the soil/climate/season, familiarity of a crop cultivation to the farmer.

Across the agro ecological zones, shifts in cropping pattern differed. Zone 4 and zone 5 witnessed 60-69 % farmers shifting their crop as a result of using CHSC services. But, in zone 2 and zone 10, only 7.6 to 11 % farmers could shift their cropping pattern. By and large, in most zones, the shift in cropping pattern was insignificant and not recognizable as a function of using the services of CHSC. Similarly, the shift in cropping pattern was not seriously affected by different service providers, as nearly 62 % farmers did not change their cropping pattern due to the use of CHSC service. Low value crops/low yielding crops like ragi, jowar, horse gram and castor were replaced by more profitable crops like maize, paddy, sunflower, mulberry, tomato and other horticulture crops. Zone-wise and crop category-wise change in cropping pattern indicating shifts of crop preferences by use of CHSC service is presented in Tables 8.11 and 8.12. The opinion of the beneficiary farmers regarding the shift in cropping pattern is also presented in different zones as well as in different service providers (Table 8.13). Maximum number of farmers availing the services of SKDRDP (49.75%) recorded shift in cropping pattern, followed by 39.5% in VST tillers and 38.9% in John Deer. The remaining service providers recorded much lesser shifts in cropping pattern.

Table 8.11: Zone - wise and crop category-wise no. of farmers who have changed the cropping programme using CHSC service

Zone	Total no. of farmers surveyed in the zone	Cereals	Pulses	Oilseeds	Cotton	Sugarcane	Mulberry	Horticulture crops	Total	% of farmers changed the cropping programme
NETZ	105	7		4	1			12	24	22.86
NEDZ	350	4	8	15	10			2	39	11.14
NDZ	735	68	56	86	22	1		51	284	38.64
CDZ	280	21	67	5	3	6		15	117	41.79
EDZ	560	50	40	43			34	166	333	59.46
SDZ	595	14	1				5	57	77	12.94
STZ	350	4	31	55		3		10	103	29.43
NTZ	210	4		4	46				54	25.71
HZ	280	2		40		18		47	107	38.21
CZ	210	2		6				7	15	7.14
among cro prog	3675 centage g changed opping gramme rmers	176 15.26	203 17.61	258	7.11	2.43	3.38	31.83	1153	37.58

Table 8.12: Crops that replaced the existing crops

Existing crop	Crops replaced by
Ragi	Green gram, cowpea, flat bean (avare), mango, pomegranate
Bajra	Maize, vegetables
Rabi Jowar	Bengal gram, cotton
Minor millets	Ragi, sunflower
Horse gram	Maize, flowers

Table 8.13: Opinion of beneficiary farmers on change in cropping pattern

ZONE	RESPONSE(counts & percent)				
ZONE	Yes				
NETZ	19				
NEIZ	18.10				
NEDZ	42				
NEDE	12.00				
NDZ	327				
NDZ	44.49				
CDZ	169				
CDZ	60.36				
EDZ	391				
EDZ	69.82				
SDZ	85				
SDZ	14.29				
STZ	108				
	30.86				
NTZ	103				
IVIZ	49.05				
HZ	121				
112	43.21				
CZ	16				
	7.62				
All Zones	1381				
All Zones	37.58				

Table 8.13 contd...

Service provider	Yes
ISAP	7
	6.67
JOHN	177
	38.90
KALA	5
	7.14
M & M	156
	18.57
SKDRD	801
	49.75
VST	235
	39.50
AII	1381
All	37.58

8.5 Analysis of demand for Farm Machinery / equipment

Krishi Yantra Dhare programme was conceived with an idea of providing timely supply of the required farm machinery and equipment based on CHSC wise survey of the requirement in respective jurisdiction and seek the approval of such machines and equipment in District Implements Committee. Hence, demand-based requirement of machinery & equipment is embedded in the scheme itself.

But, implementation of Krishi Yantra Dhare scheme for the last 3-5 years can also be the basis for demand analysis of farm machinery and other hi-tech equipment, as mandated in the objectives of evaluation. To address demand analysis, the template for primary data collection from 3750 farmers included following parameters, indicating the demand pattern

- 1. Frequency of tractor used per farm or power tiller used per farm
- 2. Frequency of using different equipment
- 3. Equipment necessary to be stocked in more numbers
- 4. Additional equipment to be introduced
- 5. Equipment stocked but used less than 3 hours in a season

Each one of them is an indicator of demand for farm machineries and equipment. Pooled information of data collected on the above parameters in primary data collected from 3750 farmers as well as 105 CHSCs (as IDIs) on these parameters is presented below to make demand analysis.

Frequency of tractor use

Tractors were being used as many as 3608 times, for various purposes in the 105 sample CHSCs, irrespective of Horse Power. Out of them, 40-45 HP tractors were used 1663 times across all the zones/ service providers, while 46-50 HP tractors were used 962 times in a year by different beneficiaries across the zones/ service providers (Table 8.14, Fig.8.6). Tractors of > 51 HP were used on 573 occasions in a year and tractors of < 39 HP were used 410 times. This clearly indicates that there is more demand for tractors of 40-45 HP capacity. Their number needs to be increased in future to cover more area/ more farmers in each CHSC. However, zone wise differences existed in demand for various groups of tractors, depending on intensity of farm mechanization in different zones. In zones 3 and 6, for example, largest use of tractors of 40-45 HP tractors were used (316 times & 338 times in a year, respectively), as compared to 61 and 79 times in a year recorded in zone 2 and zone 10. Similarly, tractors of 45-50 HP were in greater demand in zones 2, 3 and 5 (150,231 and 213 times, respectively), as compared to 33 and 54 times a year recorded in zone 4 and 9, respectively. By and large, zone 1 and zone 10 recorded very low use of tractors (105, 203 and 210 times in a year considering all capacities), as compared to other zones. Depending on nature of soil and extent of holding, tractors of different capacities are used in largely varying frequency.

Table 8.14: Zone-wise and horse power-wise number of tractors used

Zono	НР													
Zone	<30	35	36-39	40	41-44	45	46-49	50	51-54	55	58	60	> 60	Total
NETZ	0		0	1	0	1	0	53	0	29		21	0	105
NEDZ	0	13	0	2	0	59	0	150	0	21		105	0	350
NDZ	1	17	3	1	8	308	13	218	0	144		15	1	729
CDZ	3	43	20	24	14	92	35	33	10	1	1	3	0	279
EDZ	1	28	1	3	22	241	0	213	0	44		1	0	554
SDZ	26	150	0	196	0	142	0	48	2				1	565
STZ	4	8	0	63	1	204	0	41	0	25			0	346
NTZ	0	38	0		0	58	0	8	0	106			0	210
HZ	0	27	0	6	1	137	0	53	0	43			0	267
CZ	0	27	0	0	0	79	0	97	0				0	203
Total	35	351	24	296	46	1321	48	914	12	413	1	145	2	3608

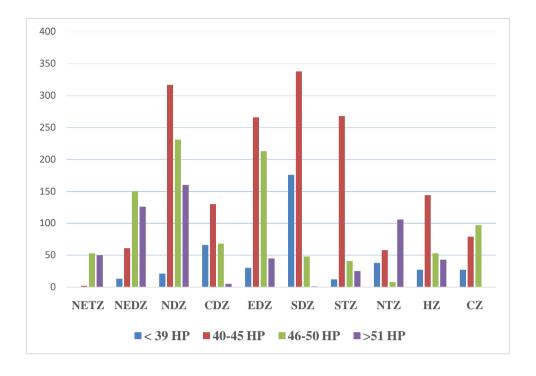


Fig 8.6: Zone-wise frequency of tractor use

Service provider plays major role in stocking the tractors of varying capacities. The utilization of different capacity tractors depends on whether they are made available in CHSC by service providers. Although all the service providers have used tractors (of all capacities) for 34-35 times in each centre in a year, 48.6 % of tractors of 40-45 HP were used by SKDRDP alone, while ISAP did not use tractors of this capacity at all. Tractors of > 30 HP were used more frequently by SKDRDP and VST Tillers (193 and 174 times) than any other service providers. Maximum share of frequency of using tractors of 46 to 50 HP was provided by M&M and SKDRDP (229 and 327 times, respectively). M & M was the only service provider using tractors of 60 HP as compared to none by John Deer and Kala organisations (Table 8.15 & Fig 8.7).

Service	НР													
Provider	<30	35	36-39	40	41-44	45	46-49	50	51-54	55	58	60	>60	Total
ISAP	0		0		0		0	59	0	14		32	0	105
John Deer	0	25	1	2	8	248	10	124	0	25			0	443
KALA	0	1	0		0	26	0	42	0				1	70
M & M	5	11	0	140	0	239	1	228	0	102		107	0	833
SKDRD	8	172	13	97	11	701	12	315	10	236	1	3	1	1580
VST	22	142	10	57	27	107	25	146	2	36		3	0	577
Total	35	351	24	296	46	1321	48	914	12	413	1	145	2	3608

Table 8.15: Service provider - wise and horse power-wise number of tractors used

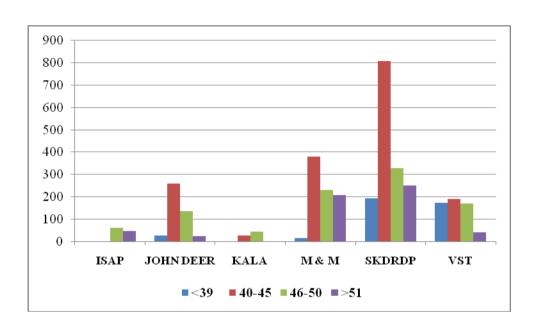


Fig 8.7: Service provider - wise frequency of tractor use

Frequency of power tiller use:

Power tillers are small machines used in many field operations like puddling, ploughing, inter-cultivation, harrowing and weeding operations. Due to their small size, they can be used more conveniently by farmers, especially on small holdings. They come in two types, 1) walk-behind type and 2) mount/ride on type. Walk-behind types are useful for lighter operations, while mount-on types are used for heavier operations. Power tillers of various capacities were used in different CHSCs. The frequency of using tillers was studied in the evaluation.

By and large, the use of power tillers was less frequent than the use of tractors, although power tillers are more useful in the case of small farmers, because maneuverability of machine in small holdings is easy. In the overall analysis, power tillers were used 591 times in all 105 CHSCs in one year, 62.7% of which were power tillers of >20HP. Power tillers of 21-25 HP and 26-30 HP were used 91 and 93 times, respectively, while tillers of 31-40 HP were used only 36 times in 105 CHSCs in one year. Inter zone differences in the use of power tillers were spectacular. In zone 4 and 5 tillers were used more frequently (150 and 138 times), followed by zone 6 (90 times) than other zones (0 to 69 times). Tillers of smaller capacity (<20 HP) are of greater demand, as they were more frequently used than other (Table 8.16). Among service providers, SKDRDP used tillers capacity power tillers more frequently (367 times) followed by VST tillers (150 times). Service providers like ISAP and Kala did not use tillers at all. Relatively intensive use of tillers was found with SKDRDP and VST tillers (8 times per centre in a year) than all other service providers. More tillers need to be encouraged in all other service providers, by properly educating the farmers on potential uses of power tillers through demonstrations.

Table 8.16: Zone-wise and horse power-wise number of power tiller used

Zana	HP											
Zone	< 20	21-25	26-30	31-40	Total							
NETZ	0	0	0	0	0							
NEDZ	4	0	0	0	4							
NDZ	33	2	0	0	35							
CDZ	46	38	59	7	150							
EDZ	106	0	31	1	138							
SDZ	78	12	0	0	90							
STZ	26	0	0	0	26							
NTZ	1	37	3	28	69							
HZ	63	2	0	0	65							
CZ	14	0	0	0	14							
Total	371	91	93	36	591							
Service prov	ider											
ISAP	0	0	0	0	0							
John Deer	13	20	3	11	47							
KALA	0	0	0	0	0							
M & M	21	6	0	0	27							
SKDRD	266	36	43	22	367							
VST	71	29	47	3	150							
Total	371	91	93	36	591							

Frequency of using equipment:

Preference to use specific equipment is indicated by frequency of use of equipment. In the overall analysis, land preparation equipment are in great demand compared to other equipment, as indicated by frequency of M.B Plough (67% farmers preferred to use M B plough) followed by cultivator (62 % farmers preferred to use cultivators), both of these equipment used for land preparation. Only 2% farmers preferred to use paddy transplanters, while 47 % farmers preferred to use seed-cum-fertilizer drill. Demand for rotovator (another land preparation equipment) exhibited similar trend, but only 23% farmers were able to use them because they were not stocked in sufficient numbers. The order of preference to use equipment in terms of frequency is the following.

M B Plough > cultivator > Seed cum fertilizer drill > rotovator > crop specific thresher > Multi crop thresher > combine harvesters > sprayers

Zone 3, having deep black soils and relatively large holdings, recorded more intensive use of land preparatory equipment like M B Plough, cultivator and rotovator than other zones. Use of M B plough as well as other land preparation equipment in zone 10 was relatively lesser (50% farmers) than other zones, because of low coverage and lesser number of centres in zone 2. But similar trend of low use of land preparatory equipment was low even in zone 10, because of soil type and cropping pattern. Trend of using cultivator was similar to that of M. B Plough across the zones. Seed-cum-fertilizer drills, more intensively used by dry land farmers, were used more frequently in zones 2 and 3 (both recording 70% farmers). Similarly, threshers are more frequently used in zones 5, 3 and 2 than in other zones, depending on the crops grown in the respective zones.

Equipment to be stocked in more number

If a particular equipment is more in demand, beneficiaries expect that CHSCs should stock them in more number, because more farmers may be able to use them. Particularly land preparation, for which most machineries are used, needs to be attended before soil moisture is lost from the soil. If particular machine/ equipment used for land preparation is in limited number, less number of farmers would be able to use them leading to poor coverage. For example, in Jayapur CHSC, in the peak season, 25 out of 33 equipment were put to use daily. Despite this, the total demand for equipment was not adequately met and centre has potentiality to cover more farmers, if a greater number of such equipment are made available. Similar experience was recorded in many centres like Nayakanahatti CHSC. Hence, stocking the most needed equipment would not only lead to large coverage but help the farmers to increase their crop yields (Table 8.17).

In this background, beneficiaries interviewed were sought to make suggestions as to which equipment must be maintained in CHSC in large number. These equipment are naturally in greater demand. The beneficiaries suggested following equipment to be stocked in large number in the order of preference:

- a. Tractors
- b. Power tiller
- c. M B Plough
- d. Cultivator
- e. Rotovator
- f. Disc plough
- g. Seed cum fertilizer drills
- h. Multi crop thresher
- i. Machine operated crop specific thresher
- j. Combine harvesters

However, economic feasibility studies must be made to finally decide in increasing the number of these machines/equipment

Table 8.17: Opinion of beneficiary farmers on increasing the number of equipment in the CHSC

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	17
	16.19
NEDZ	86
	24.57
NDZ	354
	48.16
CDZ	152
	54.29
EDZ	330
	58.93
SDZ	75
	12.61
STZ	82
	23.43
NTZ	177
	84.29
HZ	123
112	43.93
CZ	1
	0.48
All ZONES	1397
	38.01
Service provider	
ISAP	16
	15.24
JOHN	154
	33.85
KALA	0
	0.00
M & M	232
	27.62
SKDRD	773
	48.01
VST	222
	37.31
A 11	1397
All	38.01

Equipment to be introduced

The demand analysis included what new equipment are expected to be introduced, as opined by beneficiaries. Because, such equipment are in demand by the farmers, but not stocked in CHSCs (Table 8.18). Although many such demands are crop-specific, in general, the following equipment are in demand on priority, but not stocked by many CHSCs

- 1) Combine harvester
- 2) Groundnut strippers & diggers
- 3) Crop specific reapers
- 4) Power tiller operated sprayers
- 5) Seed bed preparation machine
- 6) Ridger for sugarcane
- 7) Baler for baling paddy straw
- 8) Boom sprayers
- 9) Chain harvesters for paddy
- 10) Power weeder

Table 8.18: Opinion of beneficiary farmers on introduction of new equipment by **CHSCs**

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	15
	14.29
NEDZ	125
	35.71
NDZ	423
	57.55
CDZ	166
	59.29 454
EDZ	81.07
	86
SDZ	14.45
STZ	90
512	25.71
	175
NTZ	83.33
11/2	113
HZ	40.36
CZ	10
CZ	4.76
All ZONES	1657
	45.09
Service provider	
ISAP	23
	21.90
JOHN	198
	43.52
KALA	0
26026	0.00
M & M	273
CADDD	32.50
SKDRD	871 54.10
VST	292
\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	49.08
All	1657
All	45.09
	75.07

Equipment stocked but used for less than three hours in a season

Many equipment stocked in CHSCs are not put to use, as there is no demand for them in these centres or equipment are not repaired. For example, in HuliHyder CHSC, as many as 9 out of 15 equipment are not put to use. The equipment which is in less demand should not be stocked to reduce the cost to the CHSC. Realistic assessment of centre-wise requirement based on scientific demand analysis is needed before the machines/equipment and their number is decided. At present, neither centre/ service provider nor the Department is taking up scientific demand analysis in every centre. Some equipment stocked in different centres, which are never used or sparingly used are:

- a) Sugarcane stubble shaver
- b) Cage wheel
- c) Roto till drill
- d) Grass cutting machine
- e) Powdering machine
- f) Tractor operated sprayers
- g) Laser leveller

The low utility of these equipment/machines is not uniform in all centres. In some centres, they are needed in more number, but in some centres, they have become redundant. Centre wise scientifically carried out demand analysis is necessary in all future CHSCs

In summary, the most demanded machine is tractor of 40-45 HP capacity and most demanded equipment are M B plough and cultivators. However, other machines in decreasing order of demand in the CHSC scheme are

- a) Tractors of capacity between 46 to 50 HP
- b) Tractors of capacity more than 51 HP
- c) Tractors of capacity less than 39 HP
- d) Power tillers of less than 20 HP capacity
- e) Threshers
- f) Multi crop threshers
- g) Combine harvesters

The preference and the order of priority is not uniform across the zones due to changing crop and soil features

8.6 Impact of Implementing Krishi Yantra Dhare (CHSC) Scheme

A. Impact on production and productivity of the crops in Karnataka State

Farm mechanization enables timeliness and precision to agricultural operations, greater field coverage area over a short period, cost effectiveness, efficient user resources and applied inputs besides, conserving soil moisture under stress situation. Farming system cannot sustain with traditional farm implements as it is inductive for diversification of cropping pattern. In recent years, farm mechanization becomes utmost necessary because of comparative cost advantage and timeliness of farming practice.

The productivity of crops, apart from other factors, use of farm machinery/tools for timely land preparation and seeding facilitates efficient use of soil moisture and inputs and increases work output per unit time. In recent years, due to various reasons including rural migration, there has been scarcity of farm labour hampering timely field operations affecting the crop productivity.

In this study, beneficiaries were inquired on impact of services of CHSC on production and productivity of crops grown on their farm. It is apparent from the survey conducted involving 3750 beneficiary farmers covering 105 CHSCs across different agroclimatic zones that there is significant increase in productivity of different crops ranging from 5.25 % (paddy) to 45.3% (black gram) due to intervention of CHSCs. The information gathered through sample survey on impact of CHSCs on productivity of various crops revealed positive response on productivity in all the crops. Enhancement of productivity of cereals, pulses, oilseeds, cotton, sugarcane, mulberry and horticultural crops are presented in Table 8.19. Further, enhancement of productivity of individual crops are also e presented in Annexures XIV, XV and XVI).

Paddy: The mean increase in yield across the zone was 5.25% with maximum increase in NDZ (12.21%) followed by NEDZ (8.69%) (Fig 8.8). Yield increase due to CHSC intervention showed negative trend in Coastal zone. Productivity enhancement was higher due to services offered by M/s Kala (28.9%) followed by ISAP (10.42%). Contribution of other service providers was noted to be insignificant.

Productivity of paddy in respect of beneficiary farmers (BF) and non-beneficiary farmers (NBF) due to CHSC intervention was 22.23 q/ac and 21.44 q/ac (Table 8.20), respectively amounting to net productivity enhancement of 0.79 q/ac (3.68%).

Ragi: The mean yield increase across the zones was to the tune of 23.26% ranging from 4.25% (NDZ) to 28.35% (EDZ). The services of VST contributed 17.67% improvement followed by john Deer (16.91%).

About 32.87% of productivity enhancement of ragi was accounted for by BF due to CHSC intervention as compared to NBF.

Table 8.19: Increase in productivity after CHSC: zone-wise and crop category-wise

		Cereals			Pulses Oilseeds			Cotton				
Zone	Produ (qtls.	•	% Incre		ctivity /ac.)	% Incre	Produ (qtls.	•	% Incre	Produ (qtls.	•	% Incre
	Before	After	ase	Before	After	ase	Before	After	ase	Before	After	ase
NETZ	3.59	4.12	14.77	2.53	3.31	30.63	5.22	6.51	24.61	0	0	0
NEDZ	8.71	9.79	12.44	4.50	5.39	19.67	5.02	5.42	7.89	7.83	9.01	15.07
NDZ	11.51	12.71	10.41	7.16	8.28	15.61	6.15	7.80	26.71	7.13	8.28	16.04
CDZ	12.50	14.02	12.13	7.31	8.28	13.32	5.15	5.67	10.10	8.14	9.33	14.52
EDZ	10.43	12.24	17.41	6.72	8.73	29.96	16.04	14.74	8.05	0	0	0
SDZ	9.17	9.65	5.17	4.72	5.54	17.29	4.03	4.99	23.82	0	0	0
STZ	11.20	12.24	9.29	11.18	11.18	0.02	16.67	14.87	10.78	0	0	0
NTZ	15.65	16.84	7.57	5.60	6.96	24.42	6.49	7.69	18.44	10.74	9.79	-8.85
HZ	13.68	14.99	9.58	8.55	8.59	0.53	10.26	11.57	12.77	8.00	10.00	25.00
CZ	23.01	21.85	-5.04	0.00	0.00	0.00	12.87	13.56	5.38	0	0	0
State Mean	10.83	12.05	11.26	5.31	6.85	29.08	5.06	6.14	21.33	9.37	10.27	9.59

Table 8.19 contd...

	S	Sugarcane			Mulberry			iculture cr	ops
Zone	Productivity (qtls./ac.)		% Incre	Productivity % Incre		Productivity (qtls./ac.)		% Incre	
	Before	After	ase	Before	After	ase	Before	After	ase
NETZ	487.5	528.77	8.47	0	0	0	0	0	0
NEDZ	266.67	375.00	40.63	0	0	0	54.65	88.35	61.65
NDZ	448.91	496.87	10.68	0	0	0	36.58	37.02	1.21
CDZ	76.67	90.00	17.39	0	0	0	16.33	19.27	18.05
EDZ	385.23	423.54	9.95	2.37	2.89	21.94	49.19	51.40	4.49
SDZ	446.08	470.85	5.55	1.29	1.35	4.45	10.61	11.95	12.65
STZ	493.33	500.50	1.45	0	0	0	24.02	25.22	4.98
NTZ	649.21	751.29	15.72	0	0	0	62.97	70.65	12.2
HZ	433.10	482.39	11.38	0	0	0	22.91	23.15	1.06
CZ	149.17	149	-0.11	0	0	0	11.89	12.51	5.22
State Mean	457.03	493.26	7.93	2.28	2.77	21.49	35.3	38.62	9.38

Table 8.20: Comparison of productivity of beneficiary farmers with that of nonbeneficiary farmers (control)

Sl.No.	Crons	Productivity (qtls. /ac.)						
51.110.	Crops	BF*	NBF**	Difference	% increase			
1	Paddy	22.23	21.44	0.79	3.68			
2	Ragi	8.53	6.42	2.11	32.87			
3	Maize	14.14	12.00	2.14	17.83			
4	Jowar	8.98	7.57	1.41	18.63			
5	Soybean	7.76	4.60	3.16	68.70			
6	Cotton	10.27	6.70	3.57	53.28			
7	Sugarcane	493.26	392.94	100.32	25.53			
8	Tobacco	5.72	5.33	0.39	7.32			
9	Mulberry	2.77	2.63	0.14	5.32			
10	Horticultural crops	38.62	33.63	4.99	14.84			

NOTE: * BF: Beneficiary farmer ** NBF: Non beneficiary farmer

Maize: Productivity of Maize before and after the use of machineries of CHSC was 13.10 q/Ac and 14.24 q/Ac, respectively resulting in 8.68% increased yield across the zones. Among the zones, yield enhancement ranged from 3.97% (NTZ) to 45.43% (EDZ). The services rendered by VST (25.23%) resulted in higher productivity improvement followed by John Deer (20.38 %) and M & M (13.99%).

Chi-square test was conducted to analyse the association between M B Plough, soil moisture and productivity of Maize. The results indicated no association between use of M B plough for land preparation for moisture conservation and productivity of maize crop (Table 8.21).

Table 8.21 Association between soil moisture, M B plough and productivity due to CHSC intervention

Crops	Chi square value			
Crops	MBP	Productivity		
Maize	6.636 ^{NS}	113.08 ^{NS}		
Redgram	5.914**	2.855*		
Groundnut	14.59**	0.926*		
Cotton	18.884**	9.280*		

*: significant at 5% **: significant at 1% NS: Non-significant

Analysis of relationship between post-harvest losses and productivity of maize indicated negative and significant relationship, indicating saving of produce.

Jowar: Productivity of jowar before and after CHSC intervention was 8.08 q/ac and 8.98 q/ac, respectively with net productivity enhancement of 0.9 q/ac leading to 11.2% enhancement. Among the zones, yield enhancement from ranged from 8.77% (HZ) to 25.05% (STZ). Among the services offered, ISAP accounted for 65% enhanced productivity followed by VST (15.42%)

Productivity of BF and NBF was 8.98 quintals and 7.57 quintals, respectively amounting enhanced productivity of 1.41 quintals leading to 18.63% increase as compared to control farmers.

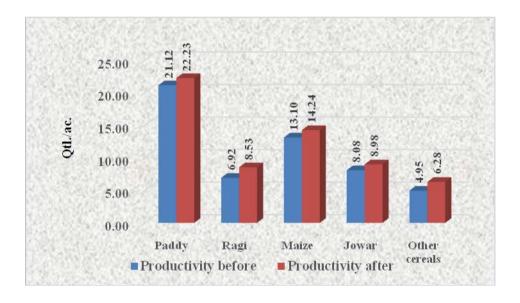


Fig 8.8: Productivity before and after mechanisation in cereal crops due to CHSC intervention

Redgram: Redgram is a predominant pulse crop of the State. The yield was 3.77 q/ac and 4.47 g/ac before and after intervention of CHSC respectively, accounting to yield enhancement by 18.42% across the zone (Fig 8.9). However, it ranged from 11.85% (EDZ) to 30.68% (NEDZ). Contribution of ISAP accounted for higher increased yield (35.74%) followed by VST (24.31%).

Chi-square test was conducted to analyse the association between M B Plough, soil moisture and productivity of redgram. The results indicated positive association between use of MB plough for land preparation for moisture conservation and productivity of redgram crop.

Analysis of relationship between post-harvest losses and productivity of redgram indicated positive relationship (Table 8.22).

Table 8.22: Relationship between post-harvest losses and productivity due to CHSC intervention

Crops	Coefficient of correlation (r)
Maize	-0.16
Redgram	0.37
Groundnut	-0.11

Bengal gram: Being an important rabi crop, it accounted for 40.2% increase in yield across the zones due to CHSC services. However, yield enhancement ranged from merely 4.65% (NEDZ) to as high as 40% (EDZ). Wide variation in yield increase ranging from 5.75% to 45.87% was observed due to services rendered by SKDRDP and M & M, respectively.

Black gram: Due to intervention of CHSC, there has been 45.34% enhanced yield reported from sample beneficiary farmers. It ranged from 8.33% (CDZ) to 44.25% (NEDZ). Among service providers, increase in yield was highest (60.43%) due to services offered by M & M followed by ISAP (32.51%).

Green gram: About 26.70% yield increase across the zones was observed due to services offered by CHSC. The minimum (7.89%) and maximum (50.00%) increase in yield was observed in CDZ and STZ, respectively. Among the service providers, John Deer accounted for higher yield enhancement (44.00%) followed by M & M (42.53%)



Fig 8.9: Productivity enhancement in pulse crops due to CHSC intervention

Groundnut: Groundnut, a major oilseed crop, accounted for 11.7% increased yield across the zones due to intervention of CHSC. Increase in productivity was higher in SDZ (26.61%), followed by NTZ (21.7%) (Fig 8.10). CDZ accounted for lowest yield increase (4.96%). Trends in yield increase were negative in STZ and EDZ. With regard to services extended by service providers, SKDRDP accounted for 14.69% increased yield followed by John Deer (11.47%). ISAP accounted for lowest yield.

Analysis of relationship between post-harvest losses and productivity of groundnut indicated negative and significant relationship.

Sunflower: Productivity enhancement across the zones was 12.40% with a range from 17.22 % (NEDZ) to 21.95% (NTZ). The productivity enhancement due to service provider was accounted for 81.37% (VST) followed by 51.9% (M & M) and 33.33 % (ISPA).

Castor: Castor crop area was confined only to one zone (NDZ) where yield enhancement was reported as 33%.

Soybean: Soybean is concentrated in Northern parts of Karnataka especially Bidar and Belagavi districts accounting for 22.00 % improvement in yield across the zones. With zone-wise yield increment due to CHSC intervention, higher yield (52.85%) regard to was reported in NDZ followed by 24.6% (NETZ). Lowest (11.22%) response to yield improvement was reported in NTZ. The services extended by SKDRDP accounted for 35.2% yield improvement followed by ISAP (24.6%) and VST (17.0%).

Comparison between BF (7.76 q/ac) and NBF (4.6 q/ac) indicated enhanced productivity of 3.16 q/ac, which accounted for 68.70% enhancement compared to control farmers.

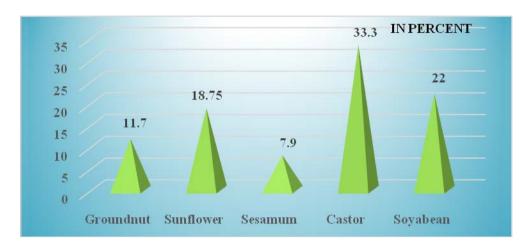


Fig 8.10: Productivity enhancement in oilseed crops due to CHSC intervention

Cotton: Being an important commercial crop of the state, survey findings revealed 9.6% yield enhancement through CHSC interventions at the state level (Fig 8.11). Among different zones, highest (25.0%) yield increase was reported in Hilly zone, followed by NDZ (16.04%) and NEDZ (15.07%). Contribution of service providers indicated that ISAP was responsible for 23.0% productivity enhancement followed by VST and SKDRDP.

Cotton productivity obtained by BF (10.27 q/ac) due to CHSC intervention was higher by 3.75 q/ac compared to control (6.7 q/ac).

Chi-square test indicated positive and highly significant association between M B plough and productivity, soil moisture and productivity of cotton.

Sugarcane: Responses of sugarcane growers of CHSC intervention revealed was positive on productive enhancement (7.9%) across the zones. Among the zones, productivity ranged from 40.6 % (NEDZ) to 1.5 % (STZ). With regard to service rendered by services providers, yield improvement ranged from 5.52% (Kala) to 19.36% (John Deer).

Tobacco: Tobacco crop which is grown only in STZ, indicated an improvement of 12.2% productivity due to CHSC intervention. Productivity enhancement to an extent of 7.32% was reported on account of CHSC intervention. (Improvement from 5.33 qtls/ac to 5.72 qtls/ac in NBF and BF respectively).

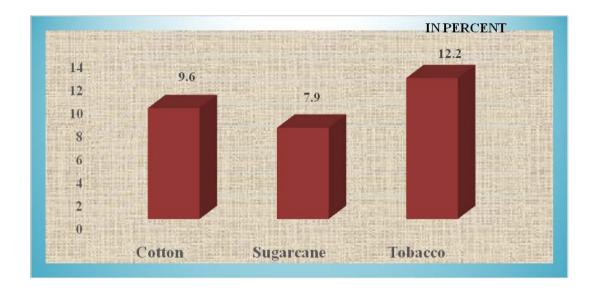


Fig 8.11: Productivity enhancement in commercial crops due to CHSC intervention

Mulberry: Being concentrated mainly in EDZ and SDZ, mulberry accounted for 21.9% and 4.45% yield improvement, respectively with average improvement of 21.5%. Services rendered by SKDRDP in providing farm machineries indicated 34.5% yield enhancement.

A marginal increase in mulberry yield (0.14 q/ac) was reported. Comparison between BF (2.77 q/ac) and NBF (2.63 q/ac) showed 5.32% enhancement due to farm mechanization.

Horticultural crops: Survey of Horticultural crops (which includes vegetables, fruits, flowers, plantation crops etc.,) accounted for 9.4% yield increment due to CHSC intervention across the zone. Productivity enhancement ranged from 1.06% (HZ) to 61.65 % (NEDZ). Among service providers, M & M accounted for 59.25% yield enhancement followed by John Deer (8.83%).

Horticultural crops indicated additional productivity of 4.99 q/ac due to use of farm machinery compared to NBF.

Beneficiary farmers have availed machineries viz., Tractors, M B Ploughs, Rotovators, Cultivators, Seed-cum-fertiliser drills, Multi crop threshers, whereas Non-beneficiary farmers have either hired machineries from private agencies or they have used local agricultural implements for crop production.

Rationale for CHSC intervention for productivity improvement as well as contribution of service providers are indicated below:

a) Change in cropped area of beneficiary farmers: The data of surveyed farmers revealed 21.52 % increase in cropping area across the zone, which resulted in overall production

enhancement (Fig 8.12). The opinion survey indicated that only 37.5% of sample farmers indicated positive opinion on change in cropping pattern and rest of them indicated that CHSC had no impact on cropping pattern. Increased cropping area due to services offered by service provider was observed to be significant which ranged from 15.68% (M & M) to 25.86% (John Deer). Increased area after CHSC was due to bringing left-over fallow land into cultivation in view of availability of farm machineries which help in taking up timely agricultural operations.

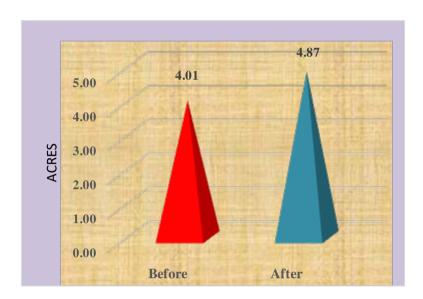


Fig 8.12: Impact of CHSC on change in cropping area (per farmer)

b) **Timely field operations:** Growth and productivity of any crop depends on timely field operations right from land preparation, sowing and up to harvest stage. This is evident from the opinion of the sample farmers wherein 97.8% of farmers revealed that they are able to take up timely field operations without any lapse due to CHSC facility (Fig 8.13). It is also noted that timely availability of right equipment to take up specific operation also contributed to productivity enhancement as survey data revealed positive opinion. This is further evident from the information on waiting period to avail CHSC service. Majority of the farmers (92.8%) opined that they had to wait only for 0 to 2 days to avail CHSC services to take up timely field operations.



Fig 8.13: Farmers' opinion on impact of CHSC on timely operations

Effective moisture conservation due to farm mechanization: Harnessing available moisture at right time facilitates many field operations like land preparation and seeding. In this aspect, primary data indicated that 68.9 % of beneficiary farmers were able to conserve moisture with the use of farm machinery provided by CHSC and the rest of the farmers (31.1%) indicated negative opinion on soil moisture conservation. Effective moisture conservation could be attributed to timely land preparation and seeding as a result of use of appropriate machineries made available at right time by CHSC (Fig 8.14).

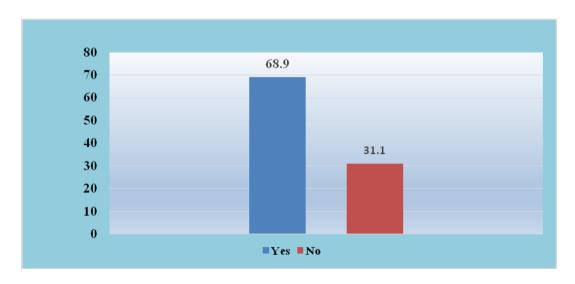


Fig 8.14: Farmers' opinion on impact of CHSC on soil moisture conservation

c) Contribution of input use: About 29% of sample farmers had positive opinion on increased use of input which contributed to productivity improvement due to CHSC intervention.

d) **Quality equipment:** Field efficiency of any farm machinery depends on the quality of equipment used to carry out specific field operation, which in turn influences growth and yield of any crop. In the present study, majority of the farmers (99.2%) expressed positive opinion on the quality of equipment used by them which might have contributed to productivity enhancement (Table 8.23).

Table 8.23: Opinion of Beneficiary farmers on quality of equipment provided by CHSC

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	104
ILL	99.05
NEDZ	349
TIEDE	99.71
NDZ	720
	97.96
CDZ	277
	98.93
EDZ	560
	100.00
SDZ	591
	99.33
STZ	349
	99.71
NTZ	209
	99.52
HZ	278 99.29
	210
CZ	100.00
	3647
All Zones	99.24
ISAP	104
ISAI	99.05
JOHN	440
	96.70
KALA	70
	100.00
M & M	838
	99.76
SKDRDP	1604
	99.63
VST	591
	99.33
A 33	3647
All	99.24

e) Reduction in post-harvest losses: 95% of the beneficiary farmers opined that, there has been a reduction in the post-harvest losses which might have contributed to the yield improvement (Table 8.24).

Table 8.24: Opinions of Beneficiary farmers on reduction in post-harvest losses

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	105
NETZ	100.00
NEDZ	350
	100.00
NDZ	733
	99.73
CDZ	231
	82.50
EDZ	525 93.75
	537
SDZ	90.25
STZ	317
512	90.57
	210
NTZ	100.00
110	280
HZ	100.00
CZ	210
CZ	100.00
All ZONES	3498
	95.18
ISAP	105
	100.00
JOHN	455
	100.00
KALA	70
2000	100.00
M & M	799
CADDD	95.12 1546
SKDRDP	96.02
VST	523
121	87.90
All	3498
All	95.18

Effectiveness of CHSC on productivity and economics of farming among SF& MF:

Increase in area, productivity and net returns in respect of marginal farmers and small farmers are presented in Table 8.25.

Marginal farmers:

- The total area cultivated before and after CHSC across the zone was 928.30 acres and 1102.30 acres respectively, accounting for 18.74% area increase. Increase in area on account of effectiveness of CHSC was noted in the case of paddy (12.91%), maize (1.24%), redgram (4.34%), cotton (26.31%), sugarcane (6.96%) and horticulture crops (21.73%), (Fig 8.15).
- Productivity enhancement in crops cultivated by marginal farmers also increased which varied from 8.69% (jowar) to 50% (Bengal gram).
- Increase in net returns of crops grown by MFs indicated the effectiveness of CHSC. Increase in net benefits (difference in net returns before and after CHSC) was observed, which varied from Rs.3551/ac (jowar) to as high as Rs.39794/ac (sugarcane).
- Effectiveness of CHSC was reflected in term of saving of labour due to farm mechanization. Survey data indicated that there has been reduction (saving) in labour use across the crops to an extent of 4 labourers/ac. Further, the findings of the study also revealed reduced cost of cultivation of marginal farmers to an extent of Rs.2313/acre over different crops.
- Due to effective farm mechanization, particularly due to use of Hi-Tech threshers/combined harvesters reduction in post-harvest losses among marginal farmers was reported to an extent of 9.14%. This might have contributed to productivity enhancement of marginal farmers.

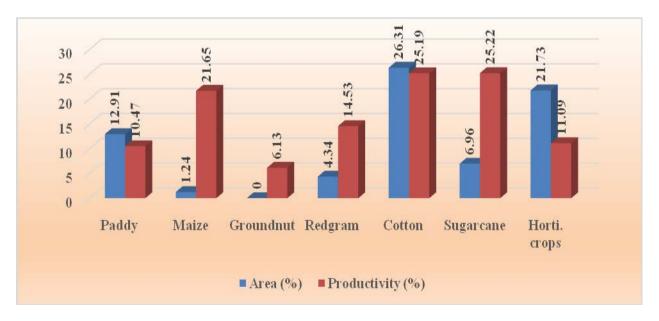


Fig 8.15: Increase in crop area and productivity of marginal farmers after CHSC intervention

Small farmers:

- Area increase due to effectiveness of CHSC among small farmers varied from 8.05% (Redgram) to 42.47% (sugarcane) which could be attributed to more area coverage per unit of time and timeliness of operations through use of farm machineries (Fig 8.16).
- In view of timely availability and quality of machineries due to CHSC facilities, the total area under different crops before and after CHSC was 2176 acres and 2639.5 acres, respectively which accounted for an increased area coverage by small farmers to the extent of 21.26 % across the zones.
- Productivity enhancement of small farmers due to effectiveness of CHSC was observed in many crops, where it ranged from 5.22% (cotton) to 25.54% (redgram) (Annexure XIV & XVI)
- Data on net income of small farmers due to CHSC revealed increasing trend in many crops. Net benefit varied from Rs.2193/acre (Maize) to Rs.17997/acre (horticulture crops).
- Survey data on labour saving over various crops cultivated by small farmers indicated a saving on an average of 3 labour/acre, which could be attributed due to use of farm machinery on their farms.
- Regarding reduction in cost of cultivation of various crops by small farmers, the findings of the study indicated a saving of Rs.1966/acre due to CHSC intervention.
- Intervention of CHSC by providing Hi-Tech threshers/combined harvesters accounted for reduction in post-harvest losses of various crops to an extent of 11.07%, which in turn might have led to productivity enhancement.

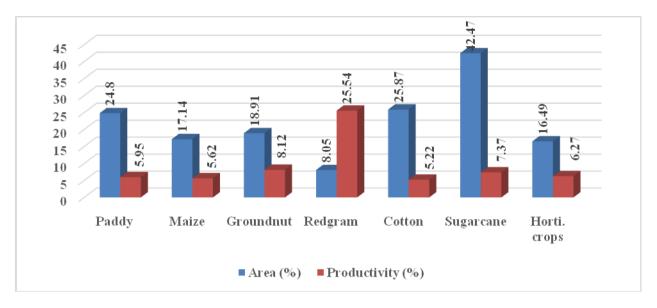


Fig 8.16: Increase in crop area and productivity of Small farmers after CHSC

Table 8.25: Category-wise increase/decrease in area, productivity and returns due to CHSC intervention

Crop	Arc	ea (%)	Producti	vity (%)	Net benefit (Rs/acre)	
Стор	MF	SF	MF	SF	MF	SF
Paddy	12.91	24.80	10.47	5.95	5592	3510
Maize	1.24	17.14	21.65	5.62	5815	2193
Jowar	37.11	23.87	8.69	19.05	3551	5099
Groundnut	20.09	18.91	6.13	8.12	3438	4264
Redgram	4.34	8.05	14.53	25.54	7132	6188
Bengal gram	0	0	50.0	21.57	9650	8880
Cotton	26.31	25.87	25.19	5.22	19243	3629
Sugarcane	6.96	42.47	25.22	7.37	39794	-9494
Horti. crops	21.73	16.49	11.09	6.27	28280	17997

B. Impact on net income and production cost

With the rise in scarcity of farm labour, declining land-labour ratio and draught animal power, there has been a steady rise in cost of production of agricultural crops. As a result farming is not able to provide adequate income to the farmers. Thus, farm mechanization has provided an opportunity to minimize cost of production and productivity enhancement. The cost of labour for agricultural operations is increasing substantially. It is a well-known fact that farm mechanization is the only way to reduce labour dependency and

cost of production. The economic analysis of various crops due to intervention of CHSC revealed following findings:

Reduction in cost of production and number of labourers due to CHSC intervention:

In the present study, analysis of opinion survey revealed that 99.21 % of the farmers (Table 8.26 & Fig 8.17) reported that use of farm machinery has resulted in reduction in cost of production across the State. Zone-wise, the opinion on reduction in cost of production ranges between 95 and 100 %.

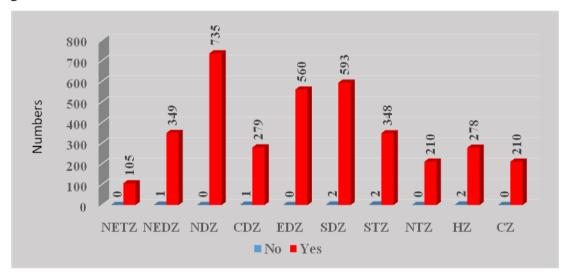


Fig 8.17: Opinion of farmers regarding zone-wise reduction in cost of cultivation Table 8.26: Zone wise farmer's opinion on reduction in cost of production.

7	RESPONSI	E (Count)	RESPONSE (Percent)
Zone	Yes	Total	Yes
NETZ	105	105	100.00
NEDZ	350	350	100.00
NDZ	733	735	99.73
CDZ	268	280	95.71
EDZ	556	560	99.29
SDZ	586	595	98.49
STZ	349	350	99.71
NTZ	210	210	100.00
HZ	279	280	99.64
CZ	210	210	100.00
All ZONES	3646	3675	99.21

Further, the data provided by the farmers indicated reduction in the cost of cultivation to an extent of Rs. 1750/- per acre across the zones. Among the zones, the reduction in cost of cultivation ranged between Rs. 983 (NETZ) and Rs. 2605 (CDZ) (Table 8.27).

Table 8.27: Zone-wise Labour reduction, reduction in cost of cultivation and increase in net income

Zone	Labour reduction (Nos.)	Reduction in cost of cultivation (Rs/acre)	Increase in net income (Rs/acre)
NETZ	1.33	982.50	2373.70
NEDZ	1.56	1224.10	2641.20
NDZ	2.04	1894.00	4374.60
CDZ	3.49	2604.70	7835.40
EDZ	2.35	1907.30	6491.60
SDZ	2.97	1614.70	5237.40
STZ	2.72	1635.30	4139.40
NTZ	2.46	2252.90	5461.90
HZ	2.46	2175.60	4125.40
CZ	3.34	1545.90	3253.40
State mean	2.32	1749.70	4539.60

The data were collected, complied and presented in Table 8.27, which clearly indicates reduction in labour use by using the CHSC machinery. However, the reduction in cost of cultivation and increase net income cannot be directly attributed to the use of farm machinery and labour saving, because, these benefits can also be attributed towards the indirect benefit accrued due to moisture conservation, better input use and timely field operations which might have resulted in reduction in cost of cultivation and hence increase in net income.

Economics of farming in different crops due to CHSC intervention:

The economic analysis of CHSC intervention was based on the data provided by beneficiary farmers on production, cost of cultivation and net income of various crops before and after CHSC intervention, which is provided in Annexure XIV to XVI.

Consolidated rise in net income per acre in different crop categories in different zones is presented in Table 8.28. Rise in net income was maximum with horticulture crops (Rs.19959/ac), followed by mulberry (Rs.15151/ac) and sugarcane (Rs.12580/ac). The minimum rise in net income was recorded in cereals (Rs.2536/ac). In general, the rise in net

income was larger in NEDZ, CDZ and NTZ, while the least rise is recorded in NDZ, HZ and CZ.

Table 8.28: Zone-wise and crop category -wise aggregate rise in net returns

Zone	Cereals (Rs./ac.)	Pulses (Rs./ac.)	Oilseeds (Rs./ac.)	Cotton (Rs./ac.)	Sugarcane (Rs./ac.)	Mulberry (Rs./ac.)	Horticulture crops (Rs./ac.)
NETZ	1234	5394	4817	0	14090	0	0
NEDZ	2820	5630	2821	6966	34210	-14500	190128
NDZ	3042	6390	7225	6783	16100	0	3913
CDZ	3846	5298	3351	6981	5710	0	17934
EDZ	4568	9385	1423	0	13204	16042	13790
SDZ	1672	4885	5319	0	9142	2321	8942
STZ	2852	2153	-7975	0	3860	0	8123
NTZ	3074	7729	6273	-3979	32334	0	44430
HZ	3541	81	6006	11190	16498	0	2777
CZ	-1294	0	4195	0	1660	0	4891
State Mean	2536	5216	3345	5519	12580	15151	19959

Information on difference in the net income obtained and B: C ratio (undiscounted) by farmers before and after CHSC intervention is highlighted to ascertain the impact of CHSC. The salient findings of the study are indicated in Table 8.29.

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Table 8.29: Zone-wise and crop-wise increase in net returns and B: C ratio (undiscounted) after establishment of CHSC

	F	Paddy	Ragi		Maize		J	owar	Other cereals	
Zone	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)
NETZ				0		0		0	1.09	1234
NEDZ	1.82	3933		0		0	1.89	2573	1.39	1955
NDZ	2.69	6843	1.86	1373	1.56	2323	2.40	2339	1.70	2334
CDZ	3.12	4071	1.73	3956	2.15	6011	2.57	3152	1.14	2038
EDZ	2.42	2952	1.57	5754	1.45	7805		0	1.27	1760
SDZ	1.51	1038	1.41	4821	1.77	3319	2.93	-1738	0.53	921
STZ	2.20	2789	1.50	2423	1.25	3745	2.51	4303	3.44	1002
NTZ	3.15	4844		0	2.31	2172	2.69	3109	2.43	2169
HZ	2.02	3332	1.98	4659	1.50	1726	6.70	4588	2.77	3401
CZ	2.21	-1294		0		0		0		0
State Mean	2.25	3266	1.53	4824	1.80	3027	2.78	2571	1.67	2812
Service Prov	ider									
ISAP	0.33	-1675	0	0	0	0	1.02	3520	1.92	2150
John Deer	2.25	2177	1.87	4529	1.95	5906	1.83	1962	1.92	1628
KALA	3.00	14383		0		0	1.76	1256		0
M & M	2.17	4034	1.55	2682	1.17	3026	2.18	2070	1.12	2840
SKDRDP	2.66	3201	1.64	3793	1.78	3000	3.73	3049	2.31	2252
VST	2.10	2190	1.41	3573	1.54	5596	2.83	3333	1.08	1054
State Mean	2.25	3266	1.53	4824	1.80	3027	2.78	2571	1.67	2812

^{*} Net returns: Difference between before and after CHSC

Table 8.29 Contd...

Rec		dgram	Bengal gram		Blac	ck gram	Gre	en gram	Other Pulses	
Zone	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)
NETZ	1.87	5032				0	2.64	5756		0
NEDZ	2.39	7302	5.84	2426	2.28	5759	3.47	7034		0
NDZ	4.06	7681	8.79	4880	4.41	6275	5.17	8734	3.20	4381
CDZ	2.00	4509	7.23	7465	9.37	5930	7.73	4401	1.99	4185
EDZ	2.19	3377	8.32	18890		0		0	3.62	5887
SDZ	4.78	8192		0		0	2.93	3887	1.73	2577
STZ	2.34	3841	13.08	9650		0	2.94	7350	7.05	-12228
NTZ		0		0	5.03	8154	6.54	9956	3.43	5078
HZ	1.85	-21227		0	5.53	7797	6.24	7350	7.83	6402
CZ		0		0		0		0		0
State Mean	2.13	4566	6.87	15720	3.30	8319	4.08	6495	4.53	5419
Service Provi	der									
ISAP	2.05	7039.86	0.00	0.00	2.42	4950.98	3.28	7102.23	0.00	0.00
John Deer	4.77	7921.43		0.00		0.00	3.20	7350.00		0.00
KALA	3.39	886.94		0.00		0.00		0.00		0.00
M & M	2.16	3670.70	6.01	15086.91	2.13	6566.52	2.89	6518.71	1.99	4027.53
SKDRDP	2.61	2609.29	8.85	4148.67	4.94	7480.07	6.50	9168.32	5.03	204.08
VST	2.43	6279.28	8.87	11440.25	6.96	5995.12	4.62	1143.77	2.25	3544.45
State Mean	2.13	4566.49	6.87	15719.60	3.30	8319.45	4.08	6495.37	4.53	5419.14

Table 8.29 Contd...

	Grou	ndnut	Sui	nflower	Ses	samum	C	astor	So	ybean	Other	Oilseeds
Zone	B:C ratio	Net returns * (Rs./ac.)	B:C rati	Net returns * (Rs./ac.)								
NETZ		0		0		0		0	2.44	4817		0
NEDZ	2.92	7701	6.29	7744	1.56	965		0	2.00	-2302	1.07	-2
NDZ	3.99	8167	4.91	6970		0	5.18	8325	3.25	10624	1.60	2040
CDZ	1.99	2261	3.43	4440		0		0		0		0
EDZ	4.67	-5505		8350		0		0		0		0
SDZ	2.73	9673		0	1.32	965		0		0		0
STZ	4.71	-7975		0		0		0		0		0
NTZ	2.58	7923	5.34	8044		0		0	2.63	2853		0
HZ	3.94	6888		0		0		0	4.01	5124		0
CZ	4.29	4195		0		0		0		0		0
State Mean	3.42	6338	4.68	4510	1.49	7363	5.18	8325	2.91	5213	1.20	436
Service P	rovider											
ISAP	2.30	1880	4.52	9388					2.44	4817		0
John Deer	3.22	5933	3.71	1991		0		0	2.00	491		0
KALA		0		0		0		0		0		0
M & M	3.46	4984	6.50	18065	1.56	965		0	2.00	-2302	1.07	-2
SKDRD P	4.29	9290	5.75	5222		0	5.18	8325	3.73	9246	1.60	2040
VST	2.20	-7793	3.33	12279	1.32	965		0	2.59	3849		0
State Mean	3.42	6338	4.68	4510	1.49	7363	5.18	8325	2.91	5213	1.20	436

Table 8.29 Contd...

	Cotton		Suş	garcane	Te	obacco	Mı	ulberry	Horticulture Crops		
Zone	B:C ratio	Net returns* (Rs./ac.)	B:C ratio	Net returns* (Rs./ac.)							
NETZ		0	4.87	14090							
NEDZ	2.75	6966	3.46	34210		0		-14500	18.08	190128	
NDZ	2.53	6783	4.58	16100		0		0	7.57	3913	
CDZ	2.85	6981	0.83	5710		0		0	3.94	17934	
EDZ			3.90	13204		0	5.99	16042	10.51	13790	
SDZ			4.34	9142		0	2.79	2321	2.45	8942	
STZ			4.61	3860	4.35	10326		0	5.16	8123	
NTZ	2.99	-3979	6.93	32334		0		0	14.45	44430	
HZ	3.05	11190	4.45	16498		0		0	4.73	2777	
CZ		0	1.37	1660		0		0	2.56	4891	
State Mean	3.13	5519	4.55	12580	4.35	10326	5.73	15151	7.90	19959	
Service Pro	vider										
ISAP	1.49	5574									
John Deer	1.94	-1067	3.32	19239		0	3.50	8125	4.72	11920	
KALA		0	1.97	5059		0		0		0	
M & M	3.22	5336	4.67	20991	4.35	10326		-14500	10.74	141971	
SKDRDP	3.14	7539	4.35	11742		0	6.38	24055	8.81	8798	
VST	3.02	6634	3.97	13061		0	4.31	6945	5.11	10506	
State	3.13	5519	4.55	12580	4.35	10326	4.73	15000	7.90	19959	
Mean	T					. C	1 4-	1 f	·		

Note: Increase in net returns and corresponding B: C ratio are due to several factors, of which farm mechanization is one of the major significant factors. Timely land preparation/ harvesting have resulted in efficient use of available moisture and nutrients effectively, thereby improving productivity and income.

Paddy: The difference in net income (Rs./ac.) ranged between Rs. 1038 (SDZ) and Rs. 6843 (NDZ) with a mean of Rs. 3266 across the zones (Fig 8.18) accounting for 5.0 % enhancement in net income. This is further supported by marginal improvement in B: C ratio (from 2.03 to 2.25). Among the zones, B: C ratio ranges between 1.51 (SDZ) and 3.12 (CDZ). With regard to service providers, Kala Chethana resulted in highest net income (Rs.14,383) and lowest (Rs. -1675) was recorded with ISAP. With regard to category-wise farmers, marginal farmers realized net benefit of Rs. 5592 followed by medium farmers (Rs. 4348). SC and ST farmers were benefited with Rs. 4173 and Rs. 3789, respectively after intervention of CHSC.

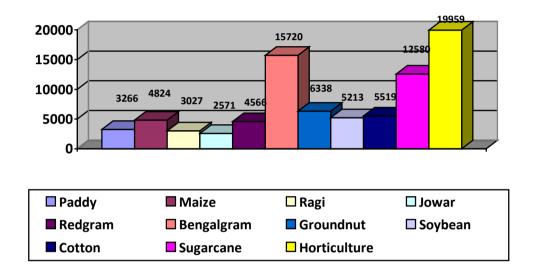


Fig 8.18: Incremental net returns (Rs. /ac) due to use of CHSC services across the zones

Net returns of paddy growers in respect of BF and NBF (control) were Rs.24,654 and Rs.22,033, respectively, yielding a net benefit of Rs.2621 (11.90%) due to CHSC intervention (Table 8.30 and Fig 8.19). Higher B: C ratio (2.25) was reported by BF compared to NBF (2.06).

Table 8.30: Comparison of income of beneficiary farmers with that of non-beneficiary farmers

Sl. No.	Cuana		Net income	B:C ratio			
SI. NO.	Crops	BF	NBF	DIFF	%	BF	NBF
1	Paddy	24654	22033	2621	11.90	2.25	2.06
2	Ragi	8551	2289	6262	273.57	1.53	1.14
3	Jowar	13812	10021	3791	37.83	2.78	2.33
4	Soybean	17325	6119	11206	183.13	2.91	1.64
5	Cotton	36028	16735	19293	115.29	3.13	1.94
6	Sugarcane	115439	83632	31807	38.03	4.55	3.44
7	Tobacco	66074	59250	6824	11.52	4.35	3.86
8	Mulberry	67465	62438	5027	8.05	5.73	5.16
9	Horticultural crops	188865	159551	29314	18.37	7.9	6.54

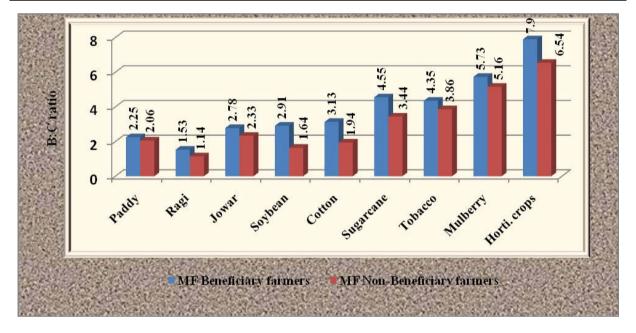


Fig 8.19: Crop-wise comparison of B: C ratio of beneficiary farmers with non-beneficiary farmers

Ragi: Increased net returns of Rs. 4824 accounting to net benefit of 129 % enhancement was noted due to CHSC. Among the zones, it ranged from Rs. 1373 (NDZ) to Rs. 5754 (EDZ). B: C ratio enhancement is marginal (from 1.41 to 1.98). Among service providers, John Deer accounted for higher net benefit of Rs. 4529 followed SKDRDP (Rs. 3793) and VST (Rs.3573) which may be due to better utilization of CHSC services by farmers.

An overwhelming increase in ret returns of Rs.6262 was obtained by BF due to CHSC when compared to control farmers (Rs.2289). Similarly, B: C ratio was higher with BF (1.53) when compared to NBF (1.14).

Maize: Increased net benefit of Rs. 3027 (32.56 %) was observed across the zones due to CHSC intervention. The net benefit ranged between Rs.1726 (HZ) and Rs. 7805 (EDZ). Among the different categories of farmers, marginal realised maximum net benefit (Rs.5815) followed by medium farmers (Rs.3815). There has been a marginal enhancement in B: C ratio (from 1.57 to 1.80) indicating the benefit from CHSC.

Jowar: Increased net benefit of Rs. 2571 (22.87 %) was realized across the zones due to CHSC intervention. Among different zones, it ranged between Rs. 2339 (NDZ) and Rs. 4303 (STZ). In jowar cultivation, women farmers played an important role in deriving a net benefit of Rs. 5144 followed by small farmers (Rs. 5099) and marginal farmers (Rs. 3551).

Net returns with BF and NBF were Rs.13,812 and Rs.10,021 respectively, accounting to net enhancement of Rs.3791 due to CHSC intervention. Higher B: C ratio was reported for BF (2.78), when compared to NBF (2.33).

Redgram: Increase in net returns (Rs/acre) across the zones obtained by farmers were Rs.4566. However, among different zones difference in net income (before and after CHSC) ranged between Rs. 3377 (EDZ) and Rs. 8192 (SDZ). B: C ratio has also increased from 1.71 to 2.13 due to use of farm machinery. Among different categories of famers, medium farmers gained a net benefit of Rs. 7609 followed by marginal farmers (Rs. 7132) and small farmers (Rs. 6188). Increase in B: C ratio was higher in small farmers (from 2.1 to 2.78).

Bengal gram: Increase in net returns (Rs. /acre) varied between Rs. 2426 (NEDZ) and Rs.18890 (EDZ) among the zones. Mean increase in net benefit comparing before and after CHSC was Rs. 15720. B: C ratio also increased from 4.65 to 6.87 indicating benefit derived by farmers due to use farm machinery. Among the service providers, KALA accounted for net benefit of Rs. 14383 followed by M & M (Rs. 4034) and SKDRDP (Rs. 3201). Among the category farmers, higher net benefit was realized by OBC farmers (Rs. 16,493) followed by medium farmers (Rs.11,768). Lowest net benefit (Rs. 8726) was with SC farmers. Higher increase in B: C ratio (from 6.89 to 8.32) was observed with ST farmers.

Black gram: Enhanced net income (Rs./acre) due to use of farm machineries in black gram production was Rs. 8320 across the zones. Among the zones, higher net benefit was reported in NTZ (Rs. 8154), HZ (Rs. 7797) followed by NDZ (Rs.6275). B: C ratio had also increased

from 2.18 to 3.30 due to adoption of farm machinery by the farmers. The services rendered by service providers also enabled enhancing net benefit to Rs. 7480 (SKDRD) followed by M & M (Rs. 6567) and VST (Rs. 5995)

Green gram: Net income (Rs./acre) of Rs. 6495 amounting to 42.11 % increase was noted due to intervention of CHSC across the zone. Among the service providers, higher benefit was reported due to services offered by SKDRD (Rs. 9169) and VST (Rs. 1143) being lowest. Among the zones, net benefit enhancement ranged between Rs. 3887 (SDZ) and NTZ (Rs. 9956).

Groundnut: Increase in net returns of Rs. 6338 (20.44 %) was obtained due to intervention of CHSC. Similarly, B: C ratio across the zone has also increased from 2.91 to 3.42. Higher net benefit (Rs.9391) was realised by SC farmers followed by OBC farmers (Rs.6772). The contribution of service providers for enhanced net benefit was higher with SKDRDP (Rs. 9290) followed John Deer (Rs.5933).

Sunflower: Increase in net return of Rs.4510 (18.26%) was obtained across the zone due to CHSC. Among different zones, net benefit ranged between Rs.4440 (CDZ) and Rs.8044 (NTZ) Higher net benefit due to services rendered by M & M (Rs.18065) and lowest by John Deer (Rs.1991). There has been marginal increase in B: C ratio from 3.96 to 4.68.

Castor: Castor being grown in NDZ, has resulted in to increase in net return of Rs.8325.

Soybean: Increase in net return of Rs.5213 across the zone was realized by beneficiary farmers on account of CHSC. It ranged from Rs.2853 (NTZ) to Rs.10624 (NDZ). Among the service providers, SKDRD accounted for net benefit of Rs.9246 followed by ISAP (Rs.4817).

Net returns obtained by BF and NBF (Control) were Rs.17325 and Rs.6119 accounting to additional returns of Rs.11206. Higher B: C ratio (2.91) due to CHSC was obtained by BF when compared to control farmers (1.64).

Cotton: Being a commercial crop of the state, increased net returns across the zone accounting to Rs.5519 (18.09%) was realized due to intervention of CHSC. Increase in net return ranged from Rs.6783 (NDZ) to Rs.11190 (HZ). There has been marginal increase in B: C ratio from 2.7 to 3.13. Among the category farmers, marginal farmers accounted for higher net benefit (Rs.19243) and medium farmers realized lowest increase in net return (Rs.3629).

Higher net returns (Rs.36028) were realised by BF due to CHSC, when compared to control farmers with net returns of Rs.16735 and B: C ratio of 1.94.

Sugarcane: About 12.23% increase in net benefit (Rs.12,580/ac) was realized by sugarcane growers. The higher difference in net benefit was realized by farmers of NEDZ (Rs.34,210) followed by NTZ (Rs.32,334). M & M was responsible for realizing higher net benefit (Rs.20,991) followed by John Deer (Rs.19,239). Increase in B: C ratio was rather marginal from 4.00 to 4.55. Among different categories farmers, marginal farmers were benefitted more due to CHSC services (Net benefit of Rs.39,794).

Net returns of Rs.1,15,439 were obtained by BF when compared to control farmer (Rs.83,632). The B: C ratio was also higher for BF (4.55) compared to NBF (3.44).

Tobacco: Increase in net return of Rs.10,326/acre was realised due to CHSC. Difference in B: C ratio, before (3.69) and after (4.35) was marginal increase.

Mulberry: Increase in net return of Rs.15,151/acre was obtained across the zones with reduction in cost of production by 5%. There has been an increase in B: C ratio from 4.49 to 5.73.

Among BF and NBF, higher net returns were realised by BFs (Rs.67,465) compared to NBFs (Rs.62,438).

Horticulture crops: Horticultural crops (which includes flowers, fruits, vegetables etc.,) realized a net benefit of Rs.19,959/ac (11.82%) across the zones. Among the different categories of farmers, higher net benefit of Rs.41,296 was realised by farmers belonging to ST category followed by marginal farmers (Rs.28,280).

Higher net returns were obtained by BF (Rs.1,88,865) compared to NBF (Rs.1,59,551) accounting to a net income enhancement of 18.37% due to CHSC intervention. B: C ratio was also higher at 7.90 with BF compared to NBFs (6.54).

The reduction in the cost of cultivation per acre across the crops due to reduced labour requirement in different zones is presented in Table 8.31. Maximum cost reduction was recorded in zone 4 (Rs.2714/ac) and minimum in zone 1 (Rs.990) depending on cropping pattern. Similarly, reduction in post-harvest losses varied in different zones ranging from 6.1 % (Zone 10) to 14.9 % (Zone 2) considering different types of cropping pattern followed in different zones.

Table 8.31: Impact of CHSC services on reduction of cost of cultivation and post-harvest losses

Zone	Reduction in cost of cultivation (Rs/ac)	Reduction in post-harvest losses (%)
NETZ	990	12.0
NEDZ	1207	14.9
NDZ	1956	9.7
CDZ	2714	13.2
EDZ	1954	9.6
SDZ	1634	7.0
STZ	1642	7.6
NTZ	2262	12.9
HZ	2206	10.5
CZ	1542	6.1
Mean	1775	10.3

Reasons for higher B: C ratio in different crops:

As compared to non-beneficiary farmers, the beneficiaries of CHSCs recorded higher B: C ratio in different crops due to following reasons:

- Reduced cost of cultivation
- Increased productivity due to timely sowing and timely harvesting
- Reduced post-harvest losses
- Reduced labour requirement

8.7 Extent of extension support and farmers' satisfaction

Two distinct aspects are covered in this objective. Extension support and customer satisfaction with quality of support service are addressed separately.

Extension service: Ideally, the beneficiaries should have been provided with scientific extension services like method of using the equipment/ machine, precision in their use for maximising the benefits, tips to increase their efficiency, strategies to be adopted to reduce drudgery of their use, how to economise their fuel consumption, etc. However, such services are not found in the original scheme itself. Even training of the tractor operator for precision

working is not included. Such being the case, it is not understandable, how the issue of extension support is a question of evaluation. No service provider has been providing any extension service to the farmers in any zone, excepting CHSC, Sirwara, which is a model centre, which has conducted demonstrations in different villages in the initial years to popularise their services. The farmers do not have access to training or advisories, in respect of efficient use of farm machinery, in the whole administrative set up, except limited scale of advices by Agricultural Universities directly to the farmers, through KVKs and NICRA Projects.

Customer satisfaction by quality of support service/ equipment:

During interviews with 3780 farmers spread across all ten agro ecological zones, the beneficiaries' satisfaction about the quality of service was investigated. The opinion of the beneficiary farmers is a true reflection of quality of the services by different service providers across ten different agro- ecological zones. The beneficiaries' opinions were collected in three categories, viz., 'highly satisfactory', 'satisfactory' and 'partially satisfactory'. The percentage of farmers expressing their opinions in each category were assigned with scores in a scale of 1 to 10 to offer more clarity in zone wise/ service provider wise differences. These scores have been presented in Figs 8.20 and 8.21.

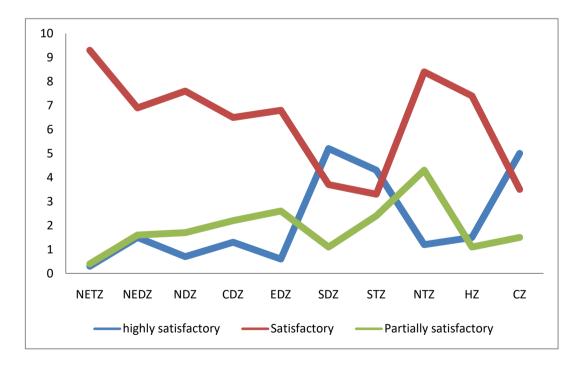


Fig 8.20: Zone-wise scale of satisfaction about CHSCs service

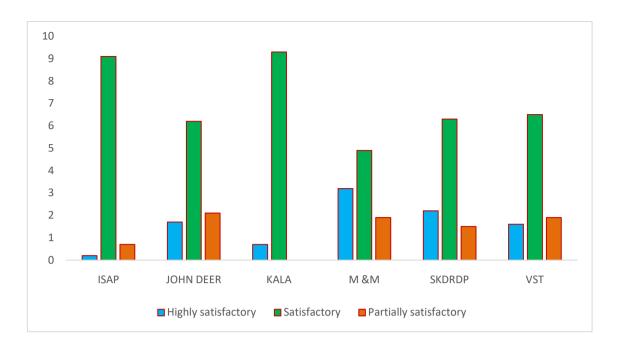


Fig 8.21: Service provider - wise scale of satisfaction about CHSCs service

In the overall analysis, 61.2 % beneficiaries expressed that they were satisfied with the quality of service by CHSC, while 21.9 % of them have conveyed that they were 'highly satisfied' and remaining 16.9% of them have given their opinions that they were 'partially satisfied'. This scoring clearly indicates that most of the beneficiaries were satisfied and very few (16.9%) have some reservations about the quality of service. Among the satisfied farmers, highly satisfied category is 21.9%, slightly more than partially satisfied category. Majority of them fall in the satisfied group (Table 8.32).

Considering the zone-wise differences in the scale of satisfaction, highly satisfied beneficiaries were more in number in zone 6, 7 and 10 as compared to other zones. Relatively the level of satisfaction poor (<10%) in zones 1, 2 and 5, while other zones recorded a satisfaction from 11% to 50%. Higher level of satisfaction was recorded in zone 1 (93 %), with relatively poor level of satisfaction in zones 2, 3, 4, 8 and 9 (65 to 75 %). Zones 6, 7 and 10 recorded lower scores of 32 to 36 % under 'satisfied' group. Partially satisfied group was relatively smaller (lesser than 5% beneficiaries) in zones 1 and 8 and zones 4, 5 and 7 recording 21 to 25 % beneficiaries. Remaining zones recorded values between 6 and 20 % farmers opining partial satisfaction. The results indicated that in all the zones, the share of satisfied beneficiaries is higher than partially satisfied category. The reason ascribed for higher share of highly satisfied beneficiaries in 6.7 and 10 include more efficient management of centres by service providers. The service providers like SKDRD and M & M have scored 21 and 32 % respectively in the 'highly satisfied' group. The service providers

like KALA and ISAP, who have smaller share in the total number of CHSCs in the state, have scored 91 to 92 % satisfied beneficiaries as compared to 61 to 64 % recorded by SKDRDP, VST and John Deer.

The satisfaction of beneficiaries is a reflection of multiple factors regarding service. Among them, main factors like quality of equipment, waiting period to get service, hiring rates and availability of required equipment and maintenance of equipment are directly related to satisfaction. Other factors like reduction in labour requirement, reduction in cost of cultivation and increase in net income indirectly influence satisfaction (Tables 8.33 and 8.34). The satisfaction level of the beneficiaries is corroborated by evidences of these direct and indirect factors.

Table 8.32: Opinion of beneficiary farmers in offering satisfactory services

ZONE		OPINION (counts & percent)									
ZONE	Highly satisfied	Satisfied	Partially satisfied	All							
NETZ	3	98	4	105							
NEIZ	2.86	93.33	3.81	100.00							
NEDZ	52	243	55	350							
NEDZ	14.86	69.43	15.71	100.00							
NDZ	52	554	129	735							
NDZ	7.07	75.37	17.55	100.00							
CDZ	37	183	60	280							
CDZ	13.21	65.36	21.43	100.00							
EDZ	31	385	144	560							
	5.54	68.75	25.71	100.00							
SDZ	308	218	69	595							
SDZ	51.76	36.64	11.60	100.00							
STZ	150	114	86	350							
	42.86	32.57	24.57	100.00							
NTZ	24	177	9	210							
NIZ	11.43	84.29	4.29	100.00							
HZ	43	207	30	280							
п	15.36	73.93	10.71	100.00							
CZ	104	73	33	210							
CZ	49.52	34.76	15.71	100.00							
All Zones	804	2252	619	3675							
All Zolles	21.88	61.28	16.84	100.00							

SERVICE PROVIDER				
ISAP	2	96	7	105
	1.90	91.43	6.67	100.00
JOHN	79	280	96	455
	17.36	61.54	21.10	100.00
KALA	5	65	0	70
	7.14	92.86	0.00	100.00
M & M	272	410	158	840
	32.38	48.81	18.81	100.00
SKDRD	349	1016	245	1610
	21.68	63.11	15.22	100.00
VST	97	385	113	595
	16.30	64.71	18.99	100.00
All	804	2252	619	3675
	21.88	61.28	16.84	100.00

Table 8.33: Zone-wise reduction in labour cost and cost of cultivation and increase in net income

Zone	Labour reduction (nos.)	Reduction in cost of cultivation (Rs/ac)	Increase in net income (Rs/ac)
NETZ	1.33	982.53	2373.70
NEDZ	1.56	1224.07	2641.25
NDZ	2.04	1894.03	4374.58
CDZ	3.49	2604.75	7835.45
EDZ	2.35	1907.29	6491.62
SDZ	2.97	1614.66	5237.36
STZ	2.72	1635.26	4139.44
NTZ	2.46	2252.97	5461.86
HZ	2.46	2175.57	4125.40
CZ	3.34	1545.89	3253.42
Average	2.32	1749.75	4539.61

Table 8.34: Service provider -wise reduction in labour cost, cost of cultivation and increase in net income

mercuse in net meome						
Service provider	Labour reduction (nos.)	Reduction in cost of cultivation (Rs/ac)	Increase in net income (Rs/ac)			
ISAP	1.35	1283.87	2287.82			
JOHN	2.48	1762.69	4041.53			
KALA	2.10	1956.65	4063.58			
M & M	1.95	1386.81	3551.26			
SKDRDP	2.54	1934.32	4938.18			
VST	2.74	2162.54	7038.16			
Average	2.32	1749.75	4539.61			

Quality of equipment: Beneficiary is invariably more satisfied, when the equipment/ machinery of high quality is provided. It is the onus of the service provider to rent out good quality equipment/ machines, whenever a farmer approaches CHSC. But whether good quality equipment was provided in practice is the basic issue concerning the farmer. One of the direct questions posed to 3750 beneficiaries was about the quality of equipment provided by CHSC. In overall analysis, it was found that 99.24 % farmers expressed satisfaction about the quality of equipment/ machines. All the agro ecological zones uniformly recorded extreme satisfaction about the quality of equipment (99 - 100% farmers were satisfied). Even in case of the service providers, all of them provided good quality equipment (99.33 to 100 % farmers satisfied) in all the centres, across the service providers (Table 8.35)

Table 8.35: Opinions of beneficiary farmers on quality of equipment provided by CHSC

	RESPONSI	E			
ZONE	(counts & percent)				
	Yes	Total			
NETZ	104	105			
NETZ	99.05	100.00			
NED7	349	350			
NEDZ	99.71	100.00			
ND7	720	735			
NDZ	97.96	100.00			
CD7	277	280			
CDZ	98.93	100.00			
ED7	560	560			
EDZ	100.00	100.00			
CD7	591	595			
SDZ	99.33	100.00			
STZ	349	350			
	99.71	100.00			
NITZ	209	210			
NTZ	99.52	100.00			
11/7	278	280			
HZ	99.29	100.00			
67	210	210			
CZ	100.00	100.00			
All Zanas	3647	3675			
All Zones	99.24	100.00			
Service provider					
ISAP	104	105			
	99.05	100.00			
JOHN	440	455			
	96.70	100.00			
KALA	70	7(
	100.00	100.00			

M & M	838	840
	99.76	100.00
SKDRDP	1604	1610
	99.63	100.00
VST	591	595
	99.33	100.00
All	3647	3675
	99.24	100.00

Waiting period to get service: Waiting period to get hiring service is a very important criterion in deciding the satisfaction of beneficiary. If the farmer is made to wait for a long period, he may not carry out the timely of operation and hence gets dissatisfied. On an average the waiting period varied from 0 to 3 days. Nearly 33.7 % farmers were able to get instant service, while 36.5 % farmers had to wait for 2 days on an average and 22.6 % farmers waited for only one day to avail the service. Negligible 6.2% farmers had to wait for 3 days to get service by CHSC. Most farmers are using the services of CHSC for land preparation as it is needed to prepare the land before the soil moisture is lost. Considering this, the efficiency of providing instant service (on demand) was limited to 33.7% farmers, while 59.1% farmers had to wait for 1-2 days to avail the service. Although waiting period varied across the zones, zone-wise differences are irrelevant, as the waiting period is a function of service providers' efficiency rather than zone. Service providers like VST, M &M and SKDRDP were able to provide instant service on demand (zero day waiting period) to 34 - 45 % farmers, while such instant service was not made available by ISAP and KALA, and John Deer was able to provide instant service to 21.3 % farmers. While, 83 to 85% farmers availing the services of Kala and ISAP had to wait for 2 days, 43-45 % of them had to wait for 2 days in case of M & M / John Deer as compared to other service providers (28%). Nearly 8 to 8.3% farmers had to wait for even 3 days and very few farmers had to even wait for 8-9 days to avail the service by SKDRDP. In the case of John Deer, the waiting period was up to 3 days for 6.5 % farmers and up to 4 days for very few farmers. The general impression of most farmers about waiting period is that waiting for more than 1 day is not ideally suited under quick soil moisture losing conditions (Table 8.36).

Table 8.36: Extent of waiting period required to avail the equipment from CHSC

Zone				Waiting 1	period (day	/s)				All
	0	0.5	1	2	3	4	5	8	9	
NETZ	1	4	24	76	0	0	0	0	0	105
NEIZ	0.95	3.8	22.9	72.4	0.0	0.0	0.0	0.0	0.0	100.0
NEDZ	51	0	61	233	5	0	0	0	0	350
NEDZ	14.6	0.0	17.4	66.6	1.4	0.0	0.0	0.0	0.0	100.0
NDZ	121	0	182	428	3	0	0	0	1	735
NDL	16.5	0.0	24.8	58.2	0.4	0.0	0.0	0.0	0.1	100.0
CDZ	43	10	42	100	73	10	1	0	1	280
CDZ	15.4	3.6	15.0	35.7	26.1	3.6	0.4	0.0	0.4	100.0
EDZ	132	0	53	271	102	2	0	0	0	560
EDZ	23.6	0.0	9.5	48.4	18.2	0.4	0.0	0.0	0.0	100.0
SDZ	436	0	94	47	16	2	0	0	0	595
SDZ	73.3	0.0	15.8	7.9	2.7	0.3	0.0	0.0	0.0	100.0
STZ	193	0	54	88	13	1	0	1	0	350
	55.1	0.0	15.4	25.1	3.7	0.3	0.0	0.3	0.0	100.0
NTZ	68	1	130	9	2	0	0	0	0	210
NIZ	32.4	0.5	61.9	4.3	1.0	0.0	0.0	0.0	0.0	100.0
HZ	73	0	124	70	12	1	0	0	0	280
п	26.1	0.0	44.3	25.0	4.3	0.4	0.0	0.0	0.0	100.0
CZ	121	0	68	21	0	0	0	0	0	210
CZ	57.6	0.0	32.4	10.0	0.0	0.0	0.0	0.0	0.0	100.0
All Zones	1239	15	832	1343	226	16	1	1	2	3675
All Zolles	33.7	0.4	22.6	36.5	6.2	0.4	0.0	0.0	0.1	100.0

Service pro	ovider									
ISAP	0	4	13	88	0	0	0	0	0	105
	0.0	3.8	12.4	83.8	0.0	0.0	0.0	0.0	0.0	100.0
JOHN	97	1	118	208	30	1	0	0	0	455
	21.3	0.2	25.9	45.7	6.6	0.2	0.0	0.0	0.0	100.0
KALA	2	0	7	60	0	0	0	0	1	70
	2.9	0.0	10.0	85.7	0.0	0.0	0.0	0.0	1.4	100.0
M & M	313	0	152	362	13	0	0	0	0	840
	37.3	0.0	18.1	43.1	1.5	0.0	0.0	0.0	0.0	100.0
SKDRDP	559	10	440	457	135	6	1	1	1	1610
	34.7	0.6	27.3	28.4	8.4	0.4	0.1	0.1	0.1	100.0
VST	268	0	102	168	48	9	0	0	0	595
	45.0	0.0	17.1	28.2	8.1	1.5	0.0	0.0	0.0	100.0
All	1239	15	832	1343	226	16	1	1	2	3675
	33.7	0.4	22.6	36.5	6.2	0.4	0.1	0.1	0.1	100.0

Hiring rates: The satisfaction of beneficiaries is directly linked to the hiring rates of equipment / machines, as beneficiaries would like to get best possible service at cheaper rates. As a matter of fact, the entire scheme is designed to make the farm machinery/ equipment available to the farmers at cheaper rates. The rates at which the machines/ equipment are hired to the farmers are decisive in availing the service and they also affect cost effectiveness of hiring equipment/ machines. It is generally expected that all CHSCs will keep hiring rates lower than local hiring charges. For this reason, CHSCs are not allowed to fix hire rates on their own. But hire rates are decided in District Implements Committee, under the chairmanship of CEO, ZP. These rates are deliberately kept affordable and attractive to most farmers. In this background, 99% farmers expressed satisfaction about the hire rates. All the farmers across all the zones and all the service providers have uniformly expressed satisfaction about the rates and their affordability. In fact, in some CHSCs, lower hire rates fixed for CHSC have invited protests by local equipment owners because of lower hire rates fixed by CHSC (Tables 8.37 and 8.38).

Table 8.37: Opinions of beneficiary farmers on approved hire charges by the CHSC

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	105
NEIZ	100.00
NEDZ	349
NEDE	99.71
NDZ	735
1102	100.00
CDZ	277
	98.93
EDZ	560
LDE	100.00
SDZ	587
552	98.66
STZ	337
	96.29
NTZ	210
IVIZ	100.00
HZ	280
112	100.00
CZ	210
	100.00
All ZONES	3650
All ZUNES	99.32

Table 8. 37 Contd...

Service provider	Yes
ISAP	105
	100.00
JOHN	455
	100.00
KALA	70
	100.00
M & M	826
	98.33
SKDRDP	1600
	99.38
VST	594
	99.83
All	3650
	99.32

Table 8.38: Opinions of farmers regarding hire charges for the equipment provided by \mathbf{CHSC}

ZONE	RESPONSE (counts & percent)						
ZONE	High	Medium	Low	All			
NIETZ	1	52	52	105			
NETZ	0.95	49.52	49.52	100.00			
NEDZ	11	150	189	350			
NEDZ	3.14	42.86	54.00	100.00			
NID7	47	418	270	735			
NDZ	6.39	56.87	36.73	100.00			
CDZ	6	187	87	280			
CDZ	2.14	66.79	31.07	100.00			
EDZ	3	397	160	560			
EDZ	0.54	70.89	28.57	100.00			
SDZ	3	196	396	595			
SDZ	0.50	32.94	66.55	100.00			
STZ	69	136	145	350			
	19.71	38.86	41.43	100.00			
NTZ	1	125	84	210			
NIZ	0.48	59.52	40.00	100.00			
HZ	27	149	104	280			
п	9.64	53.21	37.14	100.00			
C7	1	88	121	210			
CZ	0.48	41.90	57.62	100.00			
All ZONES	169	1898	1608	3675			
All ZUNES	4.60	51.65	43.76	100.00			

Table 8. 38 contd...

Service provider				
ISAP	1	17	87	105
	0.95	16.19	82.86	100.00
JOHN	2	272	181	455
	0.44	59.78	39.78	100.00
KALA	1	19	50	70
	1.43	27.14	71.43	100.00
M & M	51	373	416	840
	6.07	44.40	49.52	100.00
SKDRDP	113	917	580	1610
	7.02	56.96	36.02	100.00
VST	1	300	294	595
	0.17	50.42	49.41	100.00
All	169	1898	1608	3675
	4.60	51.65	43.76	100.00

Availability of required equipment: Satisfaction of beneficiaries on the services of CHSC is also directly related to timeliness of availability of required equipment/ machine. When the farmers approach CHSC with a request for specific equipment/ machine, they can be satisfied only when they are made available in time. Although all CHSCs attempt to provide the required equipment to all the beneficiaries in time, non-availability may be caused due to repairs or shortage of such equipment.

In the overall analysis, 94.04 % farmers were able to get the required equipment/ machine on time, and only a smaller section of beneficiaries failed to get timely service. Across the zones, timely availability of equipment/ machines varied. Zones 3, 8 and 10 recorded higher score of farmers (98-100%) expressing satisfaction about timely availability, while zones 1,4,5 and 6 recorded 90-91% farmers expressing satisfaction about timely availability. SKDRDP, John Deer, M & M, Kala and VST recorded 92-100 % farmers expressing timely availability of equipment/ machinery, while the remaining service providers recorded 87.6% farmers expressing satisfaction about timely availability of equipment/ machinery (Table 8.39).

Table 8.39: Opinion of beneficiary farmers on timeliness of availability of equipment

ZONE	RESPONSE (counts & percent)
ZONE	Yes
NETZ	95
1012	90.48
NEDZ	331
	94.57
NDZ	724
	98.50
CDZ	255
	91.07
EDZ	506
	90.36
SDZ	543
CTZ	91.26
STZ	93.43
	207
NTZ	98.57
	258
HZ	92.14
	210
CZ	100.00
A 11 77	3456
All Zones	94.04
Service provider	
ISAP	92
	87.62
JOHN	447
	98.24
KALA	70
	100.00
M & M	803
	95.60
SKDRDP	1488
	92.42
VST	556
	93.45
All	3456
	94.04

Maintenance of equipment/ machines: In the overall analysis, in all centres, machines/ equipment were maintained properly to the satisfaction of the users (99.5 % respondents opined that maintenance was good). Except for minor reduction up to 97.1% of farmers' opinion in zone 8, all the other zones recorded good maintenance of machine/ equipment (98.9 to 100% farmers expressed satisfaction about the maintenance of machinery/

equipment). About 98.7 to 100 % of the interviewed farmers indicated that maintenance of machinery/ equipment was satisfactory across all the service providers (Table 8.40).

Table 8.40: Opinion of beneficiary farmers on maintenance of equipment by CHSC

ZONE	RESPONSE (counts & percent)		
ZONE	Yes		
NETZ	105		
NEIZ	100.00		
NEDZ	350		
	100.00		
NDZ	735		
	100.00		
CDZ	279		
	99.64		
EDZ	559		
	99.82		
SDZ	589		
	98.99		
STZ	350		
	100.00		
NTZ	204		
	97.14		
HZ	98.93		
	210		
CZ	100.00		
	3658		
All Zones	99.54		
Service provider			
ISAP	105		
	100.00		
JOHN	449		
	98.68		
KALA	70		
	100.00		
M & M	839		
	99.88		
SKDRDP	1603		
	99.57		
VST	592		
	99.50		
All	3658		
	99.54		

Reduction in labour requirement: Reduction of labour requirement will reduce the cost of cultivation thereby increasing net earnings of the farmers. Hence, reduction in labour requirement by adopting farm mechanization is an indicator of farmers' satisfaction. The number of labourers saved per season per farm is already documented in Tables 8.6 and 8.7.

Reduction in cost of cultivation: As the labour requirement is reduced due to farm mechanisation, the cost of cultivation obviously decreases. The extent of reduction in cost of cultivation is computed based on the survey of the beneficiary farmers and presented in Table 8.27. On an average, cost of cultivation was reduced by Rs 1749/ acre. Maximum cost reduction (Rs 2604/acre) was noticed in zone 4 followed by Rs 2252/acre in zone 8. Minimum cost reduction was recorded in zone 1 (Rs 982/acre). These variations across the zones may be due to differences in cropping pattern and extent of mechanisation achieved in the crop concerned. Reduction in cost of cultivation also varied across the service providers. Maximum cost reduction was observed in beneficiaries covered by VST Tillers (Rs 2162/acre), while minimum cost reduction (Rs 1283/acre) was noticed in beneficiaries covered by ISAP. Service provider-wise differences may be due to differences in the quality of service provided by them.

Increase in net income: Net income may rise due to reduced cost of cultivation or increase in productivity or even higher market prices. On an average, income rose by Rs 4539 /acre (Table 8.27). Highest rise in income was noticed in zone 5 (Rs 6491/acre) and minimum in zone 1 (Rs.2373/acre). Although reduced cost of cultivation might have contributed to rise in net income, more important impact was that of remunerative prices observed across the zones. The farmers covered by VST Tillers recorded highest rise in net income (Rs 7038/acre), while the farmers covered by ISAP recorded lowest rise in net income (Rs 2287/acre)

8.8 Documentation of the best practices in custom hire service centres

Most of the 335 CHSCs established from 2014-15 to 2016-17 have faced practical difficulties in offering the service to the farmers due to one or other reason. But, two centres namely Sirwara (Raichur district.) and Arabhavi (Belgaum district.) were considered as model centres. As mandated in ToR, these two centres were also studied in detail to know best practices adopted by them, which have made them model centres. Other CHSCs also

could adopt these practices and run the centres on sustainable basis with good service as well as higher profit. These best practices are listed below:

- i. Generate sufficient demand for farm machinery and equipment stocked at the centre for at least 10-11 months to avoid off-season burden of overhead expenses. This could be done in the following ways:
 - a. By planning year-round operations in the area (covered by CHSC) and identification of village-wise/month-wise operations, it is possible to increase the hiring period. For example, wherever double cropping is possible
 - b. In rainfed and irrigated areas, operations could be spread for 10-11 months.
 - c. Popularising the activities of CHSC in the area of operation by frequent demonstrations on equipment operation, equipment shows etc.
 - d. By keeping the CHSC hire rates lower than local hire rates, it is possible to attract more farmers to seek the service for farm mechanisation.
 - e. By keeping available equipment in good condition by quick repairs, consistent demand can be created, as the centre's name becomes iconic with good quality equipment.
 - f. Sending SMS messages to all the farmers in the jurisdiction of CHSC about the availability of machines/ equipment, so that the farmers are motivated to avail the services of CHSC
 - g. Possibility of creating an App for booking the equipment, knowing their availability could be explored.
- ii. As against awarding franchise, direct management of CHSC by the service providers can be more rewarding in terms of commitment to the objectives, quick solutions to the problems, reduced operational problems. Farmers as well as franchisee tractor dealers have their own primary interest to attend to on priority and CHSC work comes as second priority with reduced attention, leading to poor coverage/ penetration, poor maintenance of equipment, irregular and belated hiring affecting the quality of service.
- iii. Maintaining transparency in booking, hiring charges structure, allotment of machines and other transactions of CHSC serve as confidence building measure and make the business sustainable in long run.
- iv. In long distance services, combining the requirements of group farmers of the same villages would reduce the overhead cost on transportation

- v. Appointing permanent managers and permanent drivers, who stay in the same village, is absolutely important in maintaining good quality and providing timely service.
- vi. Good salary structures to both drivers and managers also a determinant of quality of service. Good drivers on time, when they are needed, must be arranged, by keeping standbys.
- vii. Local mechanic should be identified in any village nearer to CHSC to attend minor repairs to the machines/ equipment quickly so that precious time is saved, thereby enhancing the utility of the said machine/ equipment.
- viii. Training of drivers for precise field operations and for good quality handling of machines will go a long way in establishing good clientele based on confidence level of the farmers on good quality work
 - ix. Inter CHSC transfer of machines/equipment will ensure that equipment kept idle in one centre is used efficiently in other centre leading to additional coverage of area and extra revenue generation.
 - x. Identifying machine/ equipment requirement in each centre from time to time by frequent survey is necessary to keep the demand constantly. The list of requirements, including new machines like boom sprayers, balers, IP sets, power weeders, combine harvesters, multi crop threshers, could be submitted to the Department for approval. The department should quickly approve them and initiate the purchase process.
 - xi. Taking up allied activities to cover part of the establishment costs in the off season will convert loss making centres into profit making ones. Such allied activities could include micro finance (as dome by SKDRDP), services of post-harvest processing, input distribution, facilitating market related activities.
- xii. Instead of adopting ad-hoc decisions on deciding number of machines/ equipment to be stocked at each CHSC, adequacy of their number should be decided on the basis of demand analysis looking into the past 3-5 years data. This will reduce idling time of machines not in great demand.
- xiii. Scientific cost analysis and economic feasibility studies should be initiated about the use of every equipment/machine in relation to their demand pattern before the machinery/ equipment is suggested to be stocked at CHSCs. This will help to decide whether all new machines/ equipment demanded by the farming community can be part of CHSC or not [For example, Diggers and JCBs are in demand. Proper study is necessary to determine whether it is feasible to stock them or not]

8.9 Strategies to improve the effectiveness of the scheme

By and large, the scheme Krishi Yantra Dhare is a successful scheme helping the farmers of Karnataka to intensify their farm mechanisation component in farming without investing on machineries and equipment. As many as 98 % of beneficiary farmers have expressed that Krishi Yantra Dhare scheme should be continued in future years, as a strategy to save the labour, as means of reducing cost of cultivation, as a measure to improve the timeliness of agricultural operations thereby increasing the agricultural production and income.

Thorough scientific analysis of exhaustive data collected during the evaluation of Krishi Yantra Dhare scheme coupled with detailed interaction with all stake holders of the scheme has led to the following recommendations on improving the scheme in future years. These recommendations could serve as guidelines for refurbishing and modernising the existing scheme with more thrust on some of weaker areas of the present scheme. While social equity and economic access to costly farm machineries and their accessory equipment have been the main-frame objectives of present scheme, future Krishi Yantra Dhare scheme should focus more on practical strategies to extend the benefits of custom hiring scheme to all beneficiaries. The coverage of the present scheme is poor in some centres for a number of reasons and it is necessary to devise the methods to expand the operations. Improving the efficiency of presently running CHSCs by redesigning the scheme implementation process, reviewing the method of allocating the centres to service providers as well as inducing many efficiency increasing practices in the currently running CHSCs. Many strategies to improve the working of CHSCs were also discussed during interaction sessions with service providers. Based on the exhaustive data collected from primary and secondary sources and after their analysis, the following suggestions are made to make the programme more effective and beneficial to the farming community.

1. Coverage of all the farmers of the villages in their respective jurisdiction needs to be increased quickly to achieve realistic social equity. To improve coverage, the centres not only need to adopt strategies to popularise but also stock quality machineries/ equipment in sufficient numbers. None of the centres has adopted any strategy to reach all the farmers of a village/ reach all villages of the respective service area, except model CHSCs managed by SKDRDP. The service is, at present, on the basis of farmers approaching voluntarily for service. The intensity of service is observed to be inversely proportional to distance of a village from CHSC.

- 2. Due to poor coverage, some centres face dearth of requests/ orders for hiring either because of poor awareness or because of shortage of required machinery/ equipment in sufficient number during the time of their peak requirement. Non-coverage of interested farmers can only be addressed by improving the awareness, maintaining the quality standards, appointing regular drivers.
- 3. It is necessary to establish CHSC in all hobli headquarters, as CHSCs have undisputedly helped the farmers in overcoming labour shortage and attending to the operations timely. This is in line with the recommendations of NABARD. Due to reduced distance between centre and villages (by establishing CHSCs in all hoblis), faster and full coverage of the entire jurisdictional area of CHSC is possible.
- 4. However, the present scheme of inviting the service providers and extent of funding needs to be reviewed to make the scheme attractive to many business firms/ service providers. The perception that manufacturers of machinery/equipment may offer better services than non-manufacturing firms is adequately disproved in this study, as evidenced by efficient and effective service provided by SKDRDP (a non-manufacturer service provider). Hence, in future years, other business models to include and attract other types of service providers could be tried. A non-manufacturing firm can handle any machine/ equipment with no bias, while manufacturer service providers invariably try to promote their own machines/ equipment- even if not efficient for a given situation.
- 5. To increase the coverage of farmers in each village of service area, a new model of hiring besides CHSC model, could be studied for the feasibility. For example, new model could encourage private machinery/ equipment owners to offer the hire services whenever their machinery/ equipment remain idle. New model could also encourage app-based service to book and get a service from other farmers, who have unutilized equipment/ machinery.
- 6. Maintaining the quality of machinery/ equipment does depend not only on quick repairs but also on freedom of choosing the brand/ HP/type of equipment based on the ground level survey each year. Restrictions like the Department insisting on purchase of specific brand/ specific HP/ specific equipment based on L₁ concept of tendering invariably affects the quality of equipment and service badly. The method of fixing the type/ quantity/ brand of equipment and machineries needs to be relooked for higher coverage and higher efficiency.

- 7. The method of release of funds from the Department needs to be reviewed, as most CHSCs complain that grants are not released quickly. Further, maintenance grants initially provided for a few years are stopped and many CHSCs are facing financial crunch to maintain CHSC.
- 8. Although, it is necessary to carry out field-level survey by the service provider in the service area of each CHSC and assess the type/ number of machineries and equipment and get the list approved by District Implements Committee, at least 25 % sample CHSCs were using the list of equipment approved a few years back. In a few CHSCs, such survey was not conducted for the last two to three years at all. Whenever such list is approved, most CHSCs have stocked the equipment/ machinery as per approved list either due to shortage of funds to purchase new machineries/ equipment or due to negligence of the management. Cumulative effect of all these is reflected on the quality of service and coverage. On priority basis, all ADAs of respective taluks and concerned JDAs should monitor conduct of survey regularly, approve the list and insist on scrupulously following the list of the equipment/ machineries stocked.
- 9. Timeliness of providing service is crucial not only to attract more farmers to use the service but also to improve the use of a given machinery/ equipment. In the present study, many beneficiaries have expressed that they had to wait 2-3 days to get the service. The waiting period could be reduced by keeping the desired machinery/ equipment in more numbers, which again depends on the effective demand survey to be carried out by the service providers yearly.
- 10. Wherever survey of villages in the jurisdiction of service provider is carried out, farmers' opinion on inclusion of new equipment needs to be considered, as many farmers suggested one or other new equipment to the concerned CHSC. Further, a provision must be made to reduce the unwanted equipment / machineries either by transferring them to other centres or by writing them off, if unserviceable.
- 11. Although in most CHSCs, the rates for hiring the machineries/ equipment are lower than prevailing market rate (in such village); in 2-3 CHSCs (Chamarajanagar district) the rates for hiring were reported to be higher than the prevailing market rates. To prevent such instances, monitoring by the concerned AO/ADA needs to be strengthened.
- 12. The efficiency of running a CHSC by getting sustainable flow of orders is higher in centres run by SKDRDP than in other service providers. This is because they have linked CHSC activity to their micro finance scheme through their self-help groups.

This has led to quick popularity of service resulting in higher order rates. The CHSCs run by manufacturers and others, on the other hand, invariably do not have such activities resulting in lack of full work especially during non-peak period resulting in unsustainable business. Hence, it is necessary to start other village level business activity to make present CHSC sustainable, as maintaining the staffs during off season is challenging activity. Such activities could include inputs distribution, facilitating marketing of produce and servicing of machineries.

- 13. The salary structure / terms of appointment of staff differs from one CHSC to another. It was observed during the evaluation that some managers are not paid adequately and most centres owned by manufacturing companies have not kept permanent drivers but depend on any available temporary driver when order is received. This has led to poor service and the farmers invariably choose alternate private sources of machinery where they get service on time.
- 14. The extension advisory service to the farmers about the time of use, precision of use, type of machinery/ equipment are not provided by any CHSC at all. This issue needs to be solved by providing certain administrative measures or redefining the role of AO of the concerned RSK attached to CHSC.
- 15. The present scheme has no scope to offer training to the beneficiary farmers/ drivers of CHSC/ managers of CHSC by qualified master trainers about the selection of equipment/ machinery, operational efficiency of machine/ equipment, ways to reduce the time of use, ways to make save the labour by use of farm machinery, ways to maintain the machine/ equipment in usable efficiency etc. Such training facilities should be established at least in 10-15 centres in the state at the Government cost so that the beneficiary farmers/ drivers/ managers are trained to offer good quality service.
- 16. The equity issue, so far as covering small and marginal farmers, scheduled caste/ scheduled tribe farmers/ women farmers, is not included in the present evaluation because the business model adopted by all CHSCs related to offering the service on 'first-come-first-serve' basis and on full payment of service charges. All CHSCs have provided the service to the farmers not discriminating them against certain categories. Alternate models could be developed in future, wherein this service could be given to specific category of the farmers on subsidised rates or entire service could be reserved for specific groups. However, the economic viability of this proposal needs to be decided whether it is practical to adopt such models.

- 17. The distinction between centres under Slab I (Rs 75 lakh grants) and Slab II (Rs 40 lakh grants) is not made based on sound rationales. Considering Kolar and Chikkaballapura districts as mono-cropping districts is not correct, as mono-cropping is followed in many other parts of the state. In fact, these two districts have sizable area under double cropping. Further, Malnad regions require machineries useful for plantation crops and their machinery requirement cannot be considered as small. Hence, this discrimination among regions to make farm machinery available should be dispensed with in all future programmes.
- 18. Rationalisation of transportation charges levied on such farmers, whose land is more than 5 Km away from CHSC, is necessary. At present, they are levied with extra charges @ Rs 10-12/Km making the service less attractive and costly for the farmers. Without burdening the farmers, steps to compensate the extra charges borne by the CHSCs may be adopted in providing the service to far-off places. One suggestion is to open such centres in every Gram panchayat, so that the distance is not a season for non-service.

9. FOCUS GROUP DISCUSSIONS

Focus group discussions (FGD) are an integral part of the Terms of Reference (ToR) of Evaluation of Krishi Yantra Dhare Scheme in Karnataka, at the time of awarding the evaluation study to Plus Trust by Karnataka Evaluation Authority. The primary aims of conducting such discussions include collection of important qualitative data by indirect way of discussions in support of vast primary data. Discussions were carried out by raising pre- decided key questions and eliciting the responses to such questions, from the members who attended such meetings.

Such meetings were organised with active participation of Assistant Directors of Agriculture of the concerned taluk along with the concerned Agricultural Officers working with him/her. Besides these officials, FGDs consisted of managers of concerned CHSCs, progressive farmers of the beneficiary region as well as representatives of local GP/ TP. The FGDs were organised in the premises of the concerned CHSCs at prefixed dates, depending on the convenience of all the members.

Selection of CHSCs for Focus group discussions

The ToR of the evaluation scheme insisted on conducting 20 FGDs in 10 agro-climatic zones of Karnataka duly covering all service providers in the proportion of their participation in Krishi Yantra Dhare scheme (Table 9.1). The CHSCs selected for FGD represented all the agro-climatic zones as shown in the table. The following CHSCs were selected for conducting FGDs:

Table 9.1: Details of FGDs conducted

Sl No	Name of CHSC	Name of service provider	Taluk	District	Agro climatic zone	Date of conducting FGD
1	Chandrabhanda	SKDRDP	Raichur	Raichur	II	8.8.2019
2	Hulihyder	SKDRDP	Gangavati	Koppal	III	28.8.2019
3	Hosur	SKDRDP	Gowribidnur	Chikkaballapur	V	7.9.2019
4	Arasikere (Jajur)	SKDRDP	Arasikere	Hassan	IV	18.9.2019
5	Veerapur (Kudlagere)*	SKDRDP	Bhadravati	Shimoga	VII	18.9.2019
6	Govinkovi	JOHN DEER	Honnali	Davanagere	VII	19.9.2019
7	Jayapur	M&M	Mysore	Mysore	VI	7.9.2019
8	Nayakanahatti	VST	Challakere	Chitradurga	IV	12.9.2019
9	Anandpur	SKDRDP	Sagara	Shivamogga	IX	13.9.2019
10	Khanagaon	VST	Gokak	Belgaum	III	19.9.2019
11	Alnavar	SKDRDP	Dharwad	Dharwad	VIII	18.9.2019
12	Uppinangadi	SKDRDP	Puttur	D. Kannada	X	30.9.2019
13	Kundapur	VST	Kundapura	Udupi	X	1.10.2019
14	Kaginele	SKDRDP	Byadagi	Haveri	VIII	27.9.2019
15	Doddamaralawadi	SKDRDP	Kanakapur	Ramanagara	V	20.9.2019
16	Santpur (Kamlanagar)	ISAP	Aurad	Bidar	I	07.09.2019
17	Pattana	M & M	Kalburgi	Kalaburgi	II	08.09.2019
18	Gogi	KALA	Shahapur	Yadgir	II	25.09.2019
19	Sirsi	John Deer	Sirsi	U. Kannada	IX	21.10.2019
20	Kottatti	VST	Mandya	Mandya	VI	18.10.2019

^{*} Selected in place of Holehonnur CHSC, which is not operative, as permitted by KEA

Coverage of FGD across Karnataka

Service providers CHSCs covered				
Service providers	CHSCs covered			
SKDRDP	Chandrabhanda, HuliHyder, Hosur, Arasikere (Jajur), Veerapur			
	(Kudlgere), Anandpur, Alnavar, Uppinangadi, Kaginele,			
	Doddamaralawadi			
M & M	Pattana, Jayapur			
John Deer	Sirsi, Govinkovi			
ISAP	Santpur (Kamalanagar)			
VST	Kottatti, Kundapur, Khangaon, Nayakanahatti			
Kala	Gogi			
Total No. of CHSCs	20			

Zones	CHSCs covered
NETZ	Santpur (Kamalanagar)
NEDZ	Pattana, Gogi, Chandra bhanda
NDZ	HuliHyder, Khanagaon
CDZ	Arasikere (Jajur), Nayakanahatti
EDZ	Hosur, Doddamaralawadi
SDZ	Kottatti, Jayapur
STZ	Veerapur (Kudlagere) and Govinkovi
NTZ	Alnavar, Kaginele
HZ	Sirsi, Anandpur
CZ	Uppinangadi, Kundapur
Total No. of CHSCs	20

Twenty focus group discussions conducted in selected taluks, representing all the agro-climatic zones culminated in the following observations.

- i. FGD at some centres like CHSC of Santpur (zone I), HuliHyder (Zone III) have given opinion to increase the equipment hiring rates to cover up increasing repair and higher fuel charges. Otherwise, the centres may incur recurring losses leading to their closure at later stages. However, this question is highly debatable as the increase of hiring rates may act as a disincentive to attract more farmers or may lead to reduced use of custom hire services. But, failure to increase the rates may lead to economic unviability and closure of the centre itself. A thorough discussion on such issues at the District Implement Committee (DIC) regularly in every season is of great importance in addressing such issues. The meeting has also highlighted the necessity to replace old machineries/ equipment to offer better service, as many machineries are being used for more than 3-4 years.
- Other FGDs at many CHSCs, including Santpur (Kamalnagar) in zone I, ii. HuliHyder in Zone III have, however, lauded the timely service of CHSCs in helping the farmers to take up timely farm operations, timely harvest/ threshing without any burden of owning the costly equipment and machineries. These centres have specially helped the farmers in attending to the timely operations during the situations like late on-set of monsoons, drought, intermittent drought, floods, cyclones, water logging and cold wave etc.

- iii. Most of CHSCs managed by tractor/ machinery manufacturing companies like M & M, VST, John Deer have sub-leased their centres to some private service providers. CHSC, Pattana in Aland taluk of Kalaburagi district was managed by M & M earlier but now sub-leased to Garuda Trade, a franchisee. The quality and transparency of service, maintaining the seniority for allotment and arrangement of driver quickly were all affected when the franchisee runs the show. But service providers like John Deer, running Govinkovi centre in Davangere district complain that Department of Agriculture has not released the subsidy even after 2 years of purchasing the machineries/ equipment. This may be one of the reasons to look for franchisee.
- iv. There appears to be lack of monitoring and control of activities of CHSCs by the concerned Government officials. While JDA hardly visits the centres, even ADAs fail to regularly visit the CHSCs, but ask for monthly report from them. Ideally, the concerned AO and jurisdictional ADA should have monitored the activities of CHSCs, including the hire rate fixation, finalising the list of machineries through half-yearly approval of equipment by District Implements Committee (DIC). In some cases, the centres have even shifted the place of business from the place allowed to be operated (CHSC, Govinkovi) and many times the tractors are not found in front of driver's house and not in the premises of CHSC.
- v. Classic examples of purchasing equipment not required by the concerned centres, as a testimony of improper selection of equipment by DICs, are found in CHSC, HuliHyder (where 9 out of 15 equipment of the centre remain idle and unused) and many other centres.
- vi. In some centres like CHSC, Chandrabanda, sufficient number of machines/ equipment were made available for service, improving the quality of service.
- vii. Supply of poor quality equipment leading to frequent repairs, unavailability and poor service are the most common complaints raised by many CHSCs. The centres are not given liberty to purchase what equipment they need, but they are supplied with the equipment by the identified supplier selected from central office. Such suppliers will not generally maintain quality, leading to poor service.
- viii. The hiring rates were not revised regularly; they remain unchanged for more than 2 years. Increased fuel rates, depreciation and repair charges have increased over years. In the absence of rate revision, many centres are running under accumulated losses.

- ix. However, in general, most FGDs have opined that providing custom hire services of hi-tech costly machines/ equipment to the farmers without passing on capital expenditure to the farmers has immensely helped them in attending to the farm operations timely and increase their crop yields. In the absence of such a service, the farmers would have been perhaps put to hardships regarding timely land preparation.
- x. The coverage of farming population by each CHSC varied from 54% in Santpur CHSC to 90% in CHSC of Khanagoan (Gokak taluk) and 95 % of Sirsi CHSC. The coverage depended mainly upon commitment with which the staff of CHSC had worked, revision of the list of machines/ equipment, timely availability of drivers and hire rates.
- xi. Some centres like Santpur of Chandrabanda and HuliHyder have even adopted preregistering the farmers' requirement and making advance allotments of machines/ equipment, so that the farmers are assured of machines/ equipment well in advance.
- xii. Centres like those of Jayapur and Nayakanahatti have potential to cover more number of farmers. But the coverage is hampered by a smaller number of equipment, which are in greater demand.
- xiii. Inadequate number or non-availability of drivers is one of the major constraints in most CHSCs. A single permanent driver appointed by a service provider is mostly inadequate. Arrangements to hire the drivers on contract basis have failed in some centres, because such drivers will not maintain the timings and are generally not available, when needed.
- xiv. In one of the FGDs at CHSC, Alnavar, farmers suggested that small and marginal farmers suggested that they should get the service by CHSC on concessional basis. One of the objectives of Krishi Yantra Dhare was to provide custom-hiring service to the small and marginal farmers as they cannot afford to purchase costly equipment. But subsidised allotment of these machines/ equipment needs to be included in the scheme.
- xv. Most farmers located beyond 5 Km from CHSCs are not intensively covered by them because the farmers have to pay with extra transportation charges @ Rs.10-12/Km obviously. These farmers will also not prefer CHSC machine/equipment, because they have to visit CHSC 2-3 times to avail the service (once to find availability, second time to book and third time to take the machinery

- and pay higher transport cost). Instead, they try to manage locally at competitive prices.
- xvi. A suggestion made by farmers in one of the FGDs to provide the services of an agricultural engineer for each taluk to cater to the technical needs of all centres in each taluk may be considered in future. He can take care of timely repairs of equipment/ machines.

10.CASE STUDIES AND BEST PRACTICES

The task of data collection from 105 sample CHSCs in the approved format for 'in- depth information' was assigned as a part of evaluation to Plus Trust. During the course of data collection from CHSCs, two model CHSCs were also studied to compare them with other CHSCs in respect to ideal practices followed by them and reasons for their success. These centres were expected to be covered as per ToR. In addition, another model CHSC was selected from the Plus Trust side studied in detail. Based on the information collected from these three model CHSCs, the following success stories were developed to narrate their practices so that other centres could also follow similar practices in future.

The system of custom-hiring of services is laudable, because the needy farmers can have access to farm mechanisation without investing on them; this is especially useful to small and marginal farmers with low or zero investment capacity. Use of farm machineries helps them to reduce labour requirement, facilitate timely operation, reduce cost of cultivation and improve their income. But these benefits of Custom-hiring services are not automatic by default. The service to the farmers through CHSCs can indeed transform into these benefits only when these centres are run efficiently by following some ideal practices.

To know about the ideal practices to be followed by CHSCs, the following three case studies have been developed choosing three model CHSCs located in three diverse agro-ecological zones, i.e., Zone 2 (north-eastern dry zone), Zone 3 (northern dry zone) and Zone 5 (eastern dry zone). All these centres were managed by SKDRDP.

10.1 Custom-Hire Service Centre, Sirwar, Raichur district (Irrigated)

Sirwara is around 35 Km from the district headquarters of Raichur located in Tungabhadra command with medium black soils in north-eastern dry zone (Zone 2). There are 34 villages in the jurisdiction spread over a maximum distance of 25 Km. The main crops grown in the jurisdictional area include paddy, jowar, cotton, redgram, other pulses like Bengal gram. Additionally, some farmers also grow vegetables on a minor scale. The irrigation water is available mainly between July and October and major cultivation is restricted to Kharif months, while rabi crops like Bengal gram, rabi jowar are also popularly grown under rainfed conditions. A few farmers have access to limited summer irrigation through canals and a few more irrigate their lands in summer through their bore wells. Such farmers invariably grow summer paddy crop. Farm activities requiring different farm

machineries are distributed throughout the year in the jurisdictional area in the following manner:

March-April: Harvesting of summer paddy crops requiring combine harvesters/ threshers

May-June: Land preparation for both rainfed and irrigated regions requiring tractors/ power tillers along with MB ploughs, rotovators, cultivators, etc.,

June-July: Sowing rainfed crops like redgram, cotton, kharif jowar requiring seed drills, seed-cum-fertilizer drills and tractors,

July-August: Planting of paddy requiring puddling/ levelling equipment and transplanters

September- October: Weeding and spraying requiring weeders, harrows and sprayers

November-December: Harvesting kharif crops requiring combine harvester, threshers and land preparation machines like tractors for rabi/summer crops

January- February: Inter-cultivation/ weeding/ spraying of rabi/summer crops requiring cultivators, harrows, tractors, weeders, sprayers etc.

The beneficiary farmers of all the 34 villages under the jurisdiction of CHSC of Sirwar are fully aware of the availability of farm machines and necessity to use these machineries both under irrigated and rainfed conditions. The awareness factor is estimated to be 100% in all 34 villages and most farmers are keen to use the services of CHSC, Sirwar. The year-round demand for machineries by fully aware farmers is an important factor for the success of the unit. This centre recorded demand for machinery/equipment for 10 to 11 months. Further, they have additional facility to hire equipment alone without machinery to the farmers who own the tractors.

The beneficiary farmers of Sirwar are extremely happy about the farm mechanisation service provided to them. The beneficiaries are not only able to avail timely availability of the required machinery provided to them at reasonable rates, but also make use of the machineries for almost all agricultural operations, including harvesting by combine harvesters and threshing of various crops by threshers. The range of equipment stocked by Sirwar centre is quite impressive and they cater to almost all farm operations in one or more months of the year.

The core factor for the success of Sirwar centre lies in the support they get from self- help groups organized by them to promote all-round development including micro finance. The awareness of working of CHSC and availability of machines/ equipment at Sirwar centre are easily propagated by all the farmers' groups to all the villages. No farmer is left unaware of these services by CHSC, when a large number of farmer groups themselves will advertise in favour of CHSC.

Why coverage of farmers is exemplary in Sirwar CHSC.

In the jurisdiction of Sirwar centre, nearly 400 farmers' groups, each with 8-10 farmers, work mainly as self-help groups. They are suitably assisted by a sewapratinidhi, appointed for 35-40 groups. These leaders not only advise the concerned farmers on various agricultural/ social/personal issues but also they provide micro finance for the immediate need of the farmers. Territorial officer available for 200-300 groups will oversee all the activities under the broad umbrella of social services provided under the Sri Kshetra Dharmasthala Rural Development Programme religiously flanked by the moral and religious support of Lord Majunatheshwara of Dharmasthala.

The demand created by such an excellent network for machines/ equipment is so high that CHSC will invariably adopt the method of advance booking of almost all machines/ equipment even up to one month. Of course, such a demand is effectively satisfied by CHSC by effective and transparent method of advance booking and satisfy the farers with a definite time line commitment.

In addition to this, CHSC adopts another ideal practice of conducting demonstration of its machines in important villages often with relevant technical/ commercial information every year along with the registration programme. Yearly, it is reported, CHSC of Sirwar undertook registration of at least 500 new farmers in 34 villages, till recently, to reach a coverage of 90 % farmers now. The success of CHSC of Sirwar may also be ascribed to other factors like upkeep of their machines by timely repairs, availability of manager in Sirwar on 24 X 7 basis, hire rates lesser than local rates and full transparency in all the transactions.

As a result of all these ideal practices, CHSC of Sirwar has been earning profit consistently. Its profits made in very first year (2014-15, Rs.1.88 lakh) it increased to Rs. 13.66 lakh within three years (2016-17). Subsequently the profits have further increased. It has set an example to cite everywhere that profits can be made by rendering satisfying service to the farming community.





10.2 Custom Hire Service Centre, Doddabelavangala (Rainfed)

Custom Hire Centre was established by SKDRDP at Doddabelavangala on 1.1.2014 in the first phase of establishing Krishi Yantra Dhare Programme. It is located in south eastern dry zone (Zone 5) and has a large jurisdictional area with 63 villages spread from up to 30 Km distance. All the villages have been covered by CHSC, although some far-off villages are covered partially.

WHY 100% COVERAGE CANNOT BE ACHIEVED BY CHSC?

Every village has some tractors/ tillers, mostly owed by wealthy farmers/ influential persons and leaders. These tractor/ tillers would also be available to the farmers on hire basis on much better terms than those of CHSC. For example, they may be available on credit, but the equipment with them may not be well maintained. Still, the farmers are inclined to use them. Or many farmers are simply obliged to hire such machines/ equipment because of personal relationships with the owners of such machines/ equipment. In such circumstances, some farmers are bound to use privately owned machines/ equipment and therefore, 100% coverage by CHSC is not possible.

The CHSC mainly covers rainfed area, principally covered by crops like ragi, maize, flat bean (avare), mango, guava, coconut as well as arecanut, vegetables, banana under limited irrigation facilities. The jurisdictional area has red sandy and red loamy soils with poor water holding capacity and poor-to-medium fertility status. It has more than 85% of farmers having less than 5 acres, who have no capacity to purchase costly farm machines and equipment. Hence, land preparation before soil moisture is lost is a major challenge using conventional bullock drawn equipment. Acute shortage of labour in the village, due to proximity to Bengaluru city has badly affected timely operations like sowing, weeding and harvesting. Hence, establishment of CHSC was very useful to these farmers to mechanise these farm operations at affordable rates.

The centre was able to cater to the needs of 2000 small and 2500 marginal farmers out of the total of 5071 farmers, thus gaining a great popularity in the farming community of the jurisdictional area. It has also given satisfactory service to 1200 scheduled caste and 300 scheduled tribe farmers and even 200 women farmers. It has 3 Escorts/ TAFE tractors (45 HP), one 50 HP tractor (New Holland), 1 Mahindra tractor (42 HP) 2 VST power tillers

(Shakti CT 85), 4 mini tractors (25 HP), 4 multi crop threshers, 2 self-propelled reapers, paddy threshers along with 82 different types of equipment. The centre has chosen to keep a variety of equipment to cater to the diverse needs of the farmers.

The success of the centre is mainly due to a wide variety of equipment, including rotovator, cultivators, M B ploughs. Rotary weeder, tree climbing machines, Chaff cutter, power sprayers and hand sprayers in sufficient numbers.

The centre has successfully managed this large inventory efficiently by timely repairs and kept most of equipment/ machines available for hire. Despite this, some equipment like chaff cutter and some reapers are sparingly used due to inadequate demand. Annual income of the centre was to the tune of Rs. 6.08 lakh (2014-15), Rs. 9.09 lakh (2015-16) and Rs.10.74 lakh (2016-17), maintaining consistency even till this year. The beneficiary farmers are fully happy about the service rendered by CHSC, Doddabelavangala.

Main reasons for the success of the centre and consistency of the profit are:

- i. The centre's activity is supported by the sister concern of SKDRDP, engaged in micro finance. They have closely knit network of farmers' groups (of 10-12 farmers each) who are encouraged by supervisor called Sewapratinidhi. This network will participate in overall development of agriculture and rural life. These people carry message of availability of machines/ equipment at Krishi Yantra Dhare centre. Thus, the centre can successfully engage their machines/ equipment for at least 8-10 months, generating consistent income.
- ii. Long-period renting is possible by cultivation of vegetables and plantation crops in a substantial area requiring farm machinery for year-round operations, in addition to field crops mainly under kharif season.
- iii. The centre has kept all the machines and equipment in good condition by timely repairs and replacement, so that more farmers are convinced of the quality work, if the centre's equipment are used.
- iv. More than these, the commitment of manager and drivers to deliver the quality service has indeed helped the centre in attaining success.
- v. To tackle the problems of high overhead costs, when a distant village is covered, the centre has evolved ingenuous way of stocking the tractor with equipment in a trust- worthy farmer's house in the far-off village during the peak season and

- covering as many farms as possible in surrounding villages. This has reduced the overhead cost and contributed to higher profit.
- vi. In addition, transparency in financial transactions, booking procedure, allotment of machines/ equipment has helped to build confidence in the farming community and to achieve good cooperation from them.
- vii. During off season, the centre regularly engages in conducting demonstrations to popularise the activities of centre.

Doddabelavangala CHSC has proved that even in dry land situations, CHSC can be successful like centres run in irrigated region (Sirwar and Arabhavi), if managed well and planned to suit to the specific situations.





10.3 Custom Hire Service Centre, Arabhavi, Belagavi district (Irrigated)

Custom hire service centre was established at Arabhavi, of northern dry zone (Zone 3) looking into the potentiality of agriculture in surrounding areas due to availability of irrigation from Ghataprabha Irrigation project. The area is well known for growing maize and sugarcane since 3-4 decades. Farm mechanisation can catalyse further growth in the agricultural sector, especially in the case of small and marginal farmers, who form a major chunk of farming community.

The centre was established during 2014 as a part of phase 1 of implementing Krishi Yantra Dhare scheme under the sponsorship of Sri Kshetra Dharmasthala Rural Development Programme (SKDRDP). It has a jurisdictional area of 33 villages spread over up to 25 Km. The centre has to provide service to all the villages under its jurisdiction, although some far-off villages are covered partially.

The centre is located in the heart of Ghataprabha command and is blessed with irrigation for 8-9 months. The soils of this area are red loamy with good drainage properties as well as medium black soils with good water holding capacities. Main crops grown in the villages around Arabhavi include maize, cotton, sugarcane, jowar, Bengal Gram, and a variety of vegetables. Two soil types, with widely varying soil moisture retention characters,

has offered opportunity to grow both kharif and rabi crops, which has in turn helped the CHSC to hire out tractors and equipment for 8-9 months in a year.

CRUCIAL FACTOR FOR THE SUCCESS OF CHSC

CHSC of Arabhavi derives its success from its location and its agricultural potential. Being in Ghataprabha command and having advantage of having both red soil and black soils, the jurisdictional area is used to grow both kharif and rabi crops, besides year-round sugarcane. This feature can provide CHSC an extended hiring month from April to January for one or other farm operation. CHSC can be commercially successful only when the idling period is minimum and the hiring period is extended to 8-10 months in a year.

The centre has 5 tractors, one power tiller and 14 types of equipment, most of them well maintained by frequent repairs and timely maintenance. They are put to intensive use for both kharif and rabi crops. Most frequently conducted operations being land preparation and threshing, the machines/ equipment of CHSC are intensively used for ploughing, harrowing, levelling, threshing and postharvest operations. The centre has some special equipment like furrow opener, trash cutter and power sprayer, in addition to regular equipment and machines. The centre has recorded a consistent annual return of Rs.0.84 lakh (2014-15), Rs.2.28 lakh (2015-16) and Rs.2.79 lakh (2017-18). The centre has consistently maintained its profitability.

The centre has adopted a number of ideal practices suitable for local situations leading to the success of the centre and full satisfaction of the beneficiaries:

- i. The hiring period is adequately spread over 8-9 months with minimum burden of off-season maintenance, due to growing of both kharif and rabi crops
- ii. The equipment are well maintained due to timely repairs, so that farmers are assured of good quality service.
- iii. The centre has experienced permanent drivers, who precisely understand the need of the farmers and take up the operations timely.
- iv. The centre has support of sister organisations (help groups) like other centres of SKDRDP, with programmes of all-round development for agriculture in particular and rural development in general. The supportive organisation has

- an excellent network of farmers' groups, which spread the information of good service provided by the centre in the entire jurisdiction.
- v. The centre also undertakes regular demonstration and equipment show programmes to popularise the services available at the centre.
- vi. The centre also has arrangements to borrow the equipment from nearby centres in times of need to tide over the high demand for certain equipment

10.4 Lessons learnt from successful case studies

Irrigated conditions:

- i. Adoption of "Self Help Group" concept to achieve improved demand for farm machineries spread over 8 to 10 months in order to achieve sustainable income for CHSCs. These SHGs were in the form of small farmers groups to deal with all agricultural problems of famers including providing micro-finance.
- ii. Reliance on local mechanic drivers to keep all the farm machineries/ equipment in good rentable condition to provide timely service to the beneficiaries.
- iii. Conducting regular demonstrations (on benefits of using CHSC service) and equipment shows in all villages of service area during the slack period in cooperation with departmental officials.
- iv. Aggregating the demand in far-off villages to facilitate stocking of machines/equipment temporarily in such villages to reduce the overhead cost of their frequent transportation.
- v. The CHSC activities have been extended through SHGs for a longer period in a year to achieve profit.
- vi. The centres have taken up diversification of activities such as marketing of various inputs and products as done by SKDRDP.

Dry land conditions:

- i. Adoption of "Self Help Group" concept to achieve improved demand for farm machineries spread over 8 to 10 months in order to achieve sustainable income for CHSCs. These SHGs were in the form of small farmers groups to deal with all agricultural problems of famers including providing micro-finance.
- ii. Reliance on local mechanic to keep all the farm machineries/equipment in good rentable condition to provide timely service to the beneficiaries.

- iii. The CHSC activities have been extended for a longer period through SHGs in a year to achieve profit.
- The centres have taken up diversification of activities such as marketing of iv. various inputs and products as done by SKDRDP.





11.FINDINGS OF THE STUDY

Following are the major findings of the impact evaluation study:

- i. **Awareness about the scheme among the small and marginal farmers -** Awareness among farmers across zones ranged from 25 % (SDZ) to 95 % (NTZ), with overall awareness regarding CHSC facilities in the farming community to the tune of 61%.
- ii. **Reach of services to different categories of farmers -** As many as 94% of CHSCs have provided services to the respective service area. Services have reached farmers of villages ranging from a minimum of 6 villages to a maximum of 117 villages with a mean of 33 villages per centre. Farmers had access to CHSC upto the maximum distance of 45 kms, but the density of service was higher for farmers/villages located within 5 to 10 kms radius from CHSC.
- iii. Coverage of special categories of farmers The hiring service of machineries/equipment was made available in all sample CHSCs, irrespective of service providers, on the 'first come first serve' basis and strictly on pre-payment of hire charges. No prioritised service was given to marginal/ small farmers or SC/ST/OBC/women farmers.
- iv. Effectiveness of CHSC services to small and marginal farmers and others Among different categories of the farmers studied in 105 sample centres across the zone, small farmers accounted for maximum (48.3%) followed by medium farmers (23.8%), marginal farmers (21.9 %) and large farmers (6 %).
- v. Addressing constraints in land preparation and other farm operations- Land preparation was the prioritized operation among the beneficiaries using CHSC services accounting for 92 % of the total services followed by 40 % having used for sowing operation.
- vi. **Preference for equipment -** As many 67 % beneficiary farmers have used Mould Board (M B) plough mainly for land preparation and 62% farmers using cultivator and 23 % farmers using rotovator, about 47% of farmers are using seed-cum-fertilizer drill for sowing purpose.
- vii. **Labour saved due to CHSCs -** The survey indicated that on an average 9.7 to 14 labour was saved per season per farmer due to adoption of farm mechanisation.
- viii. **Timeliness of operation** 97.82 % farmers have opined that they were able to take up timely operations due to use of CHSC machines/ equipment.

- ix. **Soil moisture conservation** Nearly 31.1% of farmers have expressed that soil moisture could be conserved by the use of CHSC machines/ equipment in regions of black soils. The farmers in red and laterite soil regions could not record noticeable soil moisture conservation due to inherent poor water holding capacity. The variations in the soil moisture were observed due to difference in the depth of cultivation and the intensity of rainfall.
- x. **Area covered by each farmer** The mean cultivated area of beneficiary farmers increased from 4.0 acres to 4.87 acres (21.5% increase) after the use of CHSC service.
- xi. Change in cropping pattern As many as 37.6 % farmers were able to change their cropping pattern from low-value, low-yielding crops to high-value and profitable crops (ragi to pulses and horticultural crops, jowar to cotton and pulses, bajra to maize and vegetables, minor millets to ragi and sunflower, horsegram to maize and flowers)

xii. Demand analysis of Farm Machinery / equipment

- Among different capacities of the tractors, 40-45 HP tractors were used to the maximum extent (1663 times across all the zones/ service providers), while 46-50 HP tractors were used 962 times in a year by different beneficiaries.
- Power tillers were less frequently used than tractors (591 times in all 105 CHSCs in one year), 62.7% of which were power tillers of >20HP. Power tillers of 21-25 HP and 26-30 HP were used 91 and 93 times, respectively, while tillers of 31-40 HP were used only 36 times in 105 CHSCs in a year.
- The preferential order of use of various machines/ equipment by beneficiaries
 was, Tractor> Power tillers>M B Plough> Cultivator> Rotovator>Disc plough>
 Seed cum fertilizer drill> Multi crop thresher> Machine operated crop specific
 thresher>combine harvesters
- Depending on the demand, equipment to be introduced and stocked on priority in CHSCs are Combine harvesters, Groundnut strippers & diggers, crop specific reapers, power tiller operated sprayers, seed bed preparation machines, ridger for sugarcane, baler for baling paddy straw, boom sprayers, Chain harvester for paddy, power weeder.
- Equipment stocked but used sparingly or never used are, sugarcane stubble shaver, cage wheel, roto till drill, grass cutting machine, powdering machine, tractor operated sprayer, laser leveller.

- xiii. **Impact on production and productivity of crops -** Across the zones, productivity of cereals, pulses, oilseeds, cotton, sugarcane, mulberry and horticultural crops increased by 11.26%, 29.08%, 21.33%, 9.59%, 7.93%, 21.49% and 9.38% respectively, due to the use of hi- tech machineries through CHSCs.
- xiv. **Effectiveness of CHSC on productivity among SF and MF -** Productivity enhancement in crops cultivated by marginal farmers also increased which ranged from 8.69% (jowar) to 50% (Bengal gram), productivity enhancement on small farms due to use of CHSC ranged from 5.22% (Cotton) to 25.54% (redgram).
- xv. **Impact on net income and economics -** Across the zones, the study observed reduction in cost of cultivation to an extent of Rs.1750 per acre and increased in net income of Rs.4540.
- xvi. Customer satisfaction by quality of support service/ equipment About 61.2 % beneficiaries expressed that they were satisfied with the quality of service rendered by CHSC, while 21.9 % of them opined that they were 'highly satisfied' and the remaining 16.9% have opined that they were 'partially satisfied' and 16.9% have some reservations about the quality of service.
- xvii. **Quality of equipment -** In all the agro ecological zones, farmers (99.24%) have expressed their full satisfaction about the quality of equipment provided by CHSC.
- waiting period to get service On an average the waiting period varied between zero and 3 days. Nearly 33.7 % farmers were able to get instant service, while 36.5 % farmers had to wait for 2 days and 22.6 % farmers waited for only one day to avail the service. About 6.2% farmers had to wait for 3 days to get service.
 - xix. **Hiring rates** About 99% farmers expressed satisfaction about the hire rates and their affordability.
 - xx. **Availability of required equipment -** In the overall analysis, 94.04 % farmers were able to get the required equipment/machines on time.
 - xxi. **Maintenance of equipment/ machines -** In all centres, machines/ equipment were maintained properly to the satisfaction of the users (99.5 % respondents opined that maintenance was good).
- xxii. **Profit and loss of CHSCs** Out of 105 sample CHSCs across the State, 76 centres (excluding depreciation) have incurred loss during 2016-17 to the tune of Rs.185.45 lakh, while the remaining 29 centres (excluding depreciation) have reported profit to the tune of Rs. 43.55 lakh. Among the service providers, highest share of profit/loss

making centres were from M/s SKDRDP (35 loss-making and 11 profit-making CHSCs)

Ownership issues: The ownership of different equipment and machineries purchased by service providers with subsidy must be transferred to CHSC after contract periods.
To this effect, the agreement between the service providers and Department of Agriculture should clearly indicate the method of such transfer.

12. RECOMMENDATIONS

The services of CHSCs have improved farm productivity and hence, it is necessary to continue the scheme. However, since 76 out of 105 sample CHSCs have incurred losses, the following recommendations are made to achieve the sustainability of CHSC services:

- The hiring of machines and equipment should be offered to marginal and small farmers in general and SC/ST farmers on priority at the rates lower than market rates.
 CHSCs need to be financially compensated by the Government to cover the difference between offered hire rates and market rates.
- ii. CHSCs should be permitted to serve as one stop centre to market farm-related inputs viz., seeds, fertillisers, plant protection chemicals as well as facilitating marketing and processing (value addition) of agricultural produce as a part of diversified activities.
- iii. Plant protection equipment (hand operated) should be deleted from the list of equipment to be stocked.
- iv. Department should popularise the use of equipment and their availability at CHSC.
- v. DIC should fix the hire charges based on fuel prices, labour wages, rent and depreciation once a year.
- vi. Service providers should be encouraged to establish CHSC in every hobli duly considering the maximum distance between any CHSC and village should not be more than 10 Km to reduce the overhead cost of transportation. Alternatively, machinery could be stored at villages which are more than 10 km after consolidating the requirement to reduce the transportation cost.
- vii. The list of equipment/machinery should be finalised before submitting to DIC, every year based on scientific demand analysis
- viii. CHSC should be declared as the nodal agency to encourage the local farmers to hire out their private machinery and equipment.
 - ix. Government should provide required infrastructure and housing facilities in Raita Samparka Kendras or Department farms for safe storage of machinery.
 - x. A provision of Rs. 1.00 lakh/centre annually is to be provided to meet repair and other expenses.
 - xi. An administrative grant of Rs.1.50 lakhs to establish the centres may also be provided to centres established under Slab I (established in 2014-15) on par with the centres established in Slab II subsequently.

- xii. In line with the guidelines, the officers of Department of Agriculture (concerned ADA and JDA) should frequently visit CHSCs and monitor/review all the activities of CHSCs under their jurisdiction.
- xiii. A minimum permanent staff for each CHSC should be Manager, Computer operator, Group-D worker and Driver on contract basis, besides provision to take additional drivers- depending on the necessity in season.
- xiv. The ownership of the machinery and equipment should rest with CHSC after the life period of concerned machinery/ equipment.
- xv. Training on the use of machinery needs to be conducted at the extension centres of Agriculture Department.
- xvi. A farmer friendly App needs to be developed for better service delivery and information dissemination to achieve the effectiveness of services.
- xvii. To cover more farmers in the service area there is need to conduct more awareness campaigns, field demonstrations, publicity through village wall posters, mass media, newspapers and local Self-Help groups (SHG) for better access to CHSC benefits.
- xviii. It is necessary to switch to sustainable CHSC model (See Fig 12.2) from the existing model (See Fig 12.1).
 - a. Approval of the list of equipment/machineries including their number every year should be based on the demand survey and analysis. It will help in revising the inventory of CHSC in tune with changes in the demand
 - b. The back-end subsidy should be released to the supplier only after physical verification of supplied items by the concerned Asst. Director of Agriculture.

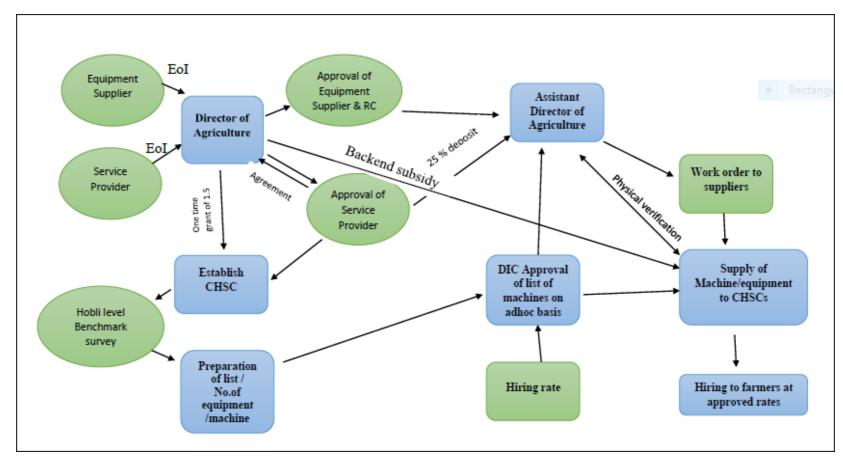


Fig 12.1: Existing CHSC model

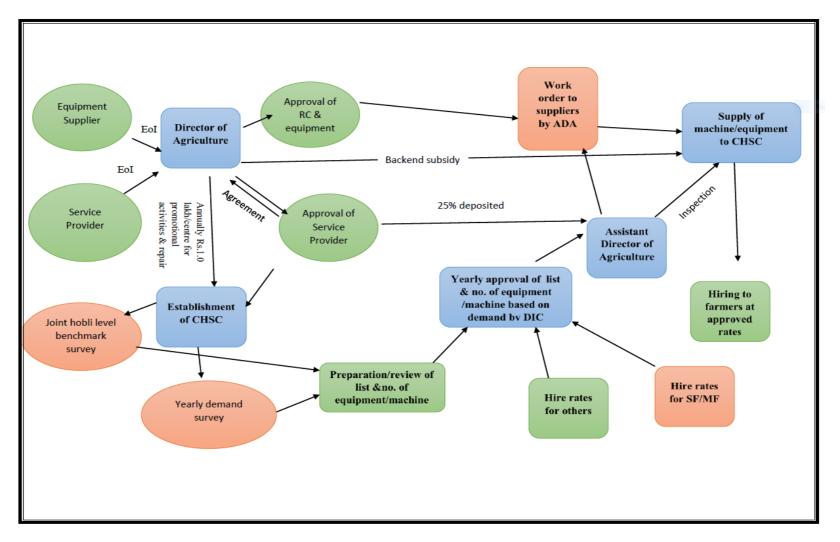


Fig 12.2: Sustainable CHSC model

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ANNEXURE I: Govt. Order dt. 22-04-2016

ಕರ್ನಾಟಕ ಪರ್ಕಾರ (ಜೈತಿ ಪಿಲಾಭ)

ಪಂಖ್ಯೇಉಕ್ಕನಿ/ಕೃಕ್ತಪ್ರ/ಕೃಯಂ.ಲಾ.ಕೆಂಂ./2014-15

ಕೃಷಿ ಆಯುಕ್ಕಾಲಯ, ಶೇಷಾವಿ ರಸ್ತೆ, ಬೆಂಗಳೂರು-1. ಿದಿನಾಂಕ: 22-04-2015.

කුත්වණ-

ಎಲ್ಲಾ ಜಿಲ್ಲಾ ಜಂಡ ಕೃಷಿ ನಿರ್ವೇಶಕರುಗಳಗೆ,

2014-15ನೇ ಸಾಲನಲ್ಲ ಸ್ವಾಹಿಸಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ವಿಶ್ವಯ:

ವಾಡಿಗೆ ಅಧಾಲತ ಸೇವಾ ಕೇಂದ್ರಗಳಗೆ ಸೂಕ್ತ ಹೆಸರನ್ನು ವೀಡುವ ಬಗ್ಗೆ

ಭರ್ಕಾರದ ಅದೇಶ ಭಂ:ಕೃತ್ತ 54 ಕೃಮತ 2015, ವಂಗಳೂರು. ಕೂಲ್ಲೇಖ:

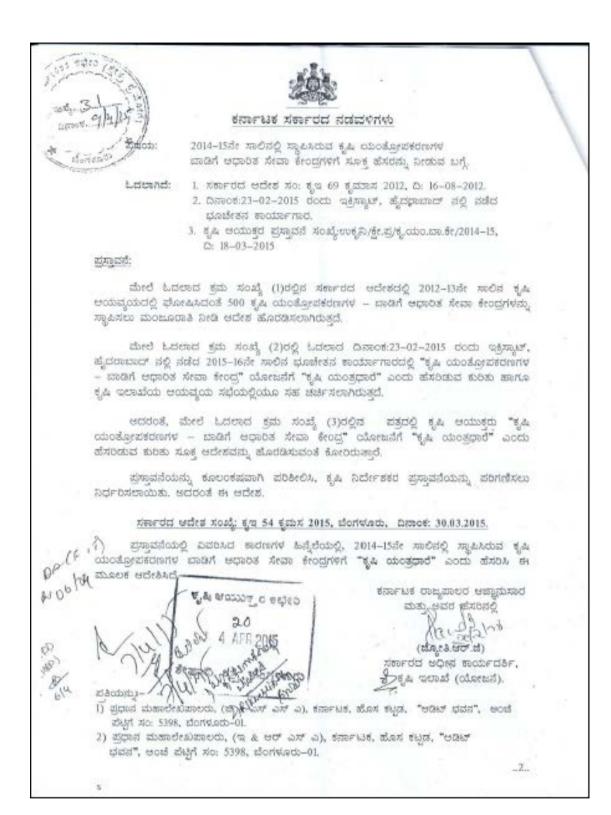
6j3908:30-03-2015 *****

ಮೇಲ್ನಂಡ ಐಷಯ ಕಾಗೂ ಉಲ್ಲೇಖಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ. ರಾಜ್ಯದಲ್ಲ 2014-15ನೇ ಸಾಅನಲ್ಲ ಪ್ರಾಪಿಸಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಅಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಗೆ "ಕೃಷಿ <u>ಯಂತ್ರಧಾರೆ"</u> ಎಂದು ಹೆಸರಿಡಲು ಸರ್ಕಾರದ ಆದೇಶದಲ್ಲ ತಿಳಸಲಾಗಿರುತ್ತದೆ. ಈ ಹಿನ್ನೆಲೆಯಲ್ಲ ಎಲ್ಲಾ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ವಾಡಿಗೆ ಅಧಾಲಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಗೆ "ಕೃ<u>ಷಿ ಯಂತ್ರರಾರೆ"</u> ಎಂದು ನಾಮಕರಣ ಮಾಡಲು ಹಾಗು ಇನ್ನು ಮುಂದೆ ಎಲ್ಲಾ ಪ್ರಕಟಣೆಗಳಲ್ಲ "ಕೃ<u>ತಿ ಯಂತ್ರಧಾರ"</u> ಎಂದು ಸಂಬೋಧಿಸಲು ಸೂಚಿಸಿದೆ. ಮುಂದುವರೆದು, ಈ ಶತ್ರದೊಂದಿಗೆ ಲಗತ್ತಿಸಿರುವ ನಮೂನೆಯಲ್ಲಯೇ (ಫಲಕದ ಅಕತ, ಅಕ್ಷರಗಳ ಗಾತ್ರ, ವಿನ್ಯಾಸ ಇತ್ಯಾದಿ) ವಾಮಫಲಕವನ್ನು ಅಳವಡಿಸಲು ಸೂಚಿಸಿದೆ.

(ಕರಣ) ಕೃಷ ಅಯುತ್ತಕಂದ ಅನುಮೋದಿಸಲ್ಪಣ್ಣದೆ)

हुक कर खुट अम्बाक्ट प्राप्त ARTHUR DE, STOREGISTED

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-2-

- 3) ಮಹಾಲೇಖಪಾಲರು (ಎ ಮತ್ತು ಇ) ಕರ್ನಾಟಕ, ಪಾರ್ಕ್ ಹೌಸ್ ರಸ್ತೆ, ಆಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂ: 5329,
- 4) ಆಯುಕ್ತರು/ನಿರ್ದೇಶಕರು, ಕೃಷಿ ಇಲಾಖೆ, ಬೆಂಗಳೂರು.
- 5) ಆಯುಕ್ತರು/ನಿರ್ದೇಶಕರು, ಜಲಾನಯನ ಅಭಿವೃದ್ಧಿ ಇಲಾಖೆ, ಬೆಂಗಳೂರು.
- 6) ಸರ್ಕಾರದ ಉಪ ಕಾರ್ಯದರ್ಶಿ -1, ಆರ್ಥಿಕ ಇಲಾಖೆ, ವಿಧಾನ ಸೌಧ, ಬೆಂಗಳೂರು
- 8) ಆಂತರಿಕ ಆರ್ಥಿಕ ಸಲಹೆಗಾರರು, ಕೃಷಿ ಮತ್ತು ಕೋಟಗಾರಿಕೆ ಇಲಾಖೆ, ಬೆಂಗಳೂರು
- 9) ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿಯವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿ, ಕೃಷಿ ಇಲಾಖೆ, ಬೆಂಗಳೂರು
- 10) ಸರ್ಕಾರದ ಉಪ ಕಾರ್ಯದರ್ಶಿ, ಕೃಷಿ ಇಲಾಖೆ, ಇವರ ಆಪ್ತ ಶಾಖೆ.
- 11) ಶಾಖಾಧಿಕಾರಿ, ಕೃಷಿ ಯೋಜನಾ ಘಟಕ, ಎ ಮತ್ತು ಬಿ, ಕೃಷಿ ಇಲಾಖೆ.
- 12) ಶಾಖಾ ರಕ್ಷ ಕಡತ/ ಹೆಚ್ಚುವರಿ ಪತಿಗಳು.

ANNEXURE II: CHSC Govt. Order – dated 26-02-2018

ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ನಡವಳಿಗಳು

17-18ನೇ ಸಾಲಿಗೆ ಕೃಷಿ ಯಂತ್ರಧಾರೆ - ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳ ಅನುಷ್ಠಾನದ ಬಗ್ಗೆ ಪರಿಷ್ಕತ ಕಾರ್ಯಾಕ್ರಮ (ರಾಜ್ಯ ತಲಯ) ಮಂಜೂರಾತಿ ಬಗೆ.

 ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ಕೃಷ 05 ಕೃಮಸ 2017, ದಿನಾಂಕ 11.09.2017 2. ಮಾನ್ಯ ಕೃಷಿ ಸಚಿವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ದಿನಾಂಕ 12,09,2017 ರಂದು ನಡೆದ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಯೋಜನೆಯ ಪ್ರಗತಿ ಪರಿಶೀಲನಾ ಸಭೆಯ ನಡವಳಿಗಳು. 3. ಆಯುಕ್ತರು, ಕೃಷಿ ಇಲಾಖೆ ರವರ ಪತ್ರ ಸಂಖ್ಯೆ: ಉಕ್ಕನಿ/ಕೃಯಾಂಹಿಸೂನೀ/ ಕ್ರಯಂಧ್ರಾ/ಸಪತ್ರ-2/2017-18 ದಿನಾಂಕ 23.09.2017.

ಪ್ರಸ್ತಾವನೆ:

ಮೇಲೆ (1) ರಲ್ಲಿ ಓದರಾದ ಸರ್ಕಾರದ ಆದೇಶದಲ್ಲಿ, 2017-18ನೇ ಸಾಲಿನಲ್ಲಿ ಕೃಷಿ ಯಂತಧಾರೆ ಕಾರ್ಯಕ್ರಮವನ್ನು 250 ಹೋಬಳಿ ಕೇಂದ್ರಗಳಲ್ಲಿ ಅನುಷ್ಠಾನ ಮಾಡಲು ಹಾಗೂ ಸಧರಿ ಕಾರ್ಯಕ್ರಮದ ವೆಚ್ಚವನ್ನು ಪ್ರಸಕ್ಕ ಸಾಲಿನ ಚಾಲ್ತಿ ಯೋಜನೆಯಡಿ ರಾಜ್ಯ ವಲಯ 'ಕೃಷಿ ಪರಕರಗಳು ಮತ್ತು ಗುಣಮಟ್ಟ ನಿಯಂತ್ರಣ', ಲೆ.ಶೀ.:2401-00-103-0-15(106) ಅಡಿಯಲ್ಲಿ ಲಭ್ಯವಿರುವ ರೂ.121.57 ಕೋಟ ಅನುದಾನದಲ್ಲಿ ರೂ.104.60 ಕೋಟಗಳ ವೆಚ್ಚದಲ್ಲಿ ಕಾರ್ಯಕ್ರಮವನ್ನು ಅನುಷ್ಟಾನಗೊಳಿಸಲು ಆದೇಶಿಸಿದೆ.

ಮೇಲೆ (2) ರಲ್ಲಿ ಓದಲಾದ ಮಾನ್ಯ ಕೃಷಿ ಸಚಿವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ದಿನಾಂಕ 12.09.2017 ರಂದು ನಡೆದ ಸಭೆಯ ನಡವಳಿಯಲ್ಲಿ, 2017-18ನೇ ಸಾಲಿನ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ 250 ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳನ್ನು 2 Slab ಗಳ ಬದಲಾಗಿ (ರೂ.40.00 ಲಕ್ಷ ಮತ್ತು ರೂ.75.00 ಲಕ್ಷ) 3 Slab ಗಳನ್ನು ಆಂದರೆ, ರೂ.40.00 ಲಕ್ಷ, ರೂ.75.00 ಲಕ್ಷ ಮತ್ತು ರೂ.100.00 ಲಕ್ಷಗಳ Slab ಗಳನ್ನು ನಿಗದಿಪಡಿಸಿ ಸಂಸ್ಥೆಗಳು ಇಚ್ಛಿಸಿದ್ದಲ್ಲಿ, Slab ವಾರು ಒಟ್ಟಾರೆ ಅನುದಾನ ಹೂಡಿಕೆಯನ್ನು ಮೊದಲನೇ ವರ್ಷದಲ್ಲಿ ಮಾಡುವುದು ಅಥವಾ 2 ವರ್ಷಗಳಲ್ಲಿ ಹೂಡಿಕೆ ಮಾಡುವ ಬಗ್ಗೆ ಅವಕಾಶ ಕಲಿಸುವಂತೆ ತೀರ್ಮಾನಿಸಲಾಗಿರುತ್ತದೆ.

ಆದರನ್ನಯ, ಕೃಷಿ ಆಯುಕ್ರರು ಮೇಲೆ (3) ರಲ್ಲಿ ಓದಲಾದ ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ, 2017-18ನೇ ಸಾಲಿಗೆ ಕೃಷಿ ಯಂತ್ರಧಾರೆ – ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳ ಅನುಷ್ಟಾನದ ಬಗ್ಗೆ ಈಗಾಗಲೇ ಸರ್ಕಾರವು ದಿನಾಂಕ 11.09.2017 ರಂದು ಹೊರಡಿಸಿದ ಆದೇಶ ಸಂಖ್ಯೆ: ಕೃಇ 05 ಕೃಮಸ 2017 ದಲ್ಲಿ ಕೆಲವೊಂದು ಮಾರ್ಪಾಡುಗಳನ್ನು ಆಳವಡಿಸಿ ಪರಿಷ್ಕತ ಆದೇಶ ಹೊರಡಿಸುವಂತೆ ಸರ್ಕಾರಕ್ಕೆ ಣವನೆ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ,

_2)

: 2:

ಈ ಹಿನ್ನಲಿಯಲ್ಲಿ. ಪ್ರಸ್ತಾವನೆಯನ್ನು ಕೂಲಂಕುಶವಾಗಿ ಪರಿಶೀಲಿಸಿದ ಸರ್ಕಾರವು. ಈ ಕೆಳಕಂಡಂತೆ ಪರಿಷ್ಕತ ಆದೇಶ ಹೊರಡಿಸಲು ತೀರ್ಮಾನಿಸಿರುತ್ತದೆ.

ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ಕೃಞ 05 ಕೃಮಸ 2017, ಬೆಂಗಳೂರು, ದಿನಾಂಕ 26.02.2018

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಿರುವ ಕಾರಣಗಳ ಹಿನ್ನಲೆಯಲ್ಲಿ, 2017-18ನೇ ಸಾಲಿನಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕಾರ್ಯಕ್ರಮವನ್ನು 250 ಹೋಬಳಿ ಕೇಂದ್ರಗಳಲ್ಲಿ ಅನುಷ್ಟಾನ ಮಾಡಲು ಹಾಗೂ ಸದರಿ ಕಾರ್ಯಕ್ರಮದ ವೆಚ್ಚವನ್ನು ಪ್ರಸಕ್ತ ಸಾಲಿನ ಚಾಲ್ತಿ ಯೋಜನೆಯಡಿ ರಾಜ್ಯ ವಲಯ 'ಕೃಷಿ ಪರಿಕರಗಳು ಮತ್ತು ಗುಣಮಟ್ಟ ನಿಯಂತ್ರಣ', ಲೆ.ಶೀ.:2401-00-103-0-15(106) ಅಡಿಯಲ್ಲಿ ಲಭ್ಯವಿರುವ ರೂ.121.57 ಕೋಟಿ ಅನುದಾನದಲ್ಲಿ (ಒಂದು ನೂರ ಇಪ್ಪತ್ತೊಂದು ಕೋಟಿ ಐವತ್ತೇಳು ಲಕ್ಷ ರೂಪಾಯಿಗಳು ಮಾತ್ರ) ಉದ್ದೇಶಿತ ಕಾರ್ಯಕ್ರಮವನ್ನು ಈ ಕೆಳಕಂಡ ಪರಿಷ್ಕೃತ ಪರತ್ರಿಗೊಳಪಟ್ಟು ಅನುಷ್ಠಾನಗೊಳಿಸಲು ಆದೇಶಿಸಿದೆ.

ಪರಿಷ್ಕೃತ ಪರತ್ರುಗಳು:

- ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಯೋಜನೆಯನ್ನು ನೊಂದಾಯಿತ ಚಾರಿಟಬಲ್ ಟ್ರಸ್ಟ್/ ಕಂಪನಿ (ಕಂಪನಿ ಕಾಯ್ದೆ 1956ರ ಸಕ್ಷನ್ 25ರ ಅನ್ವಯ ನೊಂದಾಯಿತವಾಗಿರುವ) / ಸರ್ಕಾರೇಶರ ಸಂಸ್ಥೆಗಳು / ಯಂತ್ರೋಪಕರಣಗಳ ಉತ್ಪಾದಕ ಸಂಸ್ಥೆಗಳ ಮೂಲಕ ಸಾರ್ವಜನಿಕ–ಖಾಸಗಿ ಸಹಬಾಗಿತ್ವ (PPP Model) ಮಾದರಿಯಲ್ಲಿ ಸ್ಥಾಪಿಸತಕ್ಕದ್ದು.
 - ಕೃಷಿ ಚಟುವಟಿಕೆಗಳನ್ನು ಕೈಗೊಳ್ಳಲು ಬೇಕಾಗುವ ಎಲ್ಲಾ ಯಂತ್ರೋಪಕರಣಗಳು ರೈತರಿಗೆ ದೊರಕುವ ನಿಟ್ಟಿನಲ್ಲಿ ಹಾಗೂ ನವೀನ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಶೇಖರಿಸಿಟ್ಟುಕೊಳ್ಳಲು ಅಗತ್ಯ ಕ್ರಮ ಕೈಗೊಳ್ಳತಕ್ಕದ್ದು.
 - ರೈತರ ಅಗತ್ಯಕ್ಕೆ ಹಾಗೂ ಅವಶ್ಯಕತೆಗೆ ಅನುಗುಣವಾಗಿ ಬೇಡಿಕೆಯಿರುವ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಬಾಡಿಗೆ ಆಧಾರಿತ ಕೇಂದ್ರಗಳಲ್ಲಿ ಲಭ್ಯವಾಗುವಂತೆ ಕ್ರಮವಹಿಸಶಕ್ಕದ್ದು.
 - 4. ಪ್ರಸ್ತುತ ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳಿಗೆ ಇರುವ ದರವನ್ನು ಪರಿಶೀಲಿಸಿ ಅದರ ಆಧಾರದ ಮೇಲೆ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾಧಿಕಾರಿಗಳ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ರಚಿಸಲಾಗಿರುವ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಉಪಕರಣ ಸಮಿತಿಯ ಶಿಫಾರಸ್ಸಿನ ಮೇರೆಗೆ ಬಾಡಿಗೆ ದರವನ್ನು ನಿಗದಿಪಡಿಸತಕ್ಕದ್ದು ಹಾಗೂ ಕಾಲಕಾಲಕ್ಕೆ ಪರಿಷ್ಕರಿಸತಕ್ಕದ್ದು.

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5. ಪ್ರಸ್ತಾಪಿಸಿರುವ ಆರ್ಥಿಕ ನೆರವು: ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಅಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳನ್ನು ಸ್ಥಳೀಯ ಬೇಡಿಕೆಗೆ ಅನುಗುಣವಾಗಿ 3 Slab ಗಳಲ್ಲಿ ಅಂದರೆ, ರೂ.40.00ಲಕ್ಷ (Slab-1), ರೂ.75.00ಲಕ್ಷ (Slab-2) ಮತ್ತು ರೂ.100.00ಲಕ್ಷ (Slab-3)ಗಳಲ್ಲಿ ಅನುಷ್ಟಾನ ಮಾಡಲು ಪ್ರಸ್ಥಾಪಿಸಿದೆ. ಸರ್ಕಾರದ ಸಹಾಯಧನವನ್ನು "Back Ended Subsidy" ರೂಪದಲ್ಲಿ 70:30ರ ಅನುಪಾಕದಲ್ಲಿ ಸರ್ಕಾರ/ಇಲಾಖೆ ಮತ್ತು ಆಯ್ಡೆಯಾದ ಸಂಸ್ಥೆಗಳು ಈ ಕೆಳಕಂಡಂತೆ ಭರಿಸುವುದು.

ವರ್ಷ	ಸರ್ಕಾರದ ಪಾಲು	ಸಂಸ್ಥೆಯ ಪಾಲು	ಚಿತ್ರಿ
	Slab – I (ජ.ඉ.4	0.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ (2017–18)	22.00	6.00	28.00
ಎರಡನೇ (2018–19)	6.00	6,00	12.00
ಒಟ್ಟು	28.00	12.00	40.00
	Slab - II (da.7	5.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ (2017–18)	41.25	11.25	52.50
ಎರಡನೇ (2018-19)	11.25	11.25	22.50
ಒಟ್ಟು	52.5	22.5	75.00
	Slab – III (ජශ.1	00.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ (2017-18)	55.00	15.00	70.00
ಎರಡನೇ (2018–19)	15.00	15.00	30.00
2,635	70.00	30.00	100.00

ಈಗಾಗಲೇ ಅನುಷ್ಯಾನ ಮಾಡಿರುವ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳ ವಾರ್ಷಿಕ ಆದಾಯ (Annual Turn Over), ಬೆಳೆಯ ತೀವ್ರತೆ (Cropping Intensity) ಮತ್ತು ತೋಟಗಾರಿಕೆ ಬೆಳೆಗಳ ವಿಸ್ತೀರ್ಣಗಳನ್ನು (Area under Horticultural Crops) ಆಧಾರಿಸಿ ಜಿಲ್ಲೆಗಳನ್ನು ಸ್ಥಾಬ್-1, ಸ್ಥಾಬ್-2 ಮತ್ತು ಸ್ಥಾಬ್-3 ಎಂದು ಈ ಕೆಳಕಂಡಂತೆ ವಿಂಗಡಿಸಿದ್ದು, ಅದರನ್ವಯ ಕಾರ್ಯಕ್ರಮ ಅನುಷ್ಯಾನ ಮಾಡುವುದು.

ಸ್ಲಾಬ್-1 (ರೂ.40.00 ಲಕ್ಷಗಳು) ರಡಿಯಲ್ಲಿ ಬರುವ ಜಿಲ್ಲೆಗಳು:

ಬೆಂಗಳೂರು (ನಗರ), ವಿಜಯಪುರ, ಕಲಬುರಗಿ, ಉತ್ತರ ಕನ್ನಡ, ಕೊಡಗು, ಚಿಕ್ಕಮಗಳೂರು ಮತ್ತು ದಕ್ಷಿಣ ಕನ್ನಡ ಜಿಲ್ಲೆಗಳು.

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ಸ್ವಾಚ್-2 (ರೂ.75.00 ಲಕ್ಷಗಳು) ರಡಿಯಲ್ಲಿ ಬರುವ ಜಿಲ್ಲೆಗಳು: ಜಿಂಗಳೂರು (ಗ್ರಾಮಾಂತರ), ಜೀದರ್, ಗದಗ, ಮಂಡ್ಯ, ಶಿವಮೊಗ್ಗ, ಕೊಪ್ಪಳ, ರಾಯಚೂರು, ಬಾಗಲಕೋಟಿ, ಉಡುಪಿ, ತುಮಕೂರು, ಬಳ್ಳಾರಿ, ರಾಮನಗರ, ಚಿತ್ರದುರ್ಗ, ಹಾಸನ, ಮೈಸೂರು, ಜಾಮರಾಜನಗರ ಮತ್ತು ಯಾದಗಿರಿ ಜಿಲ್ಲೆಗಳು.

ಸ್ವಾಬ್-3 (ರೂ.100.00 ಲಕ್ಷಗಳು) ರಡಿಯಲ್ಲಿ ಬರುವ ಜಿಲ್ಲೆಗಳು: ದಾವಣಗೆರೆ, ಬೆಳಗಾವಿ, ಚಿಕ್ಕಬಳ್ಳಾಸುರ, ಕೋಲಾರ, ಧಾರವಾಡ ಮತ್ತು ಹಾವೇರಿ ಜಿಲ್ಲೆಗಳು.

- ಪ್ರಾರಂಭಿಕವಾಗಿ ಆಡಳಿತ್ಕಾತಕ/ಕಛೇರಿ ನಿರ್ವಹಣೆ ನೆಚ್ಚಗಳಿಗೆ ಪ್ರತಿ ಕೇಂದ್ರಕ್ಕೆ ರೂ.1.50 ಲಕ್ಷಗಳ ಸಹಾಯಧನವನ್ನು ಒಂದು ಬಾರಿ ಮಾತ್ರ ನೀಡತಕ್ಕದ್ದು.
- 7. ಹಾಲಿ ಜಾಲ್ತಿಯಲ್ಲಿರುವ ರೂ.10,00 ಲಕ್ಷಗಳ ವಾರ್ಷಿಕ ವಹಿವಾಟು ಇರುವ ಕೇಂದ್ರಗಳಿಗೆ ನೂತನ ಯಂತ್ರೋಪಕರಣಗಳ ಖರೀದಿಗೆ ಅಥವಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಲಭ್ಯವಿರುವ ಉಪಕರಣಗಳನ್ನು / ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಬದಲಾಯಿಸಲು ರೂ.5.00 ಲಕ್ಷಗಳ ಸಹಾಯಧನ ಹಾಗೂ ವಾರ್ಷಿಕ ಪಹಿವಾಟು ರೂ.10.00 ಲಕ್ಷಗಳಿಗಿಂತ ಕಡಿಮೆ ವಹಿವಾಟು ಇರುವ ಪ್ರತಿ ಕೇಂದ್ರಗಳಿಗೆ ರೂ.2.50 ಲಕ್ಷಗಳ ಸಹಾಯಧನವನ್ನು ಇದರಲ್ಲಿ ಸರ್ಕಾರದ ಪಾಲು ತೇ.50 ಮತ್ತು ಸಂಸ್ಥೆಯ ಪಾಲು ಶೇ.50 ರ ಅನುಪಾತದಲ್ಲಿ ಸ್ಥಾಪನೆಯಾದ ವರ್ಷದಿಂದ 03 ವರ್ಷಗಳವರಿಗೆ ನೀಡತಕ್ಕದ್ದು.
- ಆಯೈಯಾದ ಸಂಸ್ಥೆಗಳು (Service Provider) ಇಚ್ಚಿಸಿದಲ್ಲಿ, ಸ್ವಾಚ್ವಾರು ನಿಗಧಿಪಡಿಸಿರುವ ಒಟ್ಟಾರೆ ಅನುದಾನವನ್ನು ಒಂದೇ ವರ್ಷದಲ್ಲಿ ಹೊಡಿಕೆ ಮಾಡಿ ಕಾರ್ಯಕ್ರಮ ಅನುಷ್ಟಾನ ಮಾಡಬಹುದಾಗಿರುತ್ತದೆ ಅಥವಾ ಈ ಮೇಲೆ ತಿಳಿಸಿರುವಂತೆ ಒಟ್ಟಾರೆ ಅನುದಾನವನ್ನು ಎರಡು ವರ್ಷಗಳಲ್ಲಿ ಹೂಡಿಕೆ ಮಾಡಿ ಕಾರ್ಯಕ್ರಮವನ್ನು ಅನುಷ್ಟಾನ ಮಾಡಬಹುದು.
- 9. ಕೃಷಿ ಯಿಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಸ್ಥಳೀಯವಾಗಿ ಬೇಡಿಕೆ ಇರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ದಾಸ್ತಾನು ಮಾಡಬೇಕಾದ ಸಂದರ್ಭಗಳಲ್ಲಿ, ಒಂದುವೇಳೆ ದರಪಟ್ಟಿಯಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳು ಲಭ್ಯವಿಲ್ಲದಿದ್ದ ಪಕ್ಷದಲ್ಲಿ ಕೆ.ಟಿ.ಪಿ.ಪಿ ಅಧಿನಿಯಮದ ಅನ್ವಯ ಅಥವಾ GEM (Government e-Marketplace) ಮೂಲಕ ಜಿಲ್ಲಾಮಟ್ಟದಲ್ಲಿ ಅನುಷ್ಠಾನ ಸಮಿತಿಯಲ್ಲಿ ಅನುಮೋದನೆ ಪಡೆದು ಖರೀದಿಸಬಹುದು.
- 10. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳಲ್ಲಿ ಬಾಡಿಗೆ ದರ ನಿಗದಿಪಡಿಸಲು ರಚಿಸಲಾಗಿರುವ ಸಮಿತಿ: ರೈತರಿಗೆ ಅವಶ್ಯವಿರುವ ಟ್ರ್ಯಾಕ್ಟರ್ಗಳು ಮತ್ತು ಇತರೆ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳಿಗೆ ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ನ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ರಚಿಸಿರುವ ಈ ಕೆಳಕಂಡ ಜಿಲ್ಲಾ ಉಪಕರಣಗಳ ಸಮಿತಿಯಲ್ಲಿ ಅನುಮೋದನೆ ಪಡೆದು. ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಹಾಗೂ ಕೇಂದ್ರಗಳ ಸೇವಾ ವೆಚ್ಚವನ್ನು ಭರಿಸತಕ್ಕದ್ದು.

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ಜಿಲಾ ಮಟದ ಉಪಕರಣ ಸಮಿತಿಯು ಈ ಕೆಳಗಿನಂತಿದೆ:

1	ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳು, ಜಿಲ್ಲಾ ಪಂಚಾಯತ್	ಆಧ್ಯಕ್ಷರು
2	ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು	ಉಪಾಧ್ಯಕ್ಷರು
3	ಸಂಬಂಧಿಸಿದ ತಾಲ್ಲೂಕಿನ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು	ಸದಸ್ಯ ಕಾರ್ಯದರ್ಶಿ
4	ಅಧ್ಯಕ್ಷರು ಜಿಲ್ಲಾ ಕೃಷಿಕ ಸಮಾಜ	ಸದಸ್ಯರು
5	ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು (SMS),ಜ.ಕೈನಿ. ಕಛೇರಿ	ಸದಸ್ಯರು ಹಾಗೂ ಜಿಲ್ಲಾ ನೋಡಲ್ ಆಧಿಕಾರಿ
6	ಕೃಷಿ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರತಿನಿಧಿ	ಸದಸ್ಯರು
7	ಆಯ್ಕೆಯಾದ ಸಂಸ್ಥೆಯ ಪ್ರತಿನಿಧಿ	ಸದಸ್ಯರು
8	ಜಿಲ್ಲೆಯ ಲೀಡಿಂಗ್ ಫಾರ್ಮ ಮೆಷನರಿ ಮ್ಯಾನುಪ್ಯಾಕ್ಟರಲ್ಲ್	ಸದಸ್ಯರು
9	ಇಬ್ಬರು ಪ್ರಗತಿಪರ/ಕೃಷಿ ಪ್ರಶಸ್ತಿ ವಿಜೇತ ರೈತರು	ಸದಸ್ಯರು

11. ಜಿಲ್ಲಾ ಮಟ್ಟದ ಉಪಕರಣ ಸಮಿತಿಯು ಹಂಗಾಮಿನಲ್ಲಿ ಪ್ರತಿ 15 ಅಥವಾ 30 ದಿನಗಳಿಗೊಮ್ಮೆ ಸಭೆ ಸೇರಿ ಮೇಲ್ನಂಡ ಅಂಶಗಳ ಬಗ್ಗೆ ಪರಿಶೀಲಿಸತಕ್ಕದ್ದು ಹಾಗೂ ಸೂಕ್ತ ನಿರ್ಣಯಗಳನ್ನು ಕೈಗೊಳ್ಳತಕ್ಕದ್ದು.

ಈ ಆದೇಶವನ್ನು ಆರ್ಥಿಕ ಇಲಾಖೆಯು ಟಿಪ್ಪಣಿ ಸಂಖ್ಯೆ: ಆಇ 662 ವೆಚ್ಚ-4/2017 ದಿನಾಂಕ 14.11.2017 ರಲ್ಲಿ ಮತ್ತು ಯೋಜನಾ ಇಲಾಖೆಯು ಟಿಪ್ಪಣಿ ಸಂಖ್ಯೆ: ಪಿಡಿ 65 ಪಿಎಫ್ಒ 2017 ದಿನಾಂಕ 09.11.2017 ರಲ್ಲಿ ನೀಡಿರುವ ಸಹಮತಿ ಹಾಗೂ ಸಚಿವ ಸಂಮಟವು ದಿನಾಂಕ 17.01.2018 ರಂದು ನೀಡಿರುವ ಸಹಮತಿಯ ಮೇರೆಗೆ ಹೊರಡಿಸಲಾಗಿದೆ.

ಈ ಕುರಿತು ಹೊರಡಿಸಲಾಗಿದ್ದ ಉಲ್ಲೇಖಿತ (1)ರ ಆದೇಶವನ್ನು ಈ ಮೂಲಕ ಹಿಂಪಡೆಯಲಾಗಿದೆ.

ಕರ್ನಾಟಕ ರಾಜ್ಯಪಾಲರ ಅಜ್ಜಾನುಸಾರ ಹಾಗೂ ಅವರ ಹೆಸರಿನಲ್ಲಿ

Commune Vinery (ಎ. ಮರುಷೋತ್ ಕುಮಾರ್)

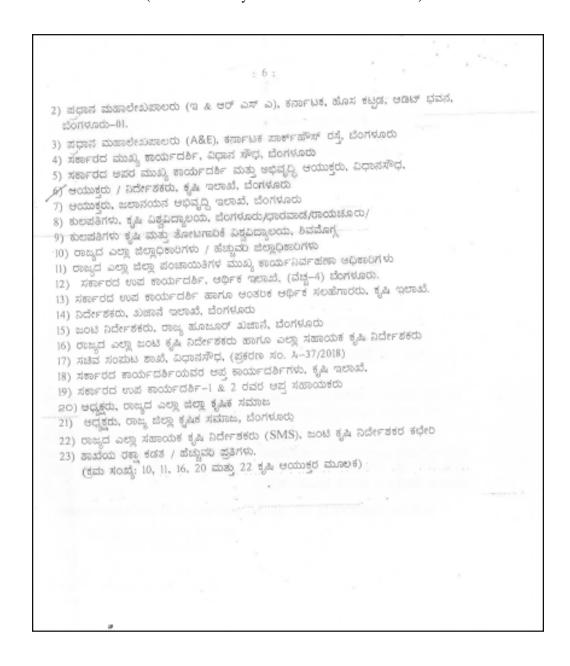
ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ,

್ಯತ್ನಷ್ಟ ಇಲಾಖೆ (ಯೋಜನೆ)

ಪ್ರತಿಯನ್ನು:-

1) ಪಧಾನ ಮಹಾಲೇಖಪಾಲರು (ಜಿ & ಎಸ್ ಎಸ್ ಎ), ಕರ್ನಾಟಕ, ಹೊಸ ಕಟ್ಟಡ, ಆಡಿಟ್ ಭವನ, ವೆಂಗಳೂರು-01.

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ANNEXURE III: KRISHI YANTRA DHARE GUIDELINES

ಉಾ. ಕೃಷಿ ಯಂತ್ರಧಾರೆ - ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರ ಮಾರ್ಗಸೂಚಿಗಳು

"ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಅಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರ" ಯೋಜನೆಯಡಿ ರೈತರಿಗೆ ಸಕಾಲದಲ್ಲಿ ಮತ್ತು ಕಡಿಮೆ ಬಾಡಿಗೆ ದರದಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಒದಗಿಸಲು ರಾಜ್ಯದ ಗ್ರಾಮೀಣ ಪ್ರದೇಶದ ಹೋಬಳಿಗಳಲ್ಲಿ ಜಾರಿಟಬಲ್ ಟ್ರಸ್ಟ್ / ಸರ್ಕಾರೇತರ ಸಂಸ್ಥೆಗಳು / ಯಂತ್ರೋಪಕರಣಗಳ ಉತ್ಪಾದಕ ಸಂಸ್ಥೆಗಳು / ಪ್ರಸ್ತುತ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳನ್ನು ನಿರ್ವಹಿಸುತ್ತಿರುವ ಫ್ರಾಂಚೈಸಿ ಸಂಸ್ಥೆಗಳ ಮೂಲಕ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳನ್ನು ಸ್ವಾಪಿಸುವ ಯೋಜನೆ 2014-15ನೇ ಸಾಲಿನಿಂದ ಜಾರಿಯಲ್ಲಿರುತ್ತದೆ. ಸರ್ಕಾರದ ಆದೇಶ ಸಂ: ಕೃಷಿ 54 ಕೃಮಸ 2015, ಬೆಂಗಳೂರು, ದಿನಾಂಕ: 30-03-2015ರ ಅಸ್ವಯ ಸದರಿ ಯೋಜನೆಗೆ 'ಕೃಷಿ ಯಂತ್ರಧಾರೆ' ಎಂದು ಹೆಸರಿಡಲಾಗಿದೆ.

ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ಕೃಣ 05 ಕೃಮಸ 2017, ದಿನಾಂಕ:26-02-2018 ಆದೇಶದನ್ವಯ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಯೋಜನೆಯಡಿ ಮೂರು(03) ಸ್ವಾಪ್ ಗಳು ಅಂದರೆ, ರೂ.40.00ಲಕ್ಷಗಳು, ರೂ.75.00ಲಕ್ಷಗಳು ಮತ್ತು ರೂ.100.00ಲಕ್ಷಗಳಿಗೆ ನಿಗದಿಪಡಿಸಲಾಗಿದೆ.

ಸದರಿ ಸರ್ಕಾರದ ಆದೇಶದನ್ವಯ ಸರ್ಕಾರದ ಪಾಲು ಮತ್ತು ಸಂಸ್ಥೆಯ ಪಾಲಿನ ಅಧಾರದ ಮೇಲೆ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳನ್ನು ಮೂರು ಸ್ವಾರ್ಜ್ಗಳಾಗಿ ವಿಂಗಡಿಸಲಾಗಿದೆ. ಜಿಲ್ಲಾವಾರು ಸದರಿ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳ ಸ್ಥಾಪನೆಗೆ ಸರ್ಕಾರ ಮತ್ತು ಸಂಸ್ಥೆಗಳು ಹೂಡಬೇಕಾದ ವರ್ಷವಾರು ಬಂಡವಾಳ / ಅನುದಾನದ ವಿವರಗಳು ಈ ಕೆಳಗಿನಂತಿದೆ:

ವರ್ಷ	ಸರ್ಕಾರದ ಪಾಲು	ಸಂಸ್ಥೆಯ ಪಾಲು	ಒಟ್ಟ
	Slab – I (d.a.4	10.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ(2019-20)	22.00	6.00	28.00
ಎರಡನೇ(2020–21)	6.00	6.00	12.00
ಒಟ್ಟು ಪ್ರ	28.00	12.00	40.00
Slab-I ಜಿಲ್ಲೆಗಳು : ವೆಂಗ ಚಿಕ್ಕಮಗಳೂರು ಮತ್ತು ದಕ್ಷೀ		ಯಪುರ, ಕಲಬುರಗಿ, ಉ	ು <mark>ತ್ತ</mark> ರ ಕನ್ನಡ, ಕೊಡಗು,
	Slab - II (での.	75.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ(2019-20)	41.25	11.25	52.50
ಎರಡನೇ(2020-21)	11.25	11.25	22.50
ಒಟ್ಟು	52.50	22.50	75.00
Slab-II ಜಿಲ್ಲೆಗಳು : ಬೆಂಗ ರಾಯಚೂರು, ಬಾಗಲಕೋ ಮೈಸೂರು, ಚಾಮರಾಜನಗಳ	ಚಿ, ಉಡುಪಿ, ತುಮಕೂರ	ಬೀದರ್, ಗದಗ, ಮಂಡ ಸಿ, ಬಳ್ಳಾರಿ, ರಾಮನಗರ	್ಯ, ಶಿವಮೊಗ್ಗ, ಕೊಪ್ಪಳ, ನ, ಚಿತ್ರದುರ್ಗ, ಹಾಸನ,
	Slab - III (d.p.)	00.00ಲಕ್ಷಗಳು)	
ಮೊದಲನೆ(2019-20)	55.00	15.00	70,00
ಎರಡನೇ(2020-21)	15.00	15.00	30.00





ಒಟ್ಟಾರೆಯಾಗಿ, ಸರ್ಕಾರದ ಸಹಾಯಧನವನ್ನು "Back Ended Subsidy" ರೂಪದಲ್ಲಿ 70:30 ರ ಅನುಪಾತದಲ್ಲಿ ಸರ್ಕಾರ / ಇಲಾಖೆ ಮತ್ತು ಆಯ್ಕೆಯಾದ ಸಂಸ್ಥೆಗಳು ಅನುತ್ತಮವಾಗಿ ನೀಡುವುದು, ಮೇಲ್ಕಂಡಂತೆ ವರ್ಷವಾರು ಬದಲಾಗಿ ಕಾರ್ಯಾದೇಶ ನೀಡಿದ ಮೊದಲನೇ ವರ್ಷದಲ್ಲಿಯೂ ಸಹ ಸಂಸ್ಥೆಯು ತನ್ನ ಪಾಲಿನ ಸಂಪೂರ್ಣ ಮೊತ್ತವನ್ನು ಹೂಡಿದಲ್ಲಿ ಅದೇ ವರ್ಷದಲ್ಲಿ 70:30 ರ ಅನುಪಾತದಲ್ಲಿ ಸಹಾಯಧನವನ್ನು ನೀಡಬಹುದಾಗಿದೆ.

ಪ್ರಾರಂಭಿಕವಾಗಿ ಆಡಳಿತ್ತಾತಕ / ಕಛೇರಿ ನಿರ್ವಹಣೆ ವೆಚ್ಚಗಳಿಗೆ ಪ್ರತಿ ಕೇಂದ್ರಕ್ಕೆ ರೂ.1.50 ಲಕ್ಷಗಳ ಸಹಾಯಧನವನ್ನು ಒಂದು ಬಾರಿ ಮಾತ ನೀಡತಕ್ಕದ್ದು

ಹಾಲಿ ಜಾಲ್ತಿಯಲ್ಲಿರುವ ಕೇಂದ್ರಗಳ ಪೈಕಿ ರೂ.10.00 ಲಕ್ಷ ಅಥವಾ ರೂ.10.00 ಲಕ್ಷಗಳಿಗಿಂತ ಮೇಲ್ಬಬ್ಬ ವಾರ್ಷಿಕ ವಹಿವಾಟು ಇರುವ ಕೇಂದ್ರಗಳಿಗೆ ನೂತನ ಯಂತ್ರೋಪಕರಣಗಳ ಖರೀದಿಗೆ ಅಥವಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಲಭ್ಯವಿರುವ ಉಪಕರಣಗಳನ್ನು/ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಬದಲಾಯಿಸಲು ರೂ.5.00 ಲಕ್ಷಗಳ ಸಹಾಯಧನ ಮತ್ತು ವಾರ್ಷಿಕ ವಹಿವಾಟು ರೂ.10.00 ಲಕ್ಷಗಳಿಗಿಂತ ಕಡಿಮೆ ಇರುವ ಪ್ರತಿ ಕೇಂದ್ರಗಳಿಗೆ ರೂ.2.50 ಲಕ್ಷಗಳ ಸಹಾಯಧನವನ್ನು ಇದರಲ್ಲಿ ಸರ್ಕಾರದ ಪಾಲು ಶೇ.50 ಮತ್ತು ಸಂಸ್ಥೆಯ ಪಾಲು ಶೇ.50ರ ಅನುಪಾತದಲ್ಲಿ ಸ್ಥಾಪನೆಯಾದ ವರ್ಷದಿಂದ 09 ವರ್ಷಗಳವರೆಗೆ ನೀಡತಕ್ಷದು.

ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಯೋಜನೆ/ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ವಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳನ್ನು ಸ್ವಾಪಿಸಲು ಈ ಕೆಳಕಂಡ ಕ್ರಮಗಳನ್ನು ಕೈಗೊಳ್ಳಲು ಸೂಚಿಸಲಾಗಿದೆ.

- ಜಿಲ್ಲಾ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ಯೋಜನೆಯ ಅನುಷ್ಟಾನಕ್ಕಾಗಿ ಆಯ್ಕೆಯಾದ ಸಂಸ್ಥೆಯೊಂದಿಗೆ ಈಗಾಗಲೇ ನಿಗಧಿಪಡಿಸಿರುವ ಹೋಬಳ ಕೇಂದ್ರದಲ್ಲಿ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇಪಾ ಕೇಂದ್ರ ಸ್ವಾಪಿಸಲು ಸಹಕಾರ ನೀಡುವುದು.
- ಸಂಸ್ಥೆಯು ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರವನ್ನು ಸ್ಥಾಪಿಸಲು ಈ ಮೇಲೆ ಖಟಚಿಳ್ಳ-1, ಖಟಚಿಳ್ಳ-2 ಮತ್ತು ಖಟಚಿಳ್ಳ-3ಗಳ ಅಡಿಯಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ ಸರ್ಕಾರದ ಸಹಾಯಧನವನ್ನು "ಚಿಲಿಳ್ ಇಟಿಜಜಜ ಖಡಿಳುಜಥಿ" ರೂಪದಲ್ಲಿ ನೀಡುವುದು.
- 3. ಜಿಲ್ಲಾ ಮಟ್ಟದಲ್ಲಿ ಯೋಜನೆಯ ಅನುಷ್ಯಾನ, ಉಸ್ತುವಾರಿಗಾಗಿ ಹಾಗೂ ವಾಡಿಗೆ ದರಗಳನ್ನು ನಿಗಧಿಪಡಿಸಲು ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ನ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ಈ ಕೆಳಕಂಡಂತೆ ರಚಿಸಿರುವ ಸಮಿತಿಯಲ್ಲಿ ಚರ್ಚಿಸಿ ಯೋಜನೆ ಅನುಷ್ಠಾನಕ್ಕೆ ಕ್ರಮ ಕೈಗೊಳ್ಳುವುದು.

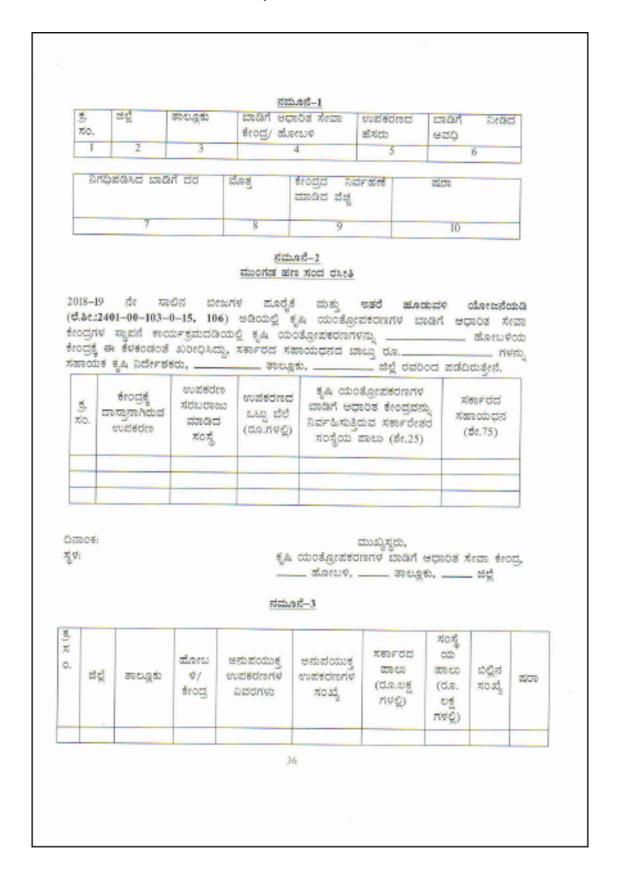
I	ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಕಾರಿಗಳು, ಜಿಲ್ಲಾ ಪಂಚಾಯಕ್	ಅಧ್ಯಕ್ಷರು
2	ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು	ಉಪಾಧ್ಯಕ್ಷರು
3	ಸಂಬಂಧಿಸಿದ ತಾಲ್ಲೂಕಿನ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು	ಸದಸ್ಯ ಕಾರ್ಯದರ್ತಿ
4	ಜಿಲ್ಲಾ ಕೃಷಿಕ ಸಮಾಜದ ಅಧ್ಯಕ್ಷರು	ಸದಸ್ಯರು
5	ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು (ಖಒಪ), ಜ.ಕೃನಿ, ಕಛೇರಿ	ಸದಸ್ಯರು ಹಾಗೂ ಜಿಲ್ಲಾ ನೋಡಲ್ ಅಧಿಕಾರಿ
6	ಕೃಷಿ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರತಿನಿದಿ	ಸದಸ್ಯರು
7	ಆಯ್ಕೆಯಾದ ಸಂಸ್ಥೆಯ ಪತಿನಿಧಿ	ಸದಸ್ಯರು
8	ಜಿಲ್ಲೆಯ ಲೀಡಂಗ್ ಫಾರ್ಮ ಮೆಷನರಿ ಮ್ಯಾನುಪ್ರಾಕ್ಷರರ್ಷ	ಸದಸ್ಯರು
9	ಇಬ್ಬರು ಪ್ರಗತಿಪರ/ಕೃಷಿ ಪ್ರಶಸ್ತಿ ವಿಜೇಕ ರೈಕರು	ಸದಸ್ಯರು

- 4. ಜಾರಿಟಬಲ್ ಟ್ರಸ್ಟ್/ಸರ್ಕಾರೇಶರ ಸಂಸ್ಥೆಕೃಷಿ ಉಪಕರಣಗಳ ತಯಾರಕ ಸಂಸ್ಥೆಗಳು ಇಲಾಖೆಯ ಸಹಯೋಗದೊಂದಿಗೆ ಸ್ಥಳೀಯವಾಗಿ ಬೆಳೆಯುವ ಬೆಳೆಗಳನ್ನು ಆಧರಿಸಿ ರೈತರಿಗೆ ಅವಕೃವಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಗ್ಗೆ ಪ್ರಾಥಮಿಕ ಸಮೀಕ್ಷೆ (ಬೆಂಚ್ ಮಾರ್ಕ ಸರ್ವೆ) ಕೈಗೊಳ್ಳುವುದು.
- 5. ರೈತರಿಗೆ ಅವಶ್ಯವಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಪಟ್ಟ ಮಾಡಿ ಜಿಲ್ಲಾ ಪಂಚಾಯಶನ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಪಕ ಅಧಿಕಾರಿಗಳ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ರಚಿಸುವ ಅನುಷ್ಟಾನ ಮತ್ತು ಉಸ್ತುವಾರಿ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆಯುವುದು.
- 6. ಕೃಷಿ ಯಂತ್ರಧಾರ ಕೇಂದ್ರಗಳಿಗೆ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಸರಬರಾಜು ಮಾಡುವ ಸಂಬಂಧ ಅನುಮೋದಿತ ಸರಬರಾಜು ಸಂಸ್ಥೆಗಳು ಹಾಗೂ ಯಂತ್ರೋಪಕರಣಗಳ ದರಗಳ ಪಟ್ಟಿಯಲ್ಲಿ ಸರಬರಾಜುದಾರರ ಹಾಗೂ ಯಂತ್ರೋಪಕರಣಗಳ ದರಗಳ ಎಂಪ್ಯಾವಲ್ ಪಟ್ಟಿಯ ಅವಧಿಯನ್ನು ಪರಿಶೀಲಿಸಿ ಯಂತ್ರೋಪಕರಣಗಳ ಇಲಾಖಾ ದರ ಪಟ್ಟಿಯಲ್ಲಿ ಅನುಮೋದನೆ ಮಾಡಿದ ಬೆಲೆಗೆ ಅನುಗುವಾಗಿ ಸಹಾಯಧವನ್ನು ಒದಗಿಸುವುದು.
- 7. ಸಮಿತಿಯಿಂದ ಅನುಮೋದನೆ ಪಡೆದ ನಂತರ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಇಲಾಖೆಯ ಅನುಮೋದಿಕ ದರಪಟ್ಟೆಯ ಅನ್ವಯ ಖರೀದಿಸುವುದು. ಒಂದು ವೇಳೆ ದರಪಟ್ಟಿಯಲ್ಲಿ ಅವಶ್ಯವಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳು ಲಭ್ಯವಿಲ್ಲದಿದ್ದ ಪಕ್ಷದಲ್ಲಿ ಕೆ.ಟಿ.ಪಿ.ಪಿ. ಅಧಿನಿಯಮದ ಅನ್ವಯ ಅಥವಾ GEM(Government e-Marketplace) ಮೂಲಕ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಅನುಷ್ಠಾನ ಮತ್ತು ಉಸ್ತುವಾರಿ ಸಮಿತಿಯಲ್ಲಿ ಅನುಮೋದನೆ ಪಡೆದು ಖರೀದಿಸಬಹುದಾಗಿದೆ.
- 8. ದಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಿಗೆ ಇಲಾಟಾ ದರಕರಾರಿನಲ್ಲಿ ಇಲ್ಲರಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣ,ಉಪಕರಣಗಳ ಪಡಿಭಾಗಗಳು, ಟ್ರ್ಯಾಕ್ಟರ್ ಹಾಗೂ ಪವರ್ ಟಿಲ್ಲರ್ಗಳ ಟ್ರೇಲರ್ಗಳು, ಹುಕ್ ಮತ್ತು ಡಾಬರ್ ರಾಡ್ ಗಳು ಹಾಗೂ ಕಂಬೈನ್ನ ಹಾರ್ವಸ್ತರ್ಗಳನ್ನು ಸಾಗಿಸಲು ಬೇಕಾಗುವ ಗಾಲಿ ರ್ಯಾಂಪ್ ಗಳನ್ನು ಮುಖ್ಯಕಾರ್ಯನಿರ್ವಹಣಾಧಿಕಾರಿಗಳವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ರಚಿಸಲಾಗಿರುವ ಜಿಲ್ಲಾ ಮಟ್ಟದ ಸಮಿತಿಯ ಅನಾಮೋದನೆ ಪಡೆದು, ಕೆ.ಟಿ.ಪಿ.ಪಿ. ಅಧಿನಿಯಮದ ಅನ್ವಯ ಖರೀದಿ ನಿಯಮಾವಳಿಗಳನ್ನು, ಒಂದು ಲಕ್ಷಕ್ಕೆಂತ ಕಡಿಮೆ ಇದ್ದಲ್ಲಿ ಸಾಮಾನ್ಯ ಖರೀದಿ ನಿಯಮಾವಳಿಗಳನ್ನು ಪಾಲಿಸಿ ಉಪಕರಣಗಳ ಖರೀದಿ ಮಾಡಿ ದಾಸ್ತಾಮ ಪಡೆಯುವುದು.
- 9. ಜಾಲ್ಡೆಯಲ್ಲಿರುವ ಕೃಷಿ ಯಂತ್ರಾಧಾರೆ ಕೇಂದ್ರಗಳಲ್ಲಿ ದಾಸ್ತಾನು ಮಾಡಿರುವ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಸತತವಾದ ಬಳಕೆಯಿಂದ ಹಳೆಯದಾದ ಮತ್ತು ಅನುಪಯುಕ್ತವಾದ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಜಿಲ್ಲಾ ಅನುಷ್ಠಾನ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆದು ಕೆ.ಟಿ.ಪಿ.ಪಿ. ಅನ್ನಯ ವಿಲೀವಾರಿ ಮಾಡಿ. ಹೊಸ್ರನೂತನ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಖರೀದಿಸಿ ಆದೇ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಕ್ಕೆ ಮರು ಹೂಡಿಕೆ ಮಾಡುವುದು. ವಿಳಿವಾರಿ ಪ್ರಕ್ರಿಯೆ ವಿವರಗಳು ಈ ಕೆಳಕಂಡಂತಿರುತ್ತದೆ:
 - ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳಲ್ಲಿರುವ ಅನುಪಯುಕ್ತ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಜಿಲ್ಲಾ ಅನುಷ್ಯಾನ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆದು, ಸಂಬಂಧಪಟ್ಟ ತಾಲ್ಲೂಕು ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರ ಮಟ್ಟದಲ್ಲಿ ವಿಲೀವಾರಿ ಪಹಿಯಿ ಕ್ರಿಗೊಳುವುದು.
 - ಟೆಂಡರ್ ಅಜ್ಜಾನಿಸುವ ಪ್ರಾಧಿಕಾರವನ್ನಾಗಿ ಸಂಬಂಧಪಟ್ಟ ಶಾಲ್ದೂಕು ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರನ್ನು ಮತ್ತು ಟೆಂಡರ್ ಅಂಗೀಕರಿಸುವ ಪ್ರಾಧಿಕಾರವನ್ನಾಗಿ ಸಂಬಂಧಪಟ್ಟ ಉಪ ಕೃಷಿ ನಿರ್ದೇಶಕರನ್ನು ನೇಮಿಸುವುದು.
 - ಕೆ.ಟಿ.ಪಿ.ಪಿ. ಅನ್ವಯ ಟೆಂಡರ್ ಕರೆದು ಕ್ರಮಬದ್ಧವಾಗಿ ನಿಯಾವಾನುಸಾರ ಅನುಪಯುಕ್ತ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ವಿಲೇ ಮಾಡುವುದು.

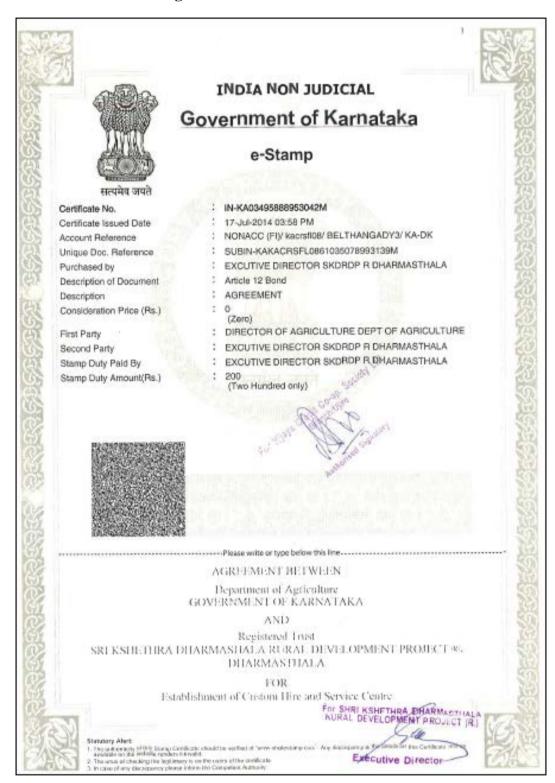
- ೧೮ೀವಾಗಿ ಸಂಪಾದುವಾಗುವ ಮೊತ್ತದಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರವಾರೆ ಯೋಜನೆಯ ಮಾರ್ಗಸೂಚ/ ಸುತ್ತೋಲೆಗಳನ್ನಯ ಜೊಸ/ನೂತನ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಖರೀದಿಸಿ ಅದೇ ಕೇಂದ್ರಗಳಲ್ಲಿ ದಾಸ್ತಾನು ಮಾಡುವುದು.
- 10. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳಿಗೆ ನೀಡುವ ಸರ್ಕಾರದ ಸಹಾಯಧನವನ್ನು (Back Ended Subsidy ರೂಪದಲ್ಲಿ) ಒದಗಿಸುವ ಮುನ್ನ ಸಂಸ್ಥೆಯು ದಾಸ್ತಾಮ ಪಡೆದಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಇಲಾಖಾ ಅಧಿಕಾರಿಗಳು ಪರಿಶೀಲನೆ ಮಾಡುವುದು ಕಡ್ಡಾಯವಾಗಿರುತ್ತದೆ. ಮುಂದುವರೆದು, ಸದರಿ ಕೇಂದ್ರಗಳಲ್ಲಿ ದಾಸ್ತಾಮ ಮಾಡಲಾಗುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಪರಿಶೀಲನೆ ಮಾಡಿ ಖಚಿತ ಪಡಿಸಿಕೊಂಡ ನಂತರ ಸರ್ಕಾರದ ಸಹಾಯಧನವನ್ನು ಒದಗಿಸಲು ಕ್ರಮ ಪಹಿಸುವುದು.
- ಸಂಸ್ಥೆಯು ಪ್ರತಿ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಿಗೆ ಪ್ರಶ್ಯೇಕ ಬ್ಯಾಂಕ್ ಖಾತೆ ತೆರೆದು ಪಹಿವಾಟು ನಿರ್ವಹಿಸುವುದು.
- ಎರಡನೇ ವರ್ಷದಲ್ಲಿ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರದ ಕಾರ್ಯವೈಖರಿ ಹಾಗೂ ಯಶಸ್ಸನ್ನು ಪರಿಗಣಿಸಿ ಅನುಧಾನವನ್ನು ಬಿಡುಗಡೆ ಮಾಡುವುದು.
- (3. ಸಮಿಕಿಯು ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳಿಗೆ ಬಾಡಿಗೆ ನಿರ್ಧರಿಸುವಾಗ, ಕೇಂದ್ರದಲ್ಲಿ ಕಾರ್ಯನಿರ್ವಹಿಸುವ ಸಿಬ್ಬಂದಿ ಬೇತನ, ಇಂಧನವೆದ್ದ, ರಿಪೇರಿ, ಕೇಂದ್ರದ ಬಾಡಿಗೆ, ನಿರ್ವಹಣಾ ವೆಚ್ಚಗಳನ್ನು ಪರಿಗಣಿಸಿ ಸ್ಥಳೀಯವಾಗಿ ಬಾಡಿಗೆಗೆ ದೊರೆಯುವ ದರವನ್ನು ತಾಳೆಮಾಡಿ ನಿರ್ವಹಣೆಗೆ ಬೇಕಾಗುವ ಲಾಛಾಂಶ (ಪ್ರಾಫಿಟ್ ಮಾರ್ಜಿನ್)ದ ಅಧಾರದ ಮೇಲೆ ಸಮಿಕಿಯ ಅನುಮೋದನೆ ಪಡೆದು ದಾಡಿಗೆ ದರ ನಿಗಧಿಪಡಿಸುವುದು.
 - *ವಿಶೇಷ ಸೂಚನೆ ಹಾಲಿ ಜಾಲ್ತಿಯಲ್ಲಿರುವ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳಲ್ಲಿ ದಾಸ್ತಾಮ ಮಾಡಿರುವ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ದರಗಳನ್ನು, ಪ್ರಮುಕವಾಗಿ ಇಂಧನ(fuel) ಮತ್ತು ನಿರ್ವಹಣಾ(Maintenance) ಹಾಗೂ ಇತರೆ ಅಂತಗಳನ್ನು ಪರಿಗಣಸಿ, ಜಿಲ್ಲಾ ಅನುಷ್ಯಾನ ಸಮಿತಿಯು ಪ್ರತಿ ಆರು ತಿಂಗಳಿಗೆ ಒಮ್ಮೆ ಸಭೆಯನ್ನು ಜರುಗಿಸಿ ಕಡ್ಡಾಯವಾಗಿ ಬಾಡಿಗೆ ದರಗಳನ್ನು ಪರಿಷ್ಕರಿಸುವುದು.
- 14. ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಬಾಡಿಗೆ ನೀಡುವಾಗ ಸಣ್ಣ ಮತ್ತು ಅತಿಸಣ್ಣ ರೈತರಿಗೆ ಅದೃತೆ ನೀಡುವುದು. ಸಣ್ಣ ಮತ್ತು ಅತಿಸಣ್ಣ ರೈತರಿಗೆ ಹಾಗೂ ಇತರೆ ರೈತರಿಗೆ ಪ್ರತ್ಯೇಕ ಬಾಡಿಗೆ ದರ ನಿಗಧಿಪಡಿಸುವುದು. ಸಣ್ಣ ಮತ್ತು ಅತಿಸಣ್ಣ ರೈತರಿಗೆ ನಿಗಧಿಪಡಿಸುವ ಬಾಡಿಗೆ ದರವು ಇತರೆ ರೈತರಿಗೆ ನಿಗಧಿಪಡಿಸುವ ಬಾಡಿಗೆ ದರಕ್ಕಿಂತ ಕಡಿಮೆ ಇರತಕ್ತದು.
- 15. ಸೇವಾ ಕೇಂದ್ರದಿಂದ ಬರುವ ಆದಾಯವನ್ನು ಕೇಂದ್ರದ ಬಲವರ್ಧನೆಗಾಗಿ ಬಳಸುವುದು.
- 16. ಸಂಸ್ಥೆಯು ಪ್ರತಿ ವರ್ಷವು ಕೇಂದ್ರವಾರು ಲೆಕ್ಕ ಪರಿಶೋಧನಾ ವರದಿಗಳು (ಅಡಿಟೆಡ್ ಸ್ಟೇಟ್ ಮೆಂಟ್) ಮತ್ತು ಉಪಯೋಗಿತ ಪ್ರಮಾಣ ಪತ್ರವನ್ನು ಜ.ಕೃ.ನಿ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಿ ನಂತರ ಕ್ರೋಢೀಕೃತ ವರದಿಯನ್ನು ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸುವುದು ಕಡ್ಡಾಯವಾಗಿರುತ್ತದೆ. ಈ ಬಗ್ಗೆ ಜಂಟ ಕೃಷಿ ನಿರ್ದೇಶಕರು/ಉಪ ಕೃಷಿ ನಿರ್ದೇಶಕರು ಕೇಂದ್ರವಾರು ಆಡಿಟ್ ಮಾಡಿಸಿ ಅಡಿಟ್ ವರದಿಯನ್ನು ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಕಳುಹಿಸಲು ಸೂಕ್ತ ಕ್ರಮವಹಿಸುವುದು.
- 17. ಸಂಸ್ಥೆಯು ಜಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರವನ್ನು ತೃಪ್ತಿಕರವಾಗಿ ಕನಿಷ್ಠ 9 ವರ್ಷಗಳವರೆಗೆ ನಿರ್ವಹಣೆ ಮಾಡುವುದು ಕಡ್ಡಾಯವಾಗಿರುತ್ತದೆ (9 ವರ್ಷಗಳ ನಂತರ ಪರಸ್ಪರ ಒಪ್ಪಿಗೆಯ ಮೇಲೆ ಅವಧಿಯನ್ನು ವಿಸ್ತರಿಸಬಹುದಾಗಿದೆ.)
- 18. ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಬೇಕಾದ/ಪಾವತಿಸಬೇಕಾದ ಯಾವುದೇ ರೀತಿಯ ತೆರಿಗೆ/ಕರಗಳಿಗೆ ಸಂಸ್ಥೆಯು ಜಪಾಬ್ಯಾರಿಯಾಗಿರುತ್ತದೆ.
- ಇಲಾಖೆಯ ಅಧಿಕಾರಿಗಳು ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಕ್ಕೆ ಕಾಲಕಾಲಕ್ಕೆ ಭೇಟಿ ನೀಡಿ ಕೇಂದ್ರದ ನಿರ್ವಹಣೆ ಮತ್ತು ಲೆಕ್ಕಪತ್ರ ನಿರ್ವಹಣೆಗಳನ್ನು ಪರಿಶೀಲಿಸುವುದು.
- 20. ಪ್ರತಿ ಮಾಹೆಯ 10ನೇ ತಾರೀಖಿನೊಳಗೆ ಕೇಂದ್ರದ ಪ್ರಗತಿ ಪಠದಿಯನ್ನು ನಿಗಧಿತ ನಮೂನೆ-1 ರಲ್ಲಿ ಅಥವಾ ಸೂಚಿಸುವ ನಮೂನೆಯಲ್ಲಿಯೇ ಸಂಬಂಧಪಟ್ಟ ಜಂಟೆ ಕೃಷಿ ನಿರ್ದೇಶಕರ ಕಛೇರಿಗೆ ಕಪ್ಪದೇ ಸಲ್ಲಿಸುವುದು. ನಂತರ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ಕ್ರೋಡೀಕೃತ ವರದಿಯನ್ನು ಕೇಂದ ಕಛೇರಿಗೆ ಕಳುಹಿಸುವುದು.

- 21. ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳು ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ರೈತರಿಗೆ ಬಾಡಿಗೆಗೆ ದೊರೆಯುವ ಬಗ್ಗೆ ಇಲಾಖೆಯ ಅಧಿಕಾರಿಗಳು ಹಾಗೂ ಸಂಬಂಧಪಟ್ಟ ಸಂಸ್ಥೆಯು ರೈತರು, ರೈತ ಮುಖಂಡರು ಹಾಗೂ ಚುನಾಯಿತ ಜನಪ್ರತಿನಿಧಿಗಳಿಗೆ ಮಾಹಿತಿಯನ್ನು ನೀಡಿ ವ್ಯಾಪಕವಾಗಿ ಪ್ರಚಾರ ಕೈಗೊಳ್ಳುವುದು.
- 22. ಸಂಬಂಧಪಟ್ಟ ಸಂಸ್ಥೆಯಿಂದ ಮುಂಗಡ ಹಣ ಸಂದ ರಸೀದಿಯನ್ನು ನಮೂನೆ-2ರಲ್ಲಿ ಸೂಚಿಸಿರುವ ನಮೂನೆಯಲ್ಲಿ ಪಡೆಯುವುದು.
- 23. ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಿಗೆ ಇಲಾಖಾ ಪತ್ರ ಸಂಖ್ಯೇಉಕ್ಕನಿ/ಕ್ಷೇಪ್ರ/ಕೃ.ಯಂ.ಬಾ.ಕೇಂ./2014-15,ದಿನಾಂಕ:22-04-2015ರ ಅನ್ವಯ ನಾಮ ಫಲಕವನ್ನು ಅಳವಡಿಸುವುದು.
- 24. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳ ಬದಲಾವಣೆ ಅವಕ್ಕವಿದಲ್ಲಿ ಆಯಾ ವಿಧಾನಸಭಾ ಕ್ಷೇತ್ರದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಮತ್ತೊಂದು ಹೋಬಳಿಯನ್ನು ಜಿಲ್ಲಾ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆದು ಆಯ್ಕೆ ಮಾಡಿ ಅನುಷ್ಠಾನ ಮಾಡಿ ಈ ಬಗ್ಗೆ ಕೈಗೊಂಡ ಕ್ರಮದ ಮಾಹಿತಿಯನ್ನು ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸುವುದು.
- 25. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ / ಸ್ಥಳೀಯವಾಗಿ ಬೇಡಿಕೆಯಲ್ಲದಿರುವ ಹಾಗೂ ಉಪಯೋಗಿಸುತ್ತಿಲ್ಲದಿರುವ ಯಂತ್ರೋಪಕರಣಗಳನ್ನು ಜಿಲ್ಲೆಗಳಲ್ಲಿ ಬೇಡಿಕೆ ಇರುವ ಇತರೆ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳಿಗೆ, ಜಿಲ್ಲಾ ಅನುಷ್ಟಾನ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆದು ದಾಸ್ತಾನನ್ನು ವರ್ಗಾಯಿಸಿ ಮಾಹಿತಿಯನ್ನು ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಕಳುಹಿಸುವುದು. ಮುಂದುವರೆದು, ಜಿಲ್ಲೆಗೆ ಅಗತ್ಯವಿಲ್ಲದಿರುವ ಯಂತ್ರೋಪಕರಣಗಳ ಮಾಹಿತಿಯನ್ನು ನಮೂನೆ-3 ರಲ್ಲಿ ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸುವುದು.
- 26. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳನ್ನು ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರಗಳಲ್ಲಿ, ಇಲಾಖೆಯ ಬೀಜೋತ್ಪಾದನಾ ಕೇಂದ್ರಗಳಲ್ಲಿ (Departmental Seed Farms) /ತೋಟಗಾರಿಕೆ ಮತ್ತು ರೇಷ್ಠೆ ಇಲಾಖೆಗಳಲ್ಲಿ ನಡೆಸಲು ಸ್ಥಳಾವಾಕಾಶವಿದ್ದಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳನ್ನು ಅಧ್ಯತೆಯ ಮೇರೆಗೆ ಜಿಲ್ಲಾ ಅನುಷ್ಟಾನ ಸಮಿತಿಯ ಅನುಮೋದನೆ ಪಡೆದು ಸ್ಥಳಾಂತರಿಸುವುದು.
- 27. ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕಾರ್ಯಕ್ರಮ ಅನುಷ್ಟಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಈಗಾಗಲೇ ಹೊರಡಿಸಿರುವ ಸುತೋಲೆಗಳನ್ನಯ ಕಾರ್ಯಕ್ರಮ ಅನುಷ್ಟಾನಗೊಳಿಸುವುದು.

ಸೂಚನೆ: - ಸದರಿ ಮಾರ್ಗಸೂಚಿಯಲ್ಲಿ ಯಾವುದೇ ಬದಲಾವಣೆಗಳಿದ್ದಲ್ಲಿ ಕಾಲಕಾಲಕ್ಕೆ ಮಾಹಿತಿ ನೀಡಲಾಗುವುದು.



ANNEXURE IV: Agreement with Service Providers-SKDRDP & MM



This is an agreement made on 18th day of July 2014 between The Director of Agriculture. Department of Agriculture, Government of Karnataka

AND

The Executive Director.

Sri Kshethra Dharmashala Rural Development Project®, Dharmasthala

(herein after referred to as CHSC Facilitator) for establishment of Custom Hire Service Centre at 161 Hoblis of 25 Districts in Kamataka State to provide farmers facilities of agricultural machineries/implements on Hire basis.

Purpose of Establishment of CHSC Facilitator

Objectives of the Custom Hire Service Centres (CHSCs Facilitator)

Department of Agriculture provides subsidy for Farm Machinery like power tiller, cultivator etc by under Farm mechanization/ SMAM/ NFSM/ ISOPOM and other state sector schemes. Due to prohibitive cost of farm machinery small and marginal farmers are unable to own them. Thus, establishment of Custom Hire Service Centres Facilitator and shelfing farm machinery required for various farm activities right from land preparation to post harvest would enable small and marginal farmers to mechanise farm activities by way of hiring the farm machinery on nominal hire charges. The farm activity wise uses of different farm machinery are as follows

Sl. No	Farm Activity	Uses
1	Implements for Land Preparation	Land preparation for uniform sowing besides conserving water and soil.
2	Sowing /Planting Implements	Savings on input requirement beside uniformity in depth of sowing.
3	Implements for Inter cultivation	Weed control
4	Plant Protection equipment	Management of pest and diseases
5	Harvesting and Threshing	Better quality and quantity produce
6	Post Harvesting and Agro processing	

2

FOR SHRI KSHETHRA BHARMASTHALA RURAL DEVELOPMENT PROJECT R.I.

Executive Director

The specific objectives are:

- 1. In order to address the constraints in land preparation and development. by providing Farm machinery and equipment on Custom Hire Service busis.
- 2. To encourage in-situ moisture conservation and to harness the residual moisture of Kharif season for Rubi Pulses and Oilseeds.
- 3. To enhance the production and productivity of the crops.
- 4. To provide services of High Tech Farm Machinery to small and marginal farmers.
- 5. The Department of Agriculture proposes to establish 186 Custom Hire Service Centres Facilitator at hobli (Except in urbanised hobli) level in all the 30 districts of the State.

PROPOSAL:

Whereas, SKDRDPic had proposed to establish Custom Hire Service Centers Facilitator at 161 enlisted hoblis in 25 Districts of Karnataka State through E-tender. The Department of Agriculture has sanctioned the proposal to establish 161 Custom Hire Service Centers Facilitator vide work order dated: 04.07.2014. (List enclosed)

CONDITIONS:

- 1) Preference should be given to Small and Marginal farmers during hiring
- 2) The area of the operation of the Charitable Trust/Organisations/Non Government Organisations (NGO) should be at District level.
- 3) Farm implements worth Rs. 50.00 lakh will be shelfed in one CHSC facilitator based on the local needs.
- 4) Running Expenditure like salary of the personnel in charge of CHSC facilitator, rent, fuel charges, repairs and maintenance charges etc. shall

Executive Director

- he borne by the Charitable Trust /Organisations/Non Government Organisations (NGO).
- Charitable Trust/Organisations/Non Government Organisations (NGO) have to maintain separate bank account for each CHSC at hobbi level.
- 6) Profit generated by the Custom Hiring Centres has to be reinvested for strengthening of Centre so as to attain sustainability.
- 7) The Department of Agriculture has sanctioned to establish 161 CHSC facilitator (Minimum Rs.50.00 lakhs per centre) during the year 2014-15. During the first year, Government assistance in the form of Back Ended Subsidy will be Rs. 37.50 lakhs (75%) and the participant has to contribute minimum of Rs. 12.50 lakhs (25 %). During the second year the Government has to contribute Rs.12.50 lakhs and participant has to contribute minimum of Rs.12.50 lakhs per centre.
- 8) In the subsequent phase preference will be given to the successfully performing Charitable trusts / Organisations / Non Government Organisations (NGO) for establishing additional CHSC facilitators subjected to the terms and conditions.
- Any disputes arriving during the implementation of the project will be resolved and settled at the level of Department of Agriculture only.
- All selected Charitable Trusts/Organisations/Non-Government Organisations (NGO) should submit Audited statement every year.
- Hobli level survey should be conducted for the selection of implements which should be crop, farmer need and region specific.
- 12) Fixing of the Hiring Charges: The hiring and service charges for tractor and other equipment shall be fixed by the District Steering Committee locally depending on the local prevailing market rate headed by Zilla Panchayat CEO, Joint Director of Agriculture (Member Secretary), leading farm machinery manufacturer in the District, ADA (SMS) and 2 progressive farmers / Krishi Prashasthi Awardee, CHSC

For SHRI KSHETHRA DHARMASTHALA RURAL DEVELOPMENT PROJECT (R.)

Executive Director

facilitator representative, University of Agricultural Sciences representative as members. The committee shall take into account the fuel prices, interest payable to bank on loan and return on investment, salary of drivers/operators, repairs, rent, both preventive and breakdown, distance from Service Centre to fields, wears and tears, life of the machinery and other incidental expenses including establishment expenses while determining the hiring charges. Separate hiring charges should be fixed for Small & Marginal Farmers as a category and other category farmers, wherein hiring charges for Small and Marginal category farmers will be lower than the other category farmers. Rates should be reasonable and realistic and should be in reference to market rates as obtaining from time to time.

The successful Charitable Trusts/Organisations/Non-Government Organisations (NGO) will have to establish Hi-Tech Custom hiring centre within 3 months from the date of issue of work order. The departmental officers will monitor the progress and after physical verification the subsidy will be released to the bank.

* Back Ended Subsidy:- The successful CHSC facilitator need to open Bank account and deposit their share (Rs.12.50 lakhs) in this account. The CHSC facilitator has to finalise the list of farm equipment/implements based on the local needs which has to be approved in the District Committee headed by district Chief Executive Officer (CEO) and has to place the order with the manufacturers/suppliers empanelled by the Department for other departmental schemes. If the implements required by the district for the establishment of CHSC facilitator is not in departmental empanelled list then such implements list should be approved by the district committee and should procure the same as per the KTTP act. Whereas, the Government share (Rs.37.50 lakh) would be released to the CHSC facilitator account to be further

For SHRI KSHETHRA DHARMASTIJALA RURAL DEVELOPMENT PROJECT (R.)

Executive Director-

transferred to the equipment/implement suppliers account as soon as order is placed with different suppliers and requisite verification is done by department officials.

PENALTIES FOR VIOLATIONS AND NON PERFORMANCE

If the Custom Hire Service Centre facilitator does not run properly (failure or closing of the centre), the concerned Charitable Trusts/ Organisations/ Non-Government Organisations (NGO) should refund/ remit full subsidy amount after taking into account the depreciation value of the machineries of the respective year. However force majeure will be considered.

RELATION BETWEEN THE PARTIES

Nothing contained herein shall be constituted as establishing a relation of employer and employee or master and servant or of principal and agent as between the Director of Agriculture and the organization selected for establishment of CHSC facilitator. The CHSC facilitator subject to this contract have complete charge of their personnel and shall be fully responsible for the facilities provided by them or their behalf hereunder.

i. Law Governing Agreement

This Agreement, its meaning and interpretation and the relation between parties shall be governed by the applicable law.

ii. Taxes and Duties

The CHSC facilitator shall pay such taxes, duties, fees and other impositions as may be levied under the applicable law.

iii. Duration of the Agreement

This Agreement is valid for a period of six years from the date of signing the agreement and should compulsorily run for six years. The agreement may be extended further on mutually agreed terms subject to the satisfactory performance of the CHSC facilitator.

Area of operation

The operational area specified to the CHSC facilitator under this agreement shall be Hobli level.

Entire Agreement

This agreement contains all covenants and stipulation and provisions agreed by the parties. It shall be in sole discretion power of the Commissioner, Department of Agriculture to change, alter and modify the terms and conditions governing the contract if found necessary, in consultation with Director of Agriculture and the CHSC facilitator.

a) Conditions for CHSC facilitator

The CHSC facilitator should perform the required requisite assigned work of providing agricultural machineries/ implements on Hire basis at reasonable rates as per the stipulated guidelines and time frame given by the concerned authorities.

vi. Termination of the Agreement

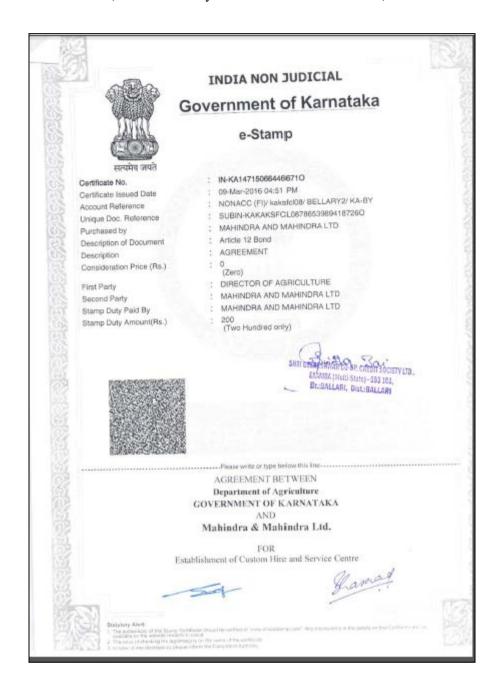
a) The Director of Agriculture may recommend to the Commissioner for Agriculture for termination of the agreement if the quality of work or the progress being made towards achieving the objectives of the project are not satisfactory.

vii. Settlement of Disputes

- 1. The venue of arbitration shall be Bangalore and appointment of arbitrator shall be in accordance with the provision of Arbitration and Conciliation Act of 1996.
- 2. In this agreement, its meaning and interpretation and relation between the parties shall be governed by the applicable law.

IN WITNESS WHEREOF, the undersigned or duly appointed representatives of DEPARTMENT OF AGRICULTURE, GOVERNMENT OF KARNATAKA, SRI KSHETHRA DHARMASHALA RURAL DEVELOPMENT PROJECT (0), DHARMASTHALA. respectively have on behalf of the State Government and the SRI KSHETHRA DHARMASHALA RURAL DEVELOPMENT PROJECT ®, DHARMASTHALA, signed the present AGREEMENT on the dates indicated below their respective signature. On behalf of the On behalf of the Department of Agriculture Sri Kshethra Dharmashala Rural Development Project ® Signature Name: Dr. L.H.Manjunath The U.S. Designation: Designation: Executive Director Address: SKDRDP® Dharmashree Building, Address: Dharmasthala - 574216. Belthangady Taluk, Seal: Department of Agriculture
No. 1, Seshdari Road, Bangalore-1 D.K Dist Date: 18.07.2014 Witness -1: Manoj Menezes Director Witness -2: Subhash M Chief Coordinator Executive Director

IN WITNESS WHEREOF, the undersigned or duly appointed representatives of DEPARTMENT OF AGRICULTURE, GOVERNMENT OF KARNATAKA, And SRI KSHETHRA DHARMASHALA RURAL DEVELOPMENT PROJECT 00. DHARMASTHALA. respectively have on behalf of the State Government and the SRI KSHETHRA DHARMASHALA RURAL DEVELOPMENT PROJECT ®, DHARMASTHALA, signed the present AGREEMENT on the dates indicated below their respective signature. On behalf of the On behalf of the Sri Kshethra Dharmashala Rural Department of Agriculture Development Project ® Signature Name: Dr. L.H.Manjunath Designation: Designation: Executive Director Address: SKDRDP® Dharmashree Building, Address: Dharmasthala - 574216. Belthangady Taluk, Seal: Department of Agriculture
No. 1, Seshdari Road, Bangalore-1 Date: 18.07.2014 Witness -1: Manoj Menezes Director Witness -2: Subhash M Chief Coordinator Executive Director



This is an agreement made on 15th day of March 2016 between the Director of Agriculture, Department of Agriculture, Government of Karnataka AND the Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956) / Organisations / Non Government Organisations (NGO)/Farm machineries Manufacturers – Mahindra & Mahindra Ltd. (Herein after referred to as CH&SC Service Provider) for establishment of Custom Hire and Service Centres in 5 Districts as per Annexure to provide facilities of agricultural machineries/implements to farmers on Hire basis.

Preferably the CH&SC Service Provider should establish the Custom Hire Service Centers, however they are at the liberty to use their franchisee for the establishment of Custom Hire Service Centers. However, it is the responsibility of the CHL&SC Service Provider to abide by the terms and conditions of the Expression of Interest.

I. Purpose of Establishment of CH &SC

Department of Agriculture provides subsidy for Farm Machinery under Farm Mechanization/SMAM/NFSM/ISOPOM and other state sector schemes. Due to prohibitive cost of farm machineries, small and marginal farmers are unable to own them. Thus, establishment of Custom Hire and Service Centres and Shelfing farm machinery required for various farm activities right from land preparation to post harvest would enable small and marginal farmers to mechanise farm activities by way of hiring the farm machinery on nominal hire charges. The farm activity wise uses of different farm machinery are as follows:

Sl. no.	Farm Activity	Uses
1	Implements for Land Preperation	Land preparation for uniform sowing besides conserving water and soil.
2	Sowing /Planting Implements	Savings on input requirement beside uniformity in depth of sowing.
3	Implements for Inter cultivation	Weed control
4	Plant Protection equipments	Management of pest and diseases
5	Harvesting and Threshing	Better quality and quantity produce
6	Post Harvesting and Agro processing	

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The specific objectives are:

- In order to address the constraints in land preparation and development, by providing Farm machinery and equipments on Custom Hire Service basis.

 To encourage in-situ moisture conservation and to harness the residual moisture of Kharif season for Rabi Pulses and Oilseeds.

 To enhance the production and productivity of the crops.
 - To provide services of High Tech Farm Machinery to small and marginal farmers.

II. CONDITIONS:

- CH&SC Service Provider should submit the Annual Utilisation Certificate showing the financial transactions.
- 2) Preference should be given to Small and Marginal farmers during hiring out.
- 3) The area of the operation of the CH&SC Service Provider should be at District level.
- During 1st year Farm implements worth Rs.50.00 Iakh (SLAB-1) & Rs.40.00 Iakh (SLAB-2) will be shelfed in one CHSC based on the local needs.
- Running Expenditure like salary of the personnel incharge of CHSC, Rent, Fuel charges,
 Repairs and Maintainance charges etc., shall be borne by the CH&SC Service Provider.
- CH&SC Service Provider should maintain separate bank account for each centre for the CHSC purpose.
- Profit generated by the Custom Hiring Centers has to be reinvested for strengthening of Center so as to attain sustainability.
- 8) The Department of Agriculture proposes to establish CHSCs with an investment of Rs.50.00 lakhs for SLAB-1 & Rs.40.00 lakh for SLAB-2 per center, during the the first year, Government assistance in the form of Back Ended Subsidy will be Rs. 37.50 lakhs (75%) for SLAB-1 and Rs. 30.00 lakhs (75%) for SLAB-2 and the CH&SC Service Provider should contribute Rs. 12.50 lakhs (25 %) for SLAB-1 and Rs.10.00 lakhs (25%) for SLAB-2. During the second year the Government will contribute Rs.12.50 lakhs for SLAB-1 and CH&SC Service Provider should contribute Rs.12.50 lakhs for SLAB-1 per center and for SLAB-2 Government will contribute Rs.5.00 lakh per center and the CH&SC Service Provider should contribute Rs.5.00 lakh per center.

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- 9) In the subsequent phase, preference will be given to the successfully performing CH&SC Service Provider for establishing additional CHSCs subjected to the Terms and Conditions.
- 10) Any disputes arriving during the implementation of the project will be resolved and settled at the level of Commissioner for Agriculture only.
- 11) All selected CH&SC Service Provider should submit. Audited statement every year.
- 12) Hobli level survey should be conducted for the selection of implements which should be crop, farmer need and region specific.
- 13) The ownership of the equipments/machines/implements shelfed under this programme in the CH&SC rests with both the parties proportionately as per their investment for machineries.

Fixing of the Hiring Charges:

The hiring and service charges for tractor and other equipments shall be fixed locally by the Districts Implements Committee, depending on the local prevailing market rates. Districts Implements Committee headed by Zilla Panchayat CEO with District Joint Director of Agriculture as Member Secretary and leading farm machinery manufacturer in the District, ADA (SMS) and 2 progressive farmers, President of District Krishi Samaaj, Krishi Prashasthi Awardee, CH&SC Service Provider representative, University of Agricultural Sciences representative as members. The committee shall take into account the fuel prices, interest payable to bank on loan and return on investment, salary of drivers, repairs, rent, both preventive and breakdown, distance from Service Centre to fields, wears and tears, life of the machinery and other incidental expenses including establishment expenses while determining the hiring charges. Rates should be reasonable and realistic and should be in reference to market rates as obtained time to time and reviewed in per frequency act.

The successful CH&SC Service Provider should establish Hi-Tech Custom hiring centre within 3 months from the date of issue of work order. The departmental officers will monitor the progress and after physical verification the subsidy will be released to the bank.

iii. Duration of the Agreement

This Agreement is valid for a period of six years from the date of signing the agreement and should compulsorily run for six years. The agreement may be extended further on mutually agreed terms subject to the satisfactory performance of the CH&SC. The income generated from the CH&SC shall be plugged back for the further development and strengthening of the CH&SC so that it can run even after six years.

iv. Area of operation

The operational area specified to each CH&SC under this agreement shall be Hobli

v. Entire Agreement

This agreement contains all covenants and stipulation and provisions agreed by the parties, It shall be in sole discretion power of the Commissioner for Agriculture, Department of Agriculture to change, alter and modify the terms and conditions governing the contract if found necessary, in consultation with the concerned parties.

Conditions for CH&SC

The CH&SC should perform the required requisite assigned work of providing agricultural machineries/ implements on Hire basis at reasonable rates as per the stipulated guidelines and time frame given by the concerned authorities.

vi. Termination of the Agreement: The Director of Agriculture may recommend to the Commissioner for Agriculture for termination of the agreement if the quality of work or the progress being made towards achieving the objectives of the project are not satisfactory.

vii. Settlement of Disputes

- 1. The venue of arbitration shall be Bangalore and appointment of arbitrator shall be in accordance with the provision of Arbitration and Conciliation Act of 1996.
- 2. In this agreement, its meaning and interpretation and relation between the parties shall be governed by the applicable law.

Gramas.

IN WITNESS WHEREOF, the undersigned or duly appointed representatives of Department of Agriculture, Government of Karnataka, and the Mahindra and Mahindra Ltd



* Back Ended Subsidy:- The successful CH&SC Service Provider need to open Bank account and deposit their share [(Rs.12.50 lakhs) (SLAB-1) & Rs.10.00lakhs (SLAB - 2)] in this account. The CH&SC Service Provider has to finalize the list of farm equipments/implements based on the local needs which has to be approved in the District Implements Committee and has to place the order with the manufacturers/suppliers who are empanelled by the Department or approved by Director General of Supplies and Disposals (DGS&D) for more than 25HP tractors. If the implements required by the district for the establishment of CHSC is not in departmental empanelled list or in DGS&D list, then such implements list should be approved by the district committee and should procure the same as per the KTPP act. Where, as the Government share [(Rs.37.50 lakh) (SLAB-1) & Rs.30.00lakh (SLAB-2)] would be released to the agency's bank account to be further transferred to the equipment/implement suppliers account as soon as order is placed with different suppliers and requisite verification is done by department officials.

IV. PENALTIES FOR VIOLATIONS AND NON PERFORMANCE

If the Custom Hire Service Center does not run properly (failure or closing of the center), the concerned CH&SC Service Provider should refund/ remit full subsidy amount along with interest amount as per prevailing bank rate. However force majeure will be consider

V. RELATION BETWEEN THE PARTIES

Nothing contained herein shall be constituted as establishing a relation of employer and employee or master and servant or of principal and agent as between the Director of Agriculture and the organization selected for establishment of CH&SC. The CH&SC subject to this contract have complete charge of their personnel and shall be fully responsible for the services performed by them or their behalf bereunder.

i. Law Governing Agreement.

This Agreement, its meaning and interpretation and the relation between parties shall be governed by the applicable law.

ii. Taxes and Duties

The CH&SC Service Provider shall pay such taxes, duties, fees and other impositions as may be levied under the applicable law.

respectively have on behalf of the State Government and the CH&SC - Service Provider signed the present AGREEMENT on the dates indicated below their respective signature. On behalf of the Department of Agriculture On behalf of the CH&SC-Service Provider Signature Name: SUJAY KARNAD Designation: DY.GM-Business Expansion. Designation: Director of Agriculture Designation:

Director of Agriculture
Department of Agriculture
Address: No. 1, Seshdari Road, Hangalor Address: MAHINDRA & MAHINDRA LTD,
AFS TOWER MELLOW GATE, KANDIVLI
EAST MUMBAI #400101 owers.

Seal: 1st Floor, Candow Gate)
Akurit Rose, Kandvall (E)
Akurit Rose, Kandvall (E)
Date: 15 3 6 Date: 15 March 2016 Date: 15 3 16 Witness -1: Jagdish Bagehalli 09663894321 Witness -2: Bheemasha LT. 09972587182

			Annexure		
			CHSC allocation		
		Mahir	ndra & Mahind		
	Sl.no.	Districts	Total Centers alloted	Centers allocated as per EOI	Additional centers allocated
	1	Kalburgi	17	14	3
	2	Bellary	12	10	2
	- 3	Yadgir	7	6	1
	4	Raichur	14	12	2
	5	Koppal	12	8	4
		Total	62	50	12
For MAINIMEN Author	ar sed 519	IINDRA LTD.		Director of	Agriculture

ANNEXURE V: Proceeding of the District Implements Committee Meeting of Bengaluru Rural district held on 19.11.2019

ದಿನಾಂಕ: 05.08.2016 ರಂದು ಏರ್ಪಡಿಸಿದ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕ, ಅಧಿಕಾರಿಗಳು, ಅದ್ಯಕ್ಷತೆಯಲ್ಲಿ ಜಿಲ್ಲಾ ಪಂಚಾಯತ್ ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಜಿಲ್ಲೆ ರವರ ಕಛೇರಿಯಲ್ಲಿ ನಡೆದ ಜಿಲ್ಲಾ ಸಮಿತಿ ಸಭೆಯಯಲ್ಲಿ ಕೃಷಿ ಯಂತ್ರಧಾರೆ, (ಜಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರ)ಗಳ ಅನುಷ್ಠಾನ ಸಮಿತಿ ಸಭೆಯ ನಡವಳಿಗಳು.

ಮೊದಲಿಗೆ ಸಮಿತಿ ಅಧ್ಯಕ್ಷರನ್ನು ಮತ್ತು ಹಾಜರಿದ್ದ ಎಲ್ಲಾ ಸದಸ್ಯರನ್ನು ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕ ರವರು ಸ್ವಾಗತಿಸಿದರು. ನಂತರ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರುರವರು 2014–15ರಲ್ಲಿ ಸ್ಥಾಪಿಸಿದ ಕೇಂದ್ರಗಳು ಶ್ರೀ ಕ್ಷೇತ್ರ ಧರ್ಮಸ್ಥಳ ಗ್ರಾಮಾಭವೃಧ್ಧಿ ಸಂಸ್ಥೆ (೦) ಧರ್ಮಸ್ಥಳ ಇವರಿಗೆ ನೀಡಿದೆ ಹಾಗೂ 2015–16ಕ್ಕೆ 6 ಮತ್ತು ಹೆಚ್ಚುವರಿಯಾಗಿ ಒಂದು ಕೇಂದ್ರ ಒಟ್ಟು 7ಕೇಂದ್ರಗಳನ್ನು VST ಸಂಸ್ಥೆಗೆ ಇಲಾಖಾ Tender ಮೂಲಕ ನೀಡಲಾಗಿದೆ ಎಂದು ತಿಳಿಸಿದರು. ಹಾಗೆಯೇ ಹಳೇ ಕೇಂದ್ರದಲ್ಲಿ, ತಾಲ್ಲೂಕಿಗೊಂದರಂತೆ ಹೋಬಳಿ ಮಟ್ಟದಲ್ಲಿ ದೊಡ್ಡಬಳ್ಳಾಹುರ, ದೊಡ್ಡಬೆಳವಂಗಲ ಹೋಬಳಿಯ ಚಿಕ್ಕಬೆಳವಂಗಲದಲ್ಲಿ, ದೇವನಹಳ್ಳಿಯ ಚನ್ನರಾಯಪಟ್ಟಣದಲ್ಲಿ, ಹೊಸಕೋಟೆ ತಾಲ್ಲೂಕಿನ ಅನುಗೊಂಡನಹಳ್ಳಿ ಹೋಬಳಿಯ ದೇವನಗೊಂದಿ ಹಾಗೂ ನೆಲಮಂಗಲ ತಾಲ್ಲೂಕಿನ ತ್ಯಾಮಗೊಂಡ್ನು ಹೋಬಳಿಯ ಕಳಲುಘಟ್ಟ ಗ್ರಾಮದಲ್ಲಿ ಸ್ಥಾಪಿಸಲಾಗಿದೆ. ಒಟ್ಟಾರೆ ಜಿಲ್ಲೆಯಲ್ಲಿ 276 ಯಂತ್ರೋಪಕರಣಗಳು ಬಾಡಿಗೆಗೆ ಲಭ್ಯವಿರುತ್ತದೆ, ಮೊದಲನೇ ವರ್ಷದಲ್ಲಿ ಸರ್ಕಾರದ ವತಿಯಿಂದ ರೂ 37.500 ಲಕ್ಷ ಸಂಸ್ಥೆಯ ಪಾಲು ರೂ 12.50 ಲಕ್ಷ (ಪ್ರತೀ ಕೇಂದ್ರಕ್ಕೆ 75:25ರ ಅನುಪಾತದಲ್ಲಿ ಒಟ್ಟು ರೂ 50.00 ಲಕ್ಷಗಳು ಹಾಗೂ ಕೇಂದ್ರದ ಯಶಸ್ತು ಮತ್ತು ಪ್ರಗತಿ ಆಧರಿಸಿ ಎರಡನೇ ವರ್ಷದಲ್ಲಿ ಪ್ರತೀ ಕೇಂದ್ರಕ್ಕೆ ಶೇ 50:50 ರ ಅನುಪಾತದಲ್ಲಿ) ಸರ್ಕಾರದ ಪಾಲು ರೂ 12.50 ಲಕ್ಷ ಸಂಸ್ಥೆಯ ಪಾಲು ರೂ 12.50 ಲಕ್ಷಗಳ ಸಹಾಯಧನವನ್ನು Back ended subsidy ರೂಪದಲ್ಲಿ ನೀಡಲಾಗಿದೆ ಎಂದು ತಿಳಿಸಿದರು.

2. 2014-15ನೇ ಸಾಲಿನಿಂದ ನಿರ್ವಹಿಸುತ್ತಿರುವ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಗಳ ಪ್ರಗತಿ ಪರಿತೀಲನೇ

ಜಿಲ್ಲೆಯ ಪ್ರಗತಿಯನ್ನು ಗಮನಿಸಿದರೆ ಇದುವರಗೆ 59 ಆರಿವು ಮೂಡಿಸುವ ಕಾರ್ಯಕ್ರಮಗಳನ್ನು ನಡೆಸಿರುತ್ತಾರೆ, ಆದಾಯ ರೂ 33.29 ಲಕ್ಷಗಳು, ಇಂಧನಕ್ಕಾಗಿ ಖರ್ಚು ರೂ 16.18 (49%) ಲಕ್ಷಗಳು, ವೇತನಕ್ಕಾಗಿ ರೂ 6.02 ಲಕ್ಷಗಳು (18%), ರಿವೇರಿ ಮತ್ತು ನಿರ್ವಹಣೆ ರೂ 3.50 ಲಕ್ಷಗಳು (11%), ಇತರೆ ಖರ್ಚು ರೂ 7.76 (23%), ಲಕ್ಷಗಳು ಮತ್ತು ನಿವ್ವಳ ಆದಾಯ ರೂ 0.92 ಲಕ್ಷಗಳು, ನಿವ್ವಳ ಆದಾಯದಲ್ಲಿ ಚನ್ನರಾಯಪಟ್ಟಣ ಕೇಂದ್ರದಲ್ಲಿ ಋಣಾತ್ಮಕ ಪ್ರಗತಿ ಇರುವುದನ್ನು ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು, ದೇವನಹಳ್ಳಿ ಇವರಿಗೆ ಸ್ಪಷ್ಟನೆ ನೀಡಲು ತಿಳಿಸಿದರು. ಇದಕ್ಕೆ ಉತ್ತರಿಸಿದ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು, ದೇವನಹಳ್ಳಿ ಇವರು ಈ ಕೇಂದ್ರದ ಭಾಗದಲ್ಲಿ ಸುಮಾರು ರೈತರು ತಾವೇ/ಸ್ವತಃ ಯಾಂತ್ರೀಕರಣ ಅಳವಡಿಸಿಕೊಂಡಿರುತ್ತಾರೆ ಮತ್ತು ಕೇಂದ್ರದಲ್ಲಿ ಕೆಲವು ಉಪಕರಣಗಳು ಬೇಡಿಕೆ ಇಲ್ಲದೆ ಅನುಪಯುಕ್ತಗೊಂಡಿರುವುದರಿಂದ ಪ್ರಗತಿ ಕುಂಶಿಕಕ್ಕೆ ಕಾರಣವಾಗಿರಬಹುದೆಂದು ಸಭೆಗೆ ತಿಳಿಸಿದರು. ನಂತರ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಹೊಸಕೋಟೆ ಕೂಡ ಯಣಾತ್ಮಕ ಪ್ರಗತಿ ಇದ್ದು ಇದಕ್ಕೆ ಕಾರಣ ನೀಡುವಂತೆ ಕೇಳಲಾಗಿ , ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು, ಹೊಸಕೋಟೆ ಇವರು ಉತ್ತರಿಸುತ್ತಾ ಈ ಕೇಂದ್ರದ ವ್ಯಾಪ್ತಿಯ ಮ್ಯಾನೇಜರ್ ಬದಲಾವಣೆಯಾಗಿ ಮತ್ತು ಜಾಲಕರು ಕೂಡ ಯಾರು ಸರಿಯಾಗಿ ಕೆಲಸ ನಿರ್ವಹಿಸಲಿಲ್ಲ ಹೀಗಾಗಿ ರೂ 3-5.0 ಲಕ್ಷಗಳ ಋಣಾತ್ಮಕ ಪ್ರಗತಿ ಇದ್ದಮ್ಮ ಈಗ ರೂ 1.0 ಲಕ್ಷಕ್ಕೆ ಇಳಿದಿದೆ ಎಂದು ತಿಳಿಸಿದರು. ನಂತರ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ದೊಡ್ಡಬಳ್ಳಾಮರ ಕೇಂದ್ರವು ರಾಜ್ಯದಲ್ಲಿಯೇ ಸತತವಾಗಿ 3 ಮತ್ತು 4ನೇ ಸ್ಥಾನದಲ್ಲಿದ್ದು, ನೆಲಮಂಗಲ 25ನೇ ಸ್ವಾನದಲ್ಲಿರುತ್ತದೆ. ಎಂದು ತಿಳಿಸಿದರು. ಹಾಗೆಯೇ ಸಂಸ್ಥೆಯವರಾದ ಶ್ರೀ ಕ್ಷೇತ್ರ ಧರ್ಮಸ್ಥಳ ಗ್ರಾಮಾಭವೃದ್ಧಿ ಸಂಸ್ಥೆ (ರಿ) ಧರ್ಮಸ್ಥಳ ಇವರಿಂದ ಇತ್ತೀಚಿಗೆ

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ಆಸಕ್ತಿ ಕಡಿಮೆಯಾಗಿದ್ದು ಪ್ರತೀ ಕೇಂದ್ರದಲ್ಲಿ 5ಜನ ಸಿಬ್ಬಂದಿ ಕಡ್ಡಾಯವಾಗಿ ನಿರ್ವಹಿಸಬೇಕು ಆದರೆ ಮ್ಯಾನೇಜರ್ ಆಗಲಿ ಕ್ಷೇತ್ರ ಸಹಾಯಕರಾಗಲಿ ಯಾವ ರೀತಿಯ ಕೆಲಸ ನಿರ್ವಹಿಸುತ್ತಿದ್ದಾರೆಂಬ ಸ್ಪಷ್ಟತೆ ಇಲ್ಲ ಎಂದು ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ಪ್ರಶ್ನಿಸಿದರು. ಹಾಗೆಯೇ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಸಹ ಇದೆ ರೀತಿಯಾಗಿ ಎಲ್ಲಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಮ್ಯಾನೇಜರ್ ಇರಬೇಕು, ಸಿಬ್ಬಂದಿ ಎಲ್ಲರೂ ಕೌಶಲ್ಯರಾಗಿದ್ದರಾ? ಯಾವುದೇ ರೀತಿ ತೊಂದರೆಯಾಗದಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು, ಇಲ್ಲದೆ ಇದ್ದ ಪಕ್ಷದಲ್ಲಿ ಇದರಿಂದ ಕೇಂದ್ರಕ್ಕೂ ಮತ್ತು ಸರ್ಕಾರಕ್ಕೂ ಕೆಟ್ಟ ಹೆಸರು ಬರದಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು ಎಂದು ಸೂಚಿಸಿದರು.

3. ಹೊಸ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಸ್ಥಾಪಿಸುವ ಬಗ್ಗೆ.

ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಜಿಲ್ಲೆಯಲ್ಲಿ ಎಷ್ಟು ಹೋಬಳಿಗಳಿವೆ ಎಂದು ಕೇಳಲಾಗಿ. ಇದಕ್ಕೆ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಜಿಲ್ಲೆಯಲ್ಲಿ ಒಟ್ಟು 17 ಹೋಬಳಿಗಳಿಗೆ, ಕಳೆದ ಸಾಲಿನಲ್ಲಿ 4 ಕೇಂದ್ರಗಳು ಸ್ಥಾಪಿಸಿದ್ದು. ಈ ಸಾಲಿಗೆ ಅಂದರೆ 2015–16 ಕ್ಕೆ 7 ಕೇಂದ್ರಗಳು ನಿಗಧಿಯಾಗಿರುತ್ತದೆ. (ಹೆಚ್ಚುವರಿ 1 ಕೇಂದ್ರ ಸೇರಿ), ಹಾಗೆಯೇ ಆಯ್ಕೆಯಾದ ಹೋಬಳಿಗೆ ಸಂಸ್ಥೆಯವರು ಮತ್ತು ಇಲಾಖಾ ಸಿಬ್ಬಂದಿಯ, ಮತ್ತು ಸ್ಥಳೀಯ ಜನ ಪ್ರತಿನಿಧಿಗಳ ಸಮ್ಮುಖದಲ್ಲಿ ಸರ್ವೇ ಮಾಡಿ, ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಪಟ್ಟಿಯನ್ನು ನಡವಳಿಗಳ ಮೂಲಕ 7 ಕೇಂದ್ರಗಳಿಂದ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ ಎಂದು ತಿಳಿಸಿದರು. ಹಾಗೆಯೇ ಹೆಚ್ಚುವರಿಯಾಗಿ ಆಯ್ಕೆಯಾದ ಕಸಬಹೋಬಳಿ, ದೊಡ್ಡಬಳ್ಳಾಸುರ ತಾಲ್ಲೂಕು ಇದಕ್ಕೆ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಒಪ್ಪಿಗೆಯನ್ನು ಸೂಚಿಸಿದರು.

ಈ ಸಾಲಿಗೆ ಆಯ್ಕೆಯಾದ ಕೇಂದ್ರಗಳ ವಿವರ

ಕ್ರಸಂ.	ತಾಲ್ಲೂಕು	ಹೋಬಳಿ
1	ದೇವನಹಳ್ಳಿ	ಕುಂದಾಣ
2	ದೊಡ್ಡಬಳ್ಳಾಮರ	ಮಧುರೆ
3	ದೊಡ್ಡಬಳ್ಳಾಮರ	ಸಾಸಲು
4	ದೊಡ್ಡಬಳ್ಳಾಮರ	ಕಸಬಾ (ಹೆಚ್ಚುವರಿ)
5	ಹೊಸಕೋಟೆ	ನಂದಗುಡಿ
6	ಹೊಸಕೋಟೆ	ಸೂಲಿಬೆಲೆ
7	ನೆಲಮಂಗಲ	ಸೋಂಮರ

4. ಹೊಸ ಕೃಷಿ ಯಂತ್ರಧಾರೆ-ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಖರೀದಿಸಬೇಕಾಗಿರುವ ಉಪಕರಣಗಳ ಬಗ್ಗೆ.

VST ಸಂಸ್ಥೆಯ ಪ್ರತಿನಿಧಿಗಳು ಈಗಾಗಲೇ ಎಲ್ಲಾ ಕೇಂದ್ರಗಳಲ್ಲಿ ಸರ್ವೇ ಕಾರ್ಯ ಮುಗಿದಿದ್ದು. ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲಾಗಿದೆ ಎಂದು ಸಭೆಗೆ ತಿಳಿಸಿದರು, ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರ ವರು ಸಲ್ಲಿಸಿರುವ ಪಟ್ಟಿಯಲ್ಲಿ ನ್ಯೂನ್ಯತೆಗಳಿದ್ದು 7 ಕೇಂದ್ರಗಳಿಗೆ ಕೇವಲ 3 ಸಂಯುಕ್ತ ಬಿತ್ತನೆ ಕೂರಿಗೆಗಳನ್ನು ತರಿಸಲಾಗಿದೆ. ಈಗಾಗಲೇ ಜಿಲ್ಲೆಯಲ್ಲಿ ಉತ್ತಮ ಮಳೆಯಾಗಿದ್ದು, ಬಿತ್ತನೆ ಕಾರ್ಯ ಕೂಡ ಉತ್ತಮವಾಗಿ ಸಾಗಬೇಕೆಂದರೆ ಪ್ರತೀ ಕೇಂದ್ರಕ್ಕೆ ಕನಿಷ್ಠ 2 ಸಂಯುಕ್ತ ಬಿತ್ತನೆ ಕೂರಿಕೆಗಳನ್ನು ಈ ಕೂಡಲೇ ಕೇಂದ್ರಗಳಲ್ಲಿಡಲು ಸೂಚಿಸಿದರು, ಇದಕ್ಕೆ ಸಂಸ್ಥೆಯವರು ಮಧುರೆ ಮತ್ತು ಹೆಸರಘಟ್ಟ ಕೇಂದ್ರಕ್ಕೆ ತರಿಸಿದ ಸಂಯುಕ್ತ ಬಿತ್ತನೆ ಕೂರಿಕೆಯನ್ನು ದೊಡ್ಡಬೆಳವಂಗಲದಲ್ಲಿ ಬಿತ್ತನೆ ನಡೆಸುತ್ತಿದ್ದು, ಅಗತ್ಯವಿರುವ ಕೇಂದ್ರಗಳಿಗೆ ಕೂಡಲೇ ವ್ಯವಸ್ಥೆ ಮಾಡುವುದಾಗಿ ತಿಳಿಸಿದರು; ಹಾಗೆಯೇ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು, ಈ ಪಟ್ಟಿಯಲ್ಲಿ Brush cutter, ಮೇವು ಕತ್ತರಿಸುವ ಯಂತ್ರ ಮತ್ತು Sprayer ಗಳಿಗೆ ಬೇಡಿಕೆ ಇಲ್ಲದಿರುವುದರಿಂದ. ಈ 3 ಉಪಕರಣಳನ್ನು ಕೈ ಬಿಡುವಂತೆ ಸೂಚಿಸಿದರು, ಅಲ್ಲದೇ

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ಕಳೆದ ಸಾಲಿನಲ್ಲಿ ಖರೀದಿಸಿದ ಈ 3 ಉಪಕರಣಗಳು ಅನುಪಯುಕ್ತವಾಗಿದ್ದು, ಈ ಸಾಲಿನಲ್ಲಿಯೂ ಮನರಾವರ್ತನೆಯಾಗದಂತೆ ನೋಡಿಕೊಳ್ಳಲು ತಿಳಿಸಿದರು. ಹಾಗೆಯೇ ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ ಅದರಲ್ಲೂ ತಮಿಳುನಾಡು ಮಾದರಿ ಖರೀದಿಸುವಂತೆ ಸೂಚಿಸಿದರು, ಇದಕ್ಕೆ ಪ್ರತಿಯಾಗಿ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಗಳು ಏಕೆ ತಮಿಳುನಾಡು ಮಾದರಿ ಎಂದು ಪ್ರಶ್ನಿಸಲಾಗಿ, ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ದಾವಣಗೆರೆ ಮತ್ತು ತಮಿಳುನಾಡು ಮಾದರಿಗಳಿದ್ದು, ದಾವಣಗೆರೆ ಮಾದರಿಗಿಂತ ತಮಿಳುನಾಡು ಮಾದರಿ ಕಾರ್ಯಕ್ಷಮತೆ ಇದ್ದು, ಇದನ್ನು ಖರೀದಿಸುವುದು ಉತ್ತಮ ಎಂದು ತಿಳಿಸಿದರು.

ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಗಳು Tree cutter ಖರೀದಿಸಬಹುದಲ್ಲವೇ ಎಂದು ಕೇಳಲಾಗಿ ಇದಕ್ಕೆ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು, ಮಾನ್ಯ ಕೃಷಿ ಸಚಿವರು ಉಳುಮೆ ಮತ್ತು ಇತರೇ ಉಪಕರಣಗಳಿಗೆ ಪ್ರಾಮುಖ್ಯತೆ ಕೊಡುವುದರಿಂದ ಆ ರೀತಿಯ ಉಪಕರಣಗಳನ್ನು ತರಿಸಲಾಗುವುದು ಎಂದು ತಿಳಿಸಿದರು, ಹಾಗೆಯೇ ಸಾಸಲು ಹೋಬಳಿಯಲ್ಲಿ ಪೂರ್ತಿಯಾಗಿ ಮುಸುಕಿನ ಜೋಳ ಬಿತ್ತುವುದರಿಂದ, (ಕಟಾವು & ಒಕ್ಕಣೆ) ಯಂತ್ರಕ್ಕೆ ತೆಗೆದುಕೊಳ್ಳುವ ಯೋಜನೆ ಇದೆ ಹಾಗಾಗಿ ನಾವು ಟೆಂಡರ್ನ್ನು ಕರೆಯಬಹುದು. (ರೂ.18.0 ಲಕ್ಷ), ಹಾಗೆಯೇ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಗಳು ಟೆಂಡರ್ನ್ನು ನವೆಂಬರೊಳಗೆ ಕರೆಯುವಂತೆ ತಿಳಿಸಿದರು.

ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಯಾವುದಾದರೂ ಕೇಂದ್ರದಲ್ಲಿ ತೊಂದರೆ ಇದ್ದರೆ ತಿಳಿಸುವಂತೆ ಸಂಸ್ಥೆಯವರಿಗೆ ಕೇಳಿದರು, ಅದರಂತೆ ಸಂಸ್ಥೆಯವರು, ಕುಂದಾಣ ಮತ್ತು ಮಧುರೆ ಹೊಬಳಿಗಳಲ್ಲಿ ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರ ನಿರ್ಮಾಣ ಹಂತದಲ್ಲಿರುವುದರಿಂದ ಈ ವಿಷಯವನ್ನು ಇಬ್ಬರು ಶಾಸಕರಲ್ಲಿ ಪ್ರಸ್ತಾಪಿಸಿದಾಗ ಸದ್ಯಕ್ಕೆ ಕುಂದಾಣ ಹೋಬಳಿಯ ಕುಂದಾಣ ಮತ್ತು ಚಪ್ಪರದಕಲ್ಲು ಮಧ್ಯಭಾಗ ರೈತರ ಮನೆಯ ಹತ್ತಿರ Shedd ನಿರ್ಮಾಣ ಆಗಿದೆ ಹಾಗೂ Agreement ಕೂಡ ಮಾಡಲಾಗಿದೆ. ಮತ್ತು ಮಧುರೆ ಹೋಬಳಿಯ ಗ್ರಾಮಪಂಚಾಯಿತಿ ಪಕ್ಕದಲ್ಲಿ ಜಾಗ ಗುರ್ತಿಸಿದ್ದು ಸದ್ಯದಲ್ಲೇ ಪ್ರಾರಂಭಿಸಲಾಗುವುದೆಂದು, ತಿಳಿಸುತ್ತಾ, ಇದನ್ನು ಒಪ್ಪಿದ ಶಾಸಕರು ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರ ನಿರ್ಮಾಣದ ನಂತರ ಕೇಂದ್ರವನ್ನು ಸ್ಥಳಾಂತರಿಸುವಂತೆ ತಿಳಿಸಿದರು ಎಂದು ಸಭೆಗೆ ಹೇಳಿದರು.

ಸಾಸಲು, ಕಸಬ, ದೊಡ್ಡಬಳ್ಳಾಮರ ಮತ್ತು ಸೋಂಪುರ ಇಲ್ಲಿ ಇಲಾಖಾ ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರವಿರುವುದರಿಂದ ಜಾಗದ ಸಮಸ್ಯೆ ಇರುವುದಿಲ್ಲ ಎಂದು ತಿಳಿಸಿದರು. ಹೊಸಕೋಟೆ ತಾಲ್ಲೂಕಿನ ನಂದಗುಡಿ ಖಾಸಗೀ ಜಾಗದಲ್ಲಿ (ಪೊಲೀಸ್ ಸ್ಟೇಶನ್ ಪಕ್ಕದಲ್ಲಿ) Agreement ಆಗಿದೆ ಮತ್ತು ಸೂಲೀಬೆಲೆಯ ಗ್ರಾಮ ಪಂಚಾಯಿತಿ ಅಧ್ಯಕ್ಷರಿಗೆ ಸೇರಿದ ಖಾಸಗೀ ಶಾಲೆ ಆವರಣದಲ್ಲಿ ಜಾಗ ಇರುವುದರಿಂದ ಅಲ್ಲಿಯೇ ಕೇಂದ್ರವನ್ನು ಸ್ಥಾಪಿಸಲಾಗುವುದೆಂದು ಸಭೆಗೆ ತಿಳಿಸಿದರು.

ಹಾಗೆಯೇ ಈಗಾಗಲೇ ಖರೀದಿಸಿದ ಯಂತ್ರೋಪಕರಣಗಳ ಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸುತ್ತಾ, ಬಾಡಿಗೆ ದರ ನಿಗಧಿಪಡಿಸುವಂತೆ ಸಂಸ್ಥೆಯವರು ಕೇಳಿಕೊಂಡರು ಇದಕ್ಕೆ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಪ್ರತಿಕ್ರಿಯಿಸುತ್ತಾ, 2014–15ರಲ್ಲಿ ಸ್ಥಾಪಿಸಲಾದ/ಹಳೇ ಕೇಂದ್ರದಲ್ಲಿ ಯಾವ ದರ ನಿಗದಿಪಡಿಸಿದೆಯೊ ಅದೇ ರೀತಿ ನಿರ್ವಹಿಸುವಂತೆ ಸೂಚಿಸಿದರು. ಇದಕ್ಕೆ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಯವರು ಸಹ ಸಮ್ಮತಿಯನ್ನು ನೀಡಿದರು ಅದೇ ರೀತಿಯಾಗಿ ಶ್ರೀ ಕ್ಷೇತ್ರ ಧರ್ಮಸ್ಥಳ ಗ್ರಾಮಾಭಿವೃಧ್ದಿ ಸಂಸ್ಥೆಯವರು ಕೆಲವು ಯಂತ್ರೋಪಕರಣಗಳಿಗೆ ಬಾಡಿಗೆ ದರ ನಿಗಧಿಪಡಿಸುವಂತೆ ಕೇಳಿಕೊಂಡರು ಅದೇ ರೀತಿ ಈ ಕೆಳಕಂಡಂತೆ ದರ ನಿಗಧಿಪಡಿಸಲಾಯಿತು.

2014–15ನೇ ಸಾಲಿನಲ್ಲಿ ಸ್ಥಾಪಿಸಲಾದ ಕೃಷಿ ಯಂತ್ರಧಾರೆ (ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾ ಕೇಂದ್ರ)ಗಳಡಿ ದಾಸ್ತಾನು ಮಾಡಲಾಗಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳಿಗೆ ನಿಗಧಿಪಡಿಸಲಾದ ಬಾಡಿಗೆ ದರದ ವಿವರಗಳು.

ಪಡಿಸಿದ ಬಾಡಿಗೆ ದರ	800/ Hour	1100/ Hour	500/ Hour	800/ Hour	300/ Day	600/ Day	400/ Day	500/ Day	500/ Day	600/ Day	500/ Day
B 20	0000	1500 110		800	300 30			000			200
	006	1400		770 8	300 3			490			084
9 3 33 3 13	100.00	200.00	100.00	100.001	20.00	100.00	50.00	20.00	50.00	50.00	20.00
	300.00	500.00		200.00	70.00	0	80.00	120.00	00.001	150.000	100.00
Driver(pe r Hour)	100.00	100.00	80.00	70.00	90.00	70.00	70.00	70.00	80.00	80.00	80.00
Diesel (per Hour)	400.00	00.009	250.00	400.00	120	400.00	200.00	250.00	250.00	300	250.00
DSC ಸಭೆಯಲ್ಲಿನ ವರ	0.00	0.00	400.00	700.007	250.00	Per Hole 18.00	35.00	450.00		1	1
್ಕಳಿಯ ಬಾಡಿಗೆ ದರ ದರ		-6	800/ Hour	1200/ Hour	800/Day	650/ Day	800/ Day	800/ Day	800-1200/ Day	800-1200/ Day	800-1000/ Day
ಕ್ರಸಂ ಯಂತ್ರೋಪಕರಣದ ಹೆಸರು	40.0	ಬಹು ಬಳಯು ಒಕ್ಕಣ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾದರಿ)	ಚಾಲಿತ ಬತ್ತನೆ	ಎಂ.ಬಿ.ನೇಗಲು	ರೋಟರಿ ವೀಡರ್	र्जातम् जुरुष्ण वितूर्	ಮಿನಿ 5 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್	ಮಿನಿ ಟ್ಯಾಕ್ಟರ್ 5 ರೋಟರಿ 16 ಪ್ಲೇಡ್	ಮಿನಿ ಟ್ಯಾಕ್ಟರ್ 5 ಕಲ್ಪಿವೇಟರ್	ಮಿನಿ ಟ್ರಾಕ್ಷರ್ ರೋಟರಿ ಜ್ಞೇಡ್	ಮಿನಿ ಟ್ರಾಕ್ಟರ್ 7 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್
र्भ भू	,		2.	3.	4.	5.	.9	7.	∞;	9.	10.

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	ಕಸಬ ಕೇಂದ್ರ	ದೊ	ಡ್ಡಬಳ್ಳಾಮರ ತಾಲ	<u>್ಲ</u> ೂಕು
	ಉಪಕರಣಗಳ ಹೆಸರು	ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ	ಉಪಕರಣದ ಮೌಲ್ಯ	ಉಪಕರಣಗಳ ಒಟ್ಟು ಮೌಲ್ಯ
	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656.
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	48523
3	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	1	336000	336000
4	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	127000
5	9 ಟೈನ್ ಸ್ಟ್ರಿಂಗ್ ಟೈಪ್ ಕಲ್ಲಿವೇಟರ್	1	35000	35000
6	3 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	1	31000	31000
7	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್	1	111000	111000
8	ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	1	114000	114000
9	<u>ಜ್ಲೇಡ್ ಹಾರೋ</u>	1	21000	21000
10	ಲೆವೆಲರ್ ಬ್ಲೇಡ್	1	22000	22000
11	2 ಬಾಟಮ್ ಎಂ.ಬಿ ಫ್ಲೋ	1	39900	39900
12	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್	1	75000	75000
13	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ	1	81000	81000
14	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟೆಂಗ್ಸ್	Iಸೆಟ್	78500	78500
15	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟೆಂಗ್ಸ್	1 ಸೆಟ್	53500	53500
16	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್	1	190000	190000
17	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)	1	550000	550000
18	ರೀಪರ್	1	110000	110000
19	ಕಂಬೈನ್ ಹಾರ್ವೆಸ್ಪರ್	1	1950000	1950000

- SILI	ಕೇಂದ್ರಾವಾರು ನಿರ್ವಹಿಸಬೇಕಾದ ಮಧುರೆ ಕೇಂದ್ರ	1	ಮೊಡ್ಡಬಳ್ಳಾಮರ ತಾಂ	್ಲೂಕು
ಕ್ರಸಂ	ಉಪಕರಣಗಳ ಹೆಸರು		ಉಪಕರಣದ ಮೌಲ್ಯ	ಉಪಕರಣಗಳ ಒಟ್ಟು ಮೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656.8
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	485235
3	ಪವರ್ ಟಿಲ್ಲರ್	2	154800	309600
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	2	336000	67200
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಸೀಡ್ಡ್ರಿಲ್	2	63500	12700
6	9 ಟೈನ್ ಸ್ಪಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್		35000	3500
7	5 ಟೈನ್ ಡಕ್ಪುಟ್ ಫ್ಲೋ		31000	31000
8	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್		111000	11100
9	ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	2	114000	22800
10	ಪವರ್ ವೀಡರ್	2	64000	12800
11	ಡಿಸ್ಕ್ ಹಾರೋ		56000	5600
12	ಲೆವೆಲರ್ ಬ್ಲೇಡ್		22000	2200
13	2 ಬಾಟಮ್ ಎಂ.ಬಿ ಫ್ಲೋ		39900	3990
14	ಡೀಸೆಲ್ ಇಂಜಿನ್ ಚಾಲಿತ ಸ್ಪೇಯರ್		42000	4200
15	ಪೆಟ್ರೋಲ್ ಇಂಜಿನ್ ಚಾಲಿತ ಸ್ಟೇಯರ್		39000	3900
16	ಪೋರ್ಟೆಬಲ್ ಸ್ಟ್ರೇಯರ್		9900	990
17	ಚಾಫ್ ಕಟ್ಟರ್ 2 ಹೆಚ್.ಪಿ		22950	2295
18	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್		75000	15000
19	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ		81000	16200
20	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18 ಇಂಚ್)		1 95000	9500
21	2ಬಾಟಮ್ ಎಂ.ಬಿ ಫ್ಲೋ ಮಿನಿ ಟ್ರ್ಯಾಕರ್		33000	3300
22	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ		1 26500	2650
23	ಮಲ್ಟಿಂಗ್ ಮಿಶನ್		82500	8250
24	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾ ಫಿಟ್ಟೆಂಗ್ಸ್	2ಸೆಟ್	78500	15700
25	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾ ಫಿಟ್ಟಿಂಗ್ಸ್	2ಸೆಟ್	53500	10700
26	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 2 ಬಾಟಮ್ ರಿವರ್ಸೇಬಲ್ ಎಂ.ಬಿ ಫ್ಲೋ		1 67500	6750
27	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬಂಡ್ ಫಾರ್ಮರ್)		2 54000	10800
28	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್		1 190000	19000
29	ಬಹುಬೆಳೆ ಒಕ್ಷಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)		1 550000	55000
30	ರೀಪರ್		2 110000	22000
	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ		2 2000	4000.0
31	ಬೂಮರ್		5 96000	9600

	ಸಾಸಲು ಕೇಂದ್ರ	ದೊಡಬಳ	್ಳಾಮರ ತಾಲ್ಲೂಕು	
ಕ್ರಸಂ	ಉಪಕರಣಗಳ ಹೆಸರು	ಉಪಕರಣಗಳ		ಉಪಕರಣಗಳ
5,~0		ಸಂಖ್ಯೆ	ಮೌಲ್ಯ	ಒಟ್ಟು ಮೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656.8
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	485235
3	ಪವರ್ ಟಲ್ಲರ್	2	154800	309600
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	2	336000	672000
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	127000
6	9 ಟೈನ್ ಸ್ಪ್ರಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್	2	35000	70000
7	5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	2	31000	62000
8	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್	2	111000	222000
9	ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	2	114000	228000
10	ಪವರ್ ವೀಡರ್	2	64000	128000
11	ಡಿಸ್ಕ್ ಹಾರೋ	1	56000	56000
12	ಪ್ಲೇಡ್ ಹಾರೋ	1	21000	2100
13	ಲೆವೆಲರ್ ಬ್ಲೇಡ್	1	22000	2200
14	2 ಬಾಟರ್ಮ್ ಎಂ.ಬಿ ಫ್ಲೋ	1	39900	3990
15	ಡೀಸೆಲ್ ಇಂಜಿನ್ ಚಾಲಿತ ಸ್ಟ್ರೇಯರ್	1	42000	4200
16	ಪೆಟ್ರೋಲ್ ಇಂಜಿನ್ ಚಾಲಿತ ಸ್ಟ್ರೇಯರ್	1	39000	3900
17	ಮೋರ್ಟೆಬಲ್ ಸ್ಟ್ರೇಯರ್	1	9900	990
18	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್	2	75000	15000
19	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ	1	81000	8100
20	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18 ಇಂಚ್)	1	95000	9500
21	2ಬಾಟಮ್ ಎಂ.ಬಿ ಫ್ಲೋ ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	33000	3300
22	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	2	26500	5300
23	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಫಿಂಗ್ಸ್	2ಸೆಟ್	78500	15700
24	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟಿಂಗ್ಸ್	2ಸೆಟ್	53500	10700
25	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್		99500	9950
26	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬನ್ಡ್ ಫಾರ್ಮರ್)		54000	5400
27	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 2 ಬಾಟಮ್ ರಿವರ್ಸಿಬಲ್ ಎಂ.ಬಿ ಫ್ಲೋ		67500	6750
28	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಷರ್ ಟ್ರೈಲರ್	2	190000	19000
29	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)		550000	55000
30	ರೀಪರ್	2		
31	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ	5	2000	10000.0

	ಕೇಂದ್ರಾವಾರು ನಿರ್ವಹಿಸಬೇಕಾ ಕುಂದಾಣ ಕೇಂದ್ರ		ದೇವನಹಳ್ಳಿ ತಾಲ್ಲೂ	ಕು
_	ಉಪಕರಣಗಳ ಹೆಸರು	ಉಪಕರಣಗಳ ಸಂಖೈ	ಉಪಕರಣದ ಮೌಲ್ಯ	ಉಪಕರಣಗಳ ಒಟ್ಟು ಮೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	2	591656.8	1183312.0
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	48523
3	ಪವರ್ ಟಿಲ್ಲರ್	2	154800	30960
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	2	336000	67200
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	12700
6	9 ಟೈನ್ ಸ್ಟ್ರಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್	1	35000	7000
7	5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಫ್ಲೋ	2	31000	6200
8	ರೊಟಾವೇಟರ್ 36 ಜ್ಞೇಡ್ಸ್	1	111000	100,000
9	ರೊಟಾವೇಟರ್ 42 ಜ್ಞೇಡ್	2	114000	22800
10	ಪವರ್ ವೀಡರ್	1	64000	6400
11	ಲೆವೆಲರ್ ಬ್ಲೇಡ್		22000	22000
12	2 ಬಾಟಮ್ ಎಂ.ಬಿ ಫ್ಲೋ	1	39900	39900
13	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್	2	75000	150000
14	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ	1	81000	81000
15	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18 ಇಂಚ್)	1	95000	95000
16	ಡಕ್ಕೂಟ್ ಫ್ಲೋ ಫಾರ್ ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	26500	26500
17	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಪ್ರಾಫಿಟ್ಟಂಗ್ಸ್	1 ಸೆಟ್	78500	78500
18	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಪ್ರಾಫಿಟ್ಟೆಂಗ್ಸ್	1 ಸೆಟ್	53500	53500
19	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬಂಡ್ಫ್ರಾರ್ಮರ್)	1	54000	54000
20	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 2 ಬಾಟಮ್ ರಿವರ್ಸೇಬಲ್ ಎಂ.ಬಿ ಫ್ಲೋ	1	67500	67500
21	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್	1	190000	190000
22	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)	1	550000	550000
23	ರೀಪರ್	1	110000	110000
24	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ	2	2000	4000
25	ಛಾಫರ್ (coconut frond chapper)	1	76500	76500
26	ಮಲ್ಟಿಂಗ್ ಮಿಷನ್	1	82500	82500
	Total			4993047.00

	ಕೇಂದ್ರಾವಾರು ನಿರ್ವಹಿಸಬೇಕಾ	ದ ಕೃಷಿ ಯಂತ್ರೂ	,ೀಪಕರಣಗಳ ಪಟ್ಟಿ	
	ಸೋಂಪುರ ಕೇಂದ್ರ	ನೆಲಮಂಗಲ	ತಾಲ್ಲೂಕು	
ಕ್ರಸಂ	8	ಉಪಕರಣಗಳ ಹೆಸರು	ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ	ಉಪಕರಣಗಳ ಒಟ್ಟು ಮೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656.
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	48523
3	ಪವರ್ ಟಿಲ್ಲರ್	2	154800	30960
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	2	336000	67200
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	12700
6	9 ಟೈನ್ ಸ್ಪ್ರಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್	2	35000	7000
7	5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	2	31000	6200
8	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್	2	111000	22200
9	ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	2	114000	22800
10	ಪವರ್ ವೀಡರ್	2	64000	12800
11	ಜ್ಞೇಡ್ ಹಾರೋ	1	21000	2100
12	ಲೆವೆಲರ್ ಬ್ಲೇಡ್	1	22000	2200
13	ಪೋರ್ಟೆಬಲ್ ಸ್ಟ್ರೇಯರ್	2	9900	19800
14	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್	2	75000	150000
15	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ	2	81000	162000
16	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18 ಇಂಚ್)	1	95000	95000
17	ಡಕ್ಫುಟ್ ಫ್ಲೋ ಫಾರ್ ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	2	26500	53000
18	ಮಲ್ಚಿಂಗ್ ಮಿಶನ್	1	82500	82500
19	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಪ್ರಾಫಿಟ್ನಿಂಗ್ಸ್	2ಸೆಟ್	78500	157000
20	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ನಿಂಗ್ಸ್	2 ಸೆಟ್	53500	107000
21	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬಂಡ್ ಫಾರ್ಮರ್)	2	54000	108000
22	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್	1	190000	190000
23	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)	1	550000	550000
24	ರೀಪರ್	2	110000	220000
25	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ	5	2000	10000.00
	TOTAL			4842791.8

	ಸೂಲಿಬೆಲೆ ಕೇಂದ್ರ		ಹೊಸಕೋಟೆ ತಾಲ್ಲೂಕು	
و بر	ಉಪಕರಣಗಳ ಹೆಸರು	ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ	ಉಪಕರಣದ ಮೌಲ್ಯ	ಒಟ್ಟು ಉಪಕರಣಗಳ ಮೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656
	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	4852
	ಪವರ್ ಟಿಲ್ಲರ್	2	154800	1002
	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 22 ಹೆಚ್.ಪಿ	2	336000	
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	12700
6	9 ಟೈನ್ ಸ್ಪಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್	2	35000	
7	5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	2	31000	7000
	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್	2	111000	0200
	್ಗೆ ಸ ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	2		22200
	ಬ್ರಷ್ ಕಟ್ಟರ್	-	114000	22800
	ಪವರ್ ವೀಡರ್	2	20000	4000
	ಪ್ರೇಡ್ ಹಾರೋ	3	64000	19200
	ಲೆವೆಲರ್ ಬ್ಲೇಡ್	1	21000	2100
		1	22000	2200
	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೊಟವೇಟರ್	2	75000	15000
15	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ	1	81000	8100
	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18ಇಂಚ್)	1	95000	9500
	ಡಕ್ಕೂಟ್ ಫ್ಲೋ ಫಾರ್ ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	2	26500	5300
9	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟಿಂಗ್ಸ್	2ಸೆಟ್	78500	15700
20	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟಿಂಗ್ಸ್	2 ಸೆಟ್	53500	10700
21	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬಂಡ್ ಫಾರ್ಮರ್)	3	54000	10800
2	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್	1	190000	19000
	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ(ತಮಿಳುನಾಡು ಮಾಡೆಲ್)		550000	
	ರೀಪರ್		AND	55000
	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ	2	110000	22000
6	ಸನ ನಾಜ ಮಾಡುವ ಯಂತ್ರ ಚಂದ್ರಂಕೆ	5	2000	10000.00
	ಬೂಮರ್	5	960	4800.00
	ಮಿನಿ ಟ್ರಾಕ್ಕರ್ ಆಪರೇಟೆಡ್ ಚಾಫ್ ಕಟರ್	1	96000	96000
0	ಮನ ಟ್ರಕ್ಟರ್ ಆಪರೀಟಡ್ ಚಾಫ್ ಕಟರ್ TOT/	1	90000	90000

	ಕೇಂದ್ರಾವಾರು ನಿರ್ವಹಿಸಬೇಕಾದ	9 3	್ಲ ೂಸಕೋಟೆ ತಾಲ್ಲೂಕ	ప
	ಕುಡಿ ಕೇಂದ್ರ	ಉಪಕರಣಗಳ	ಉಪಕರಣದ ಮೌಲ್ಯ	
ಕ್ರಸಂ	ಉಪಕರಣಗಳ ಹೆಸರು	ಸಂಖ್ಯೆ		ಪೌಲ್ಯ ಪೌಲ್ಯ
1	42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	591656.8	591656.
2	36 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	485235	48523
3	ಪವರ್ ಟಿಲ್ಲರ್	2	154800	30960
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ರರ್ 22 ಹೆಚ್.ಪಿ	2	336000	67200
5	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಜರ್ ಡ್ರಿಲ್	2	63500	12700
6	9 ಟೈನ್ ಸ್ಪ್ರಿಂಗ್ ಟೈಪ್ ಕಲ್ಪಿವೇಟರ್	2	35000	7000
7	5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಫ್ಲೋ	2	31000	6200
8	ರೊಟಾವೇಟರ್ 36 ಬ್ಲೇಡ್ಸ್	3	111000	33300
9	ರೊಟಾವೇಟರ್ 42 ಬ್ಲೇಡ್ಸ್	2	114000	22800
10	ಬ್ರಷ್ ಕಟ್ರರ್	2	20000	4000
11	ಪ್ರವರ್ ವೀಡರ್	-	64000	19200
12	್ಷೇಡ್ ಹಾರೋ	1	21000	2100
13	್ ಲೆವೆಲರ್ ಜ್ಲೇಡ್		22000	2200
14	ಪೋರ್ಟೆಬಲ್ ಸ್ನೇಯರ್		9900	1980
15	ಜಾಫ್ ಕಟರ್ 2 ಹೆಚ್.ಪಿ		1 22950	2295
16	ವಿನಿ ಟ್ರಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಟೂಡ್ ಫ್ಲೋ		2 26500	5300
17	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿವರ್ಸ್ ರೋಟರಿ		81000	8100
	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಗುಂಡಿಮಾಡುವ ಯಂತ್ರ (18 ಇಂಚ್)		1 95000	9500
18			1 82000	8200
19	ಮಲ್ಟಿಂಗ್ ಮಿಶನ್	3ಸೆಟ್	78500	7.00
20	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟಿಂಗ್ಸ್	2 ಸೆಟ್	53500	30000000
21	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ಎಕ್ಸ್ಟ್ರಾಫಿಟ್ಟಿಂಗ್ಸ್			Service
22	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರಿಡ್ಜರ್ (ಬಂಡ್ ಫಾರ್ಮರ್)		2 54000	
23	ದೊಡ್ಡ ಟ್ರ್ಯಾಕ್ಟರ್ ಟ್ರೈಲರ್		1 190000	
24	ಬಹುಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ (ತಮಿಳುನಾಡು ಮಾಡೆಲ್)		1 500000	57741104
25	ರೀಪರ್		3 110000	
26	ಸಸಿ ನಾಟಿ ಮಾಡುವ ಯಂತ್ರ		5 2000	10000.0

	ಕಸಬ, ದೊಡ್ಡಬಳ್ಳಾಮರ ತಾಲ್ಲೂಕು	81	ಮಧುರೆ ದೊಡ್ಡಬಳ್ಳಾಮರ ತಾಲ್ಲೂಕು		
0 11	್ಕಿ ಲಿ-೨,-೨ ರಾವ್ಯಾಜ್ಞನವ ಉಪಕರಣಗಳು	500	ೈ ಎ ಯ <i>್ರ್ಯಾನೆ ವಾಸ್ತಾನನ್ನೆ</i> ರುವ ಉಪಕರಣಗಳು		ಗಳ ಸಂಜ್
		. e,	्राच्छ १३ स्टार्ट्स ६३००० ^६		2
-	ಟ್ರಾಕ್ಟರ್ 42 ಹೆಚ್.ಬಿ	1	ವಿ.ಎಸ್.ಟ ಪವರ್ ಟೆಲ್ಲರ್		
2	ಮಿನಿ ಟಾಕರ್	2	ಟ್ರ್ಯಾಕ್ಟರ್ 39 ಹೆಚ್.ಪಿ		,
1		-	ಟ್ರಾಕರ್ 42 ಹೆಚ್.ಪಿ		-
· ·	S SIN SCHOOL SELECTION		ಮಿನ ಟ್ಯಾಕರ್		2
4	2 ಜಿ.ಬ. ಅವ್ಯೂಜ. ಎಂ.ಬ.ಬಂ		O SEE ANTONE HO HOLE	- 1	_
O	36 ಜ್ಞೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 39 ಹಚ್.ಪಿ ಟ್ಯಾಕ್ಟರ್)	-	9 Egyp Tolor(shor and ranger		
6	42 ಜ್ಞೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ ಟ್ರಾಕ್ಟರ್)	_	5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಕಲ್ಪವೇಟರ್		-
7	ಮಿನಿ ಟ್ರಾಕ್ಟರ್ ರೋಟರಿ	-	36 ಜ್ಞೇಡ್ಸ್ ರೂಟಾವೇಟರ್ (ಫಾರ್ 39 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್)		-
00	ಮನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಫ್ಲೋ	-	42 ಫ್ರೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ ಟ್ರಾಕ್ಟರ್)		1
	THE RESERVE THE BUT	2	ಮಿನಿ ಟ್ರಾಕ್ಟರ್ ರೋಟವೇಟರ್	- 1	-
9	Willey am, of one Ame and		ಮಿನಿ ಟ್ಯಾಕ್ಸರ್ 5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಘ್ಲೋ	40	_
10	0		Cha		

	ಸೋಂಡುದ, ನೆಲದುಂಗಲ ತಾಲ್ಲೂಕು		ಕುಂದಾಣ, ದೇವನಹಳ್ಳಿ	ಕುಂದಾಣ, ದೇವನಹಳ್ಳಿ ತಾಲ್ಲೂಕು	
2t 0		ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ	건 (gt. 0 원 만,	ಕೃಷಿ ಯಂತ್ರಧಾರೆ ದಾಸ್ತಾನಿನಲ್ಲಿರುವ ಉಪಕರಣಗಳು	ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ
-	ಖ.ಎಸ್.ಟಿ ಪವರ್ ಜಿಲ್ಲರ್	2	_	ವಿ.ಎಸ್.ಟಿ ಪವರ್ ಟಿಲ್ಲರ್	2
2	ಟ್ರಾಕ್ಡರ್ 39 ಹೆಚ್.ಪಿ		2	ట్ర్యాక్టర్లో 39 చోహా.మి	-
ω	ಟ್ರಾಕರ್ 42 ಹೆಚ್.ಪಿ	-	w	ಟ್ರ್ಯಾಕ್ಟರ್ 42 ಹೆಚ್.ಪಿ	_
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	2	4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಷರ್	2
5	9 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್ ಹೆವಿ ಡ್ಯೂಟಿ	-	S	9 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್ ಹವಿ ಡ್ಯೂಟಿ	1
0	5 ಟೈನ್ ಡಕ್ಟೂಟ್ ಕಲ್ಪಿವೇಟರ್	-	6	5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಕಲ್ಪಿವೇಟರ್	1
7	36 ಪ್ಲೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 39 ಹೆಚ್.ಪಿ	-	7	36 ಜ್ಞೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 39 ಹೆಚ್.ಪಿ	
œ	42 ಜ್ಞೇಡ್ಲ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ	-	00	42 ಜ್ಞೇಡ್ಸ್ ರೂಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ	1
9	ಮಿನಿ ಟ್ರಾಕ್ಟರ್ ರೋಟರಿ	-	9	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೋಟರಿ	1
10	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಫ್ಲೋ	_	10	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಘ್ಲೋ	1
Ξ	ಸೀಡ್ ಕಮ್ ಫರ್ಟಲೈಸರ್ ಡ್ರಿಲ್	2	=	ಸೀಡ್ ಕಮ್ ಫರ್ಟಿಲೈಸರ್ ಡ್ರಿಲ್	2

	ನಂದಗುಡಿ ಹೊಸಕೋಟೆ ತಾಲ್ಲೂಕು	7		ಸೂಲಭಲ, ಹೊಸಕೋಜ ತಾಲ್ಲೂಕು
(at 24 0	ಕೃಷಿ ಯಂತ್ರಧಾರೆ ದಾಸ್ತಾನಿನಲ್ಲಿರುವ ಉಪಕರಣಗಳು	ಗಳ ಸಂಖ್ಯೆ.	(તા ટ્રેન O	હૃત દુઃ
_	ವಿ.ಎಸ್.ಟಿ ಪವರ್ ಟಿಲ್ಲರ್	2	-	ವಿ.ಎಸ್.ಟಿ ಪವರ್ ಟಿಲ್ಲರ್
2	ಟ್ರಾಕ್ಟರ್ 39 ಹೆಚ್.ಪಿ		2	ಟ್ರ್ಯಾಕ್ಟರ್ 39 ಹೆಚ್.ಪಿ
w	ಟ್ರ್ಯಾಕ್ಟರ್ 42 ಹೆಚ್.ಪಿ	_	Ç,	ಟ್ರ್ಯಾಕ್ಟರ್ 42
4	ಮನಿ ಟ್ರ್ಯಾಕ್ಟರ್	2	4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್
S	9 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್ ಹೆವಿ ಡ್ಯೂಟ	-	Ut	9 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್ ಹೆವಿ ಡ್ಯೂಟಿ
6	5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಕಲ್ಪಿವೇಟರ್	-	6	5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಕಲ್ಪಿವೇಟರ್
7	36 ಜ್ಲೇಡ್ಸ್ ರೂಟಾವೇಟರ್ (ಫಾರ್ 39 ಹೆಚ್.ಪಿ	-	7	36 ಜ್ಲೇಡ್ಸ್ ರೂಟಾವೇಟರ್
∞	42 ಜ್ಞೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್)	-	∞	42 ಫ್ಲೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42
9	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೋಟರಿ	_	9	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೋಟರಿ
10	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಕೂಟ್ ಫ್ಲೋ	-	10	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಫೂಟ್
=	ಸೀಡ್ ಕಮ್ ಪರ್ಟಲಿಸರ್ ಡಿಲ್	2	=	ಸೀಡ್ ಕಮ್ ಫರ್ಟಲ್ಪಸರ್ ಡ್ರಿಲ್

	ಕೇಂದ್ರದಲ್ಲಿ ದಾಸ್ತಾನು ಮಾಡಲಾದ ಕೃಷಿ ಉಪಕರಣಗಳು	ಮಾರುಕಟ್ಟೆಯಲ್ಲಿರುವ ಬಾಡಿಗೆ ದರ (ರೂಗಳಲ್ಲಿ)	ಇಲಾಖೆಯು ನಿಗಧಿಪಡಿಸಿರುವ ಬಾಡಿಗೆ ದರ (ರೂ.ಗಳಲ್ಲಿ)
ಕ್ರಸಂ	ವಿ.ಎಸ್.ಟಿ ಪವರ್ ಟಿಲ್ಲರ್	400/Hour	250/ Hour
1	ಟ್ರ್ಯಾಕ್ಟರ್ 39 ಹೆಚ್.ಪಿ	1500-1700/Day	1400/Day
3	ಟ್ರ್ಯಾಕ್ಟರ್ 42 ಹೆಚ್.ಪಿ	1600-1800/ Day	1500/Day
4	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್	1300/Day	900/Day
5	9 ಟೈನ್ ಕಲ್ಪಿವೇಟರ್ ಹೆವಿ ಡ್ಯೂಟಿ	800/Hour	600/Hour
6	5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಕಲ್ಪಿವೇಟರ್	800/Hour	600/Hour
7	36 ಜ್ಲೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 39 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್)	1000/Hour	700/Hour
8	42 ಬ್ಲೇಡ್ಸ್ ರೊಟಾವೇಟರ್ (ಫಾರ್ 42 ಹೆಚ್.ಪಿ ಟ್ರ್ಯಾಕ್ಟರ್)	1200-400/Hour	800/Hour
9	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ ರೋಟರಿ	500/Hour	350/Hour
10	ಮಿನಿ ಟ್ರ್ಯಾಕ್ಟರ್ 5 ಟೈನ್ ಡಕ್ಫೂಟ್ ಫ್ಲೋ	500/Hour	350/Hour
11	ಸೀಡ್ ಕಮ್ ಫರ್ಟಲೈಸರ್ ಡ್ರಿಲ್	600/Hour	400/Hour

ಕೇಂದ್ರಗಳಲ್ಲಿ ಇನ್ನೂ ಏನಾದರೂ ಸಮಸ್ಯೆ ಇದ್ದರೆ ಚರ್ಚಿಸುವಂತೆ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಸೂಚಿಸಿದರು. ಅದರಂತೆ ಶ್ರೀ ಕ್ಷೇತ್ರ ಧರ್ಮಸ್ಥಳ ಸಂಸ್ಥೆಯವರು ಕಳೆದ ಸಾಲಿನಲ್ಲಿ ಭರಿಸಿದ ಮೊತಕ್ಕೆ ದೊಡ್ಡಬಳ್ಳಾಮರದಿಂದ ಸಹಾಯಧನ ಮೂರ್ತಿಯಾಗಿ ಸಿಗಲಿಲ್ಲ ಎಂದು ತಿಳಿಸಿದರು. ಇದಕ್ಕೆ ಪ್ರತಿಯಾಗಿ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರು ದೊಡ್ಡಬಳ್ಳಾಮರ ಇವರು ಕೊನೇ ಘಳಿಗೆಯಲ್ಲಿ ಬಿಲ್ಲು ಸಲ್ಲಿಸುವುದರಿಂದ ಬಿಲ್ ಪಾಸಾಗಲಿಲ್ಲ ಎಂದು ಉತ್ತರಿಸಿದರು. ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಕಳೆದ ಸಾರಿ ಅಂದರೆ 29–09–2015 ರಂದು ಜಿಲ್ಲಾ ಸಮಿತಿಯಲ್ಲಿ ಚರ್ಚಿಸಿದಂತೆ ಅನುಪಯುಕ್ತ ಯಂತ್ರಗಳನ್ನು ಕೇಂದ್ರದಿಂದ ಕೇಂದ್ರಕ್ಕೆ ಅಥವಾ ಸಂಬಂಧಿಸಿದ ಸರಬರಾಜು ಕಂಪನಿಯಿಂದ ಬದಲಾವಣೆ ಪಡೆಯುವಂತೆ ಆದೇಶ ನೀಡಿದ್ದರೂ ಇದುವರೆಗೂ ಕ್ರಮವಹಿಸಿರುವುದಿಲ್ಲ, ಈ ಪ್ರಕ್ರಿಯೆಯಿಂದ ಒಂದು ವೇಳೆ ಹೆಚ್ಚಿನ ಮೊತ್ತ ಕಂಪನಿಗೆ ಪಾವತಿಸುವಂತಿದ್ದರೆ ಕೇಂದ್ರಗಳ ಆದಾಯದಿಂದ ಪಾವತಿಸುವಂತೆ ಸೂಚಿಸಿದರು ಮತ್ತು ಯಾವುದೇ ಉಪಕರಣಗಳು ಅನುಪಯುಕ್ತವಾಗಿ ಇರಬಾರದು, ಮತ್ತು ಯಾವುದೇ ರಿಪೇರಿ/ದುರಸ್ಥಿಯಾಗಲಿ ನಿಮ್ಮ ಕೇಂದ್ರದ ಆದಾಯದಿಂದ ಭರಿಸುವುದು ಎಂದು ಸೂಚಿಸಿದರು.

ಇದಕ್ಕೆ ಪ್ರತಿಕ್ರಿಯಿಸಿದ ಸಂಸ್ತೆಯವರು ಉಪಕರಣಗಳ ಬದಲಾವಣೆಗೆ ಸಂಸ್ಥೆಯ ಕೇಂದ್ರ ಕಛೇರಿಗೆ ಅನುಮತಿ ಕೇಳಲಾಗಿದ್ದು ಅನುಮತಿ ಬಂದ ನಂತರ ಕ್ರಮವಹಿಸುವುದಾಗಿ ತಿಳಿಸಿದರು, ಇದನ್ನು ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ಮತ್ತು ಮುಖ್ಯ ಕಾರ್ಯ ನಿರ್ವಾಹಣಾಧಿಕಾರಿಗಳು ಇಬ್ಬರೂ ಆಕ್ಷೇಪಿಸುತ್ತಾ ಸಂಸ್ಥೆಯ ಕೇಂದ್ರ ಕಛೇರಿಯಿಂದ ಅನುಮತಿ ಪಡೆಯುವ ಅವಶ್ಯಕತೆಯೇ ಇರುವುದಿಲ್ಲ. ಈಗ ನಾವು ನೀಡಿರುವ ಆದೇಶವೇ ಅಂತಿಮವಾಗಿದ್ದು, ಕ್ರಮ ವಹಿಸುವಂತೆ ಸೂಚಿಸಿದರು.

ದಿನಾಂಕ:09-06-2016ರ ಸಭೆಯಲ್ಲಿ ತಿಳಿಸಿದಂತೆ ಪ್ರತಿ ಹೋಬಳಿಯಲ್ಲಿ 500.00 ಹೆ. ಪ್ರದೇಶದಲ್ಲಿ ಸಂಯುಕ್ತ ಬಿತ್ತನೆ ಕೂರಿಗೆಯ ಮೂಲಕ ಪ್ರಾತ್ಯಕ್ಷಿಕೆಯನ್ನು ಕೈಗೊಳ್ಳುವಂತೆ ಸೂಚಿಸಲಾಗಿತ್ತು. ಇದರ ಪ್ರಗತಿಯನ್ನು ನೀಡುವಂತೆ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಕೇಳಿದರು ಇದುವರೆಗೆ 113 ಎಕರೆ ಪ್ರದೇಶದಲ್ಲಿ ಬಿತ್ತನೆ ಮಾಡಲಾಗಿದೆ. ಉಳಿದ ಪ್ರದೇಶವನ್ನು ಇನ್ನು 2 ವಾರಗಳಲ್ಲಿ ಹೂರ್ಣಗೊಳಿಸುತ್ತೇವೆಂದು ಸಂಸ್ಥೆಯವರು ತಿಳಿಸಿದರು. ಪ್ರತಿ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರದಲ್ಲಿ ಇಬ್ಬರು ಕೃಷಿ ಮೇಲ್ವಿಚಾರರಿದ್ದು ಸದರಿಯವರಿಗೆ ತಲಾ 250 ಹೆ. ನಂತೆ ರಾಗಿ ಬೀಜ ಮತ್ತು ರಸಗೊಬ್ಬರ ಕೂರಿಗೆ ಬಳಸಿ ಬಿತ್ತನೆ ಮಾಡಲು ಗುರಿ ನಿಗಧಿ ಪಡಿಸಿದ ಪ್ರಗತಿ ಸಾಧಿಸಲು ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಹಣಾ ಅಧಿಕಾರಿಗಳು ಸೂಚಿಸಿದರು.

ಇದನ್ನು ಒಪ್ಪದ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ನಿಮ್ಮ ಕೇಂದ್ರಗಳಲ್ಲಿ 2 ತರದ ಬಿತ್ತನೆ ಕೂರಿಗೆ ಇದ್ದು. (ಸ್ಪ್ರಿಂಗ್ ಇರುವ ಮತ್ತು ಸ್ಪ್ರಿಂಗ್ ಇಲ್ಲದಿರುವ) ಸ್ಪ್ರಿಂಗ್ ಇಲ್ಲದಿರುವ ಕೂರಿಗೆಯಲ್ಲಿ ತೇವ ಜಾಸ್ತಿ ಇದ್ದರೆ, ಮಣ್ಣು ಮೆತ್ತಿಕೊಂಡು (Gap) ಅಂತರ ಹೆಚ್ಚಾಗುವುದು, ಅಲ್ಲದೆ ನೀವು ದಾಸ್ತಾನಿಸಿರುವ ಕೂರಿಕೆಗಳಲ್ಲಿ ಸ್ವಲ್ಪ ತೊಂದರೆ ಇರುವುದರಿಂದ ರೊಟೋವೇಟರ್ ಬಳಸಿದ ನಂತರ ಕೂರಿಗೆಗಳಲ್ಲಿ ಬಿತ್ತುವುದರಿಂದ ಉತ್ತಮವಾಗಿ ಬಿತ್ತನೆಯಾಗುತ್ತದೆ ಎಂದು ತಿಳಿಸಿದರು, ಚಾಲಕರು ಕೌಶಲ್ಯತೆ ಆಧಾರದ ಮೇಲೆ ಸಮಸ್ಥಿತಿ ಕಾಪಾಡಬಹುದು, ಮತ್ತು ಬದುಗಳು ಅಚ್ಚುಕಟ್ಟಾಗಿರಬೇಕು ಜೊತೆಗೆ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಗಳು ಇದರಿಂದ ತೊಂದರೆಗಳೇನಾದರೂ ಇದ್ದಲ್ಲಿ ಆಗಿಂದಾಗ್ಗೆ ಮಾಹಿತಿ ನೀಡುವಂತೆ ತಿಳಿಸಿದರು. ಇದಕ್ಕೆ ಪ್ರತಿಕ್ರಿಯಿಸಿದ ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು, ನಾನು ಇದರ ಬಗ್ಗೆ ಸಭೆಯನ್ನು ಏರ್ಪಡಿಸಿದ್ದು ಅಲ್ಲದೆ ಸಂಸ್ಥೆಯ ಚಾಲಕರ ಸಮೇತ ಖಾಸಗೀ ಚಾಲಕರ ಸಮುಖದಲ್ಲಿ ತರಬೇತಿಯನ್ನು ನೀಡಲಾಗಿದೆ ಹಾಗೂ ಸಂಯುಕ್ತ ಬಿತ್ತನೆ ಕೂರಿಗೆ ಬಳಸಲು ಮೊದಲ ಆದ್ಯತೆ ನೀಡಬೇಕೆಂದು ಸಹ ಸೂಚನೆ ನೀಡಿರುತ್ತೇನೆ ಎಂದು ತಿಳಿಸಿದರು.

5. ಕೃಷಿಗೆ ಸಂಬಂಧಿಸಿದ ಇತರೇ ಇಲಾಖೆಗಳಿಗೆ ಬೇಡಿಕೆ ಇರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳ ಬಗ್ಗೆ ತೋಟಗಾರಿಕೆ, ರೇಷ್ಮೇ ಮತ್ತು ಪಶುಸಂಗೋಪನೆ ಇಲಾಖೆಗೆ ಸಂಬಂಧಿಸಿ

ಮಲ್ಲಿಂಗ್ ಮಷ್ಟಿನ್, ತರಕಾರಿ ಬೆಳೆಗಳಿಗೆ ಗುಂಡಿಯಲ್ಲಿ ಸಸಿನಾಟಿ ಮಾಡುವ ಮಷ್ಟಿನ್ ಸೂಚಿಸಿದಲ್ಲಿ ತರಿಸುವ ವ್ಯವಸ್ಥೆ ಮಾಡಲಾಗುವುದೆಂದು ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರು ತಿಳಿಸಿದರು, ಇದಕ್ಕೆ ಸ್ಪಂದಿಸಿದ ತೋಟಗಾರಿಕೆ ಇಲಾಖೆ ಅಧಿಕಾರಿಗಳು, ಬೂಮರ್ನ್ನು ಕಸಬ, ದೊಡ್ಡಬಳ್ಳಾಮರ ಇಲ್ಲಿ ತರಿಸಿದಲ್ಲಿ ಉಪಯುಕ್ತವಾಗುವುದೆಂದು ತಿಳಿಸಿದರು, ಟ್ರಾಕ್ಟರ್ ಚಾಲಿತ Chaff cutter ಮತ್ತು ಮಲ್ಲಿಂಗ್ ಮಷಿನ್ (ಮಾನವ ಚಾಲಿತ ಮತ್ತು ಟ್ರಾಕ್ಟರ್ ಚಾಲಿತ) 2-3ನ್ನು ತರಿಸಲು ಸೂಚಿಸಿದರು ಇದಕ್ಕೆ ಸಮ್ಮತಿಯನ್ನು ಸೂಚಿಸಿ ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಣಾ ಅಧಿಕಾರಿಯವರು ಇದನ್ನು ತರಿಸಿದರೆ ಉತ್ತಮ ಎಂದು ಹೇಳಿದರು ಮತ್ತು ಜಂಟಿ ಕೃಷಿ ನಿರ್ದೇಶಕರವರು ಸಹ ಒಪ್ಪಿದರು.

ಹಾಗೆಯೇ ರೇಷ್ಮೇ ಇಲಾಖೆಯವರು ಪ್ಲಾಸ್ಟಿಕ್ ಚಂದ್ರಿಕೆ ತರಿಸಲು ಸುಚಿಸುತ್ತಾ ಇಲಾಖೆಯ ದರ ಪಟ್ಟಿಯನ್ನು ನೀಡಿದರು (ನಂದಗುಡಿ, ಸೂಲಿಬೆಲೆ,ಚನ್ನರಾಯಪಟ್ಟಣಾ) ಪಶುಸಂಗೋಪನೆ, ಇಲಾಖೆಯಲ್ಲಿ ಈಗಾಗಲೇ Milking Machine, Chaff cutter KMF ಕಡೆಯಿಂದ ದೊರೆಯುತ್ತಿದ್ದು, ಮತ್ತು ಇಲಾಖೆ ಮೂಲಕ ಕೂಡ ಸಹಾಯಧನದಲ್ಲಿ ದೊರೆಯುತ್ತಿರುವುದರಿಂದ ಸದ್ಯಕ್ಕೆ ಬೇಡ ಎಂದು ತಿಳಿಸಿದರು.

ಕೊನೆಯಲ್ಲಿ ವಂದನಾರ್ಪಣೆಯೊಂದಿಗೆ ಸಭೆಯನ್ನು ಮುಕ್ತಾಯಗೊಳಿಸಲಾಯಿತು.

ಜಂಟಿ ಕೃಷಿನಿರ್ದೇಶಕರು ಹಾಗೂ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಅನುಷ್ಟಾನ ಸಮಿತಿ ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಜಿಲ್ಲೆ.

ಅಧ್ಯಕ್ಷರು ಮುಖ್ಯ ಕಾರ್ಯ ನಿರ್ವಹಣಾಧಿಕಾರಿಗಳು ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಅನುಷ್ಟಾನ ಸಮಿತಿ ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಜಿಲ್ಲೆ.

ANNEXURE VI: Terms of Reference for Evaluation of Krishi Yantra Dhare (Farm Machinery Custom Hire Service Centres) Scheme

INDEX

Sl.No.	Content
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TERMS OF REFERENCE FOR EVALUATION OF KRISHI YANTRA DHARE (FARM MACHINERY CUSTOM HIRE SERVICE CENTRES) SCHEME

1. Study Title: Title of proposed study is "Evaluation of Krishi Yantra Dhare (Farm Machinery Custom Hire Service Centres) Scheme in Karnataka State".

2. Department Implementing the Scheme:

Department of Agriculture

The programme is implemented through Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956)/Organisations /Non-Government Organisations (NGO)/Registered Farmers Producers Organisations (FPOs) / Farm machineries Manufacturer/Individuals who are currently running Custom Hire Service Centers as franchisees provided they are registered as individual proprietor/s Firm (referred as Service providers) on a PPP model.

3. Background and the context:

Indian agriculture is undergoing a gradual shift from dependence on human power and animal power to mechanical power because increasing cost for upkeep of animal and growing scarcity of human labour. Further, use of mechanical power has a direct bearing on the productivity of crops apart from reducing the drudgery and facilitating timeliness of agricultural operations. Thus there is a strong need for taking farm mechanization. Mechanization brings in timeliness and precision to agricultural operations, greater field coverage over a short period, cost effectiveness, efficiency in use of resources and applied inputs, conservation of available soil moisture under stress conditions and provision of adequate drainage of excess rain and floodwaters. The increasing labour costs during the peak agricultural period has led to increase in the cost of cultivation of small and marginal farmers. The major constraint in mechanization is that small and marginal farmers cannot afford to purchase costly machinery and equipment. Even maintaining a pair of bullocks too has become an expensive proposition. Since the agricultural operations are time bound, Mechanization of farm activities is the need of hour to increase production and productivity. Though subsidy is being provided for farm machinery, due to prohibitive cost of farm machinery all farmers may not come forward to own them. In this context, establishment of Krishi Yantra Dhare programme is a boon to farmers. Krishi Yantra Dhare enables to overcome these constraints as they provide services of machinery on hire basis to farmers in

right time. Hence, establishment of Custom Hire and Service Centre (CHSC) is a boon for farmers. Krishi Yantra Dhare enables to overcome these constraints as they provide services of machinery on hire basis to farmers in right time. By keeping this in view, Krishi Yantra Dhare programme is being implemented from 2014-15 at hobli level with an objective of covering of all the hoblies in a phased manner. During, 20T4-15 & 2015-16, 175 centres and during 2016-17,139 centres have been established. Totally 314 centres has been operational as on date. These centres have been established in the State through functional Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956)/Organisations/Non-Government organisations (NGO) Registered Farmers Producers Organizations (FPOs)/Farm machineries Manufacturers/Individuals who are currently running Custom Hire Service Centers as franchisees provided they are registered as individual proprietor/s Firm on a PPP model.

Objectives of the scheme/Programme:

- 1. To address the constraints in land preparation activities by providing efficient land preparation Farm machinery and equipment on Custom Hire Service basis.
- 2. To reduce sowing/transplanting window leading to consequent reduction in harvesting window.
- 3. To ensure effective inter cultivation and other cultural operations.
- 4. To ensure effective harvesting with reduced harvest window leads to minimization of harvesting losses.
- 5. To encourage in-situ moisture conservation and to harness the residual moisture of kharif season for Rabi Pulses and Oilseeds.
- 6. To enhance the production and productivity of the crops.
- 7. To provide services of Hi Tech Farm Machinery services to small farmers and marginal
- 8. To run the centres throughout the year effectively, efficiently and profitably.

Contents/Unit Costs/ Quantum of the benefit etc.,

<u>Custom Hire Service Centres (CHSC) in Two Slabs:</u> Based on the Agricultural density the Custom Hire Centers are categorized into 2 slabs, that is Slab-1 and Slab-2. The establishment period is spread over for two years and the year wise activity is specified.

<u>Slab-1. Rs.75.00 lakhs</u>: Farm Machineries of Rs.75.00lakhs worth are proposed to be deployed in each center. The Department of Agriculture proposes to establish 181 CHSCs during the year 2017-18 under Slab-1.

<u>Slab-2. Rs.40.00 lakhs</u>: Farm Machineries of Rs.40.00lakhs worth are proposed to be deployed in each center. In Malnad region (Dakshina Kannada, Udupi, Uttara Kannada, Kodagu, Shimoga and Chikmagalur-6 Districts) and in the areas where mono cropping system is common (Kolar and Chikballapur-2 Districts), wherein, Rs.75.00 lakhs worth implements may not be required. In these Districts under Slab-2 the Department of Agriculture proposes to establish 69 CHSCs during the year 2017-18.

• Government assistance (Back ended) for each centre)revised for 2017-18): Of the specified total worth of the Farm Machineries, over for two years period, under Slab-1(Rs.75.00lakhs) & Slab-2(Rs.40.00lakhs) the Government contribution will be limited to an extent of 70o/o and the remaining 30% contribution will be from the Service Providers. Financial Assistance pattern spread over 2 years period is more specifically given below'

Table-I Financial Assistance Pattern (Rs. in Lakhs)

Slabs	Total amount per centre	GOK share	Service provider share	Ratio (%)	Remarks
Slab - I	75.00	52.50	22.50	70:30	Spread over
Slab-II	40.00	28.00	12.00	70:30	for 2 years

Year wise particulars are as follows:

(Rs. in Lakhs)

Year	Govt. Share	Service provider share	Total			
	Slab-I (Rs	s.75.00 lakhs)				
I (2017-18)	41.25	11.25	52.50			
II (2018-19)	11.25	11.25	22.50			
Total	52.50 (70%)	22.50 (30%)	75.00			
	Slab-II (Rs.40.00 lakhs)					
I (2017-18)	22.00	6.00	28.00			
II (2018-19)	6.00	6.00	12.00			
Total	28.00 (70%)	12.00 (30%)	40.00			

- It is proposed to provide Rs.1.50 lakhs per centre as initial establishment grant (for Administrative/Office expenses) by the Department.
- For ongoing centres assistance will be given to purchase new or replacement of machinery. For the centres with more than Rs.10 lakh annual turnover Rs.5.00 lakh, for less than Rs.10.00 lakh annual turnover Rs.2.50 lakh per year will be given. This assistance will be given on the basis of 50o/o Government assistance and remaining 50% borne by the Service provider. This assistance will be extended up to 3 years from the initial establishment.

For the years 2014-15,2015-16 & 2016-17 the Government assistance was as follows:

Table-2 Financial assistance (2014-15, 2015-16 & 2016-17)

(Rs. in Lakh)

Year	Govt. Share	Service provider share	Total
First year	37.50 (75%)	12.50 (25%)	50.00
Second year	12.50 (50%)	12.50(50%)	25.00
Total	50	25.00	75.00

Institutional Arrangements made for Implementation: Krishi Yantra Dhare (Custom Hire Service Centres) programme was initiated during the year 2014-15, in order to make timely availability of Farm Machinery for agricultural and post harvest operations on nominal rental basis. Krishi Yantra Dhare centres in the State is established through functional Charitable Trusts, Companies (Registered under Section 25 of Companies Act, 1956)/Organisations/Non Government Organisations (NGO)/Registered Farmers Producers Organisations (FPOs)/Farm machineries Manufacturers/Individuals who are currently running Custom Hire Service Centers as franchisees provided they are registered as individual proprietor/s Firm is established in phased manner on a PPP model.

Hobli level survey is conducted by the Service provider within the proposed jurisdiction of each of the CHSCs. The selection of implements is based on farmers' need and prevailing cropping system. District Implements Committee headed by Chief Executive Officer, Zilla Panchyath will finalize the implements and also fix the nominal hiring charges for equipment shelved in the CHSC Centres.

Table-3 District Level Committee

1.	Chief Executive Officer, Zilla Panchayat	Chairman
2.	District Joint Director of Agriculture	Vice Chairman
3.	President of District Krishik Samaj	Member
4.	Assistant Director of Agriculture (SMS)	Member Secretary and
		District Nodal Officer
5.	ADAs of all Taluks	Member
6.	Two Progressive Farmers/Krishi Prashasthi	Member
	Awardee.	
7.	Leading Farm Machinery Manufacturer in the	Member
	District	
8.	Representative of Krishi Yantra Dhare service	Member
	provider	
9.	Representative of University of Agricultural	Member
	Sciences	

Monitoring Arrangements: After getting approval from District level Committee for number and type/models of equipment and their hiring charges which are shelved in the Krishi Yantra Dhare Centres by the Service Provider, requisite verification/monitoring will be done by the Department officials for the equipment shelved in the Krishi Yantra Dhare Centres.

Further, Service Provider should submit the Annual Utilization Certificate for all the financial transactions of the CHSC through Department officers and Service Provider should submit Audited statement every year to Assistant Director of Agriculture, Deputy Director of Agriculture, Joint Director of Agriculture of the districts and office of Commissioner of Agriculture at state level.

4. Evaluation -Scope, purpose and objectives

The study covers all the 335 centres operating in the State. The study covers the services provided and utilised under the Krishi Yantra Dhare Scheme implemented during 2014-15, 2015-16 & 2016-17 in the entire state of Karnataka by all the Service providers. The purpose of evaluation of the scheme is to bring out the extent of spread and utilisation of the scheme, quality standard of services provided and of the equipment shelved in the CHSC centres and customer satisfaction with the services and to find out the impact on production and productivity of farmers under different cropping systems.

5. Objectives of Evaluation:

To assess the awareness about the scheme among the small and marginal farmers. o To study the effect of Krishi Yantra Dhare (CHSC) scheme on the Agriculture on the production and productivity of the crops in Karnataka state.

- . To study the extent to which the scheme objectives are achieved.
- To study the effectiveness of services of Hi Tech Farm Machinery services provided to small and marginal farmers and others by different service providers.
- To examine the reach of services to different categories of farmers across the districts/divisions.
- To assess the cost reduction in different farm operations and to analyse the economics of farming due to implementation of this scheme based on practical experiences of farmers through estimation of cost benefit ratio across the cropping systems in different regions. o To study whether the constraints in land preparation, inter cultivation and all the other agricultural activities by providing efficient and Hi-Tech Farm machinery and equipment on Custom Hire Service basis are addressed.
- . To examine the extent of extension support provided by the Service Providers to the farmers, and customer satisfaction with quality of support service and equipment.
- To document the best practices in operation of these centres.
- To make the demand analysis of Farm Machinery and other Hi-Tech equipment on Custom Hire basis through implementation of Krishi Yantra Dhare Programme.
- To suggest measures for making the scheme/Programme for more effective and beneficial to all the farmers at right time.

6. Evaluation Questions (Inclusive not exhaustive):

Beneficiary

- 1. What is the level of awareness about the scheme across the categories of farmers and across the divisions/districts in the State? Review the efforts of Government and Service providers in this direction.
- 2. What is the effective coverage of Krishi Yantra Dhare (CHSC) in Karnataka State? Examine the geographical spread of these Centres and their implications. What is the contribution of service providers to this coverage?

- 3. Study whether the constraints in land preparation, inter cultivation and all the other agricultural activities by providing efficient and Hi-Tech Farm machinery and equipment on Custom Hire Service basis are addressed.
- 4. What is the demand pattern for Krishi Yantra Dhare (CHSC) in different districts, whether the pattern varies across the crop zones? Examine the reasons for variations in it
- 5. Are the prescribed quality standards of farm machinery shelved in Krishi Yantra Dhare (CHSC) centres well maintained? Make a check list according to the one given in the annexure and assess the farm equipment available across the centres. Note the gaps and excess supplies.
- 6. Examine the impact of Krishi Yantra Dhare (CHSC) scheme on the Agriculture in terms of production and productivity of the crops in Karnataka state' Bring out any changes in cropping patterns among the sample farmers' Assess it across regions, social groups' gender and Slab-I & Slab-II Centres.
- 7. It is observed that small and marginal farmers are partly involved in debt due to purchase of farm machinery and maintenance of bullocks. Under the situation whether any reduction in personal debt is observed in the sample cases?
- 8. Examine the implementation of the scheme through different categories of service providers and make a comparative analysis of their performance across the districts
- 9. Examine the reach of services to different categories of farmers across different the districts/divisions. Are there any deviations across the districts, farmer groups? What are the reasons for the same?
- 10. Examine the utilisation of the facilities by women farmers across different regions and social groups. Do they face any difficulties in accessing and utilising the facilities?
- 11. Assess whether the small and marginal farmers, women face denial or discrimination in getting access to the machinery? What are their perspectives across regions and service providers?
- 12. What is the average waiting period? Find out any possibility of conglomeration among service providers to reduce the transaction costs and waiting time.
- 13. Assess the impact of the scheme in detail based on following indicators across Slab-I & Slab II

Table 4: Indicators

	Indicators	Before	After	Observations from control group
i.	Increase in density of tractors/ farm machinery			
ii.	Maintenance of time schedule of Agricultural operations.			
iii.	% Coverage of crops			
iv.	Reduction in harvest post harvest losses			
v.	Area under different crops			
vi.	Production from different crops			
vii.	Operational costs- activity wise			
viii.	Production per ha.			
ix.	Income per ha.			
X.	CB ratio			
xi.	Efficiency in utilization of inputs			
xii.	Any other			

- 14. Assess the level of satisfaction of the farmers about the scheme. Use the citizen report cards to capture the level of satisfaction. What is the opinion of different stakeholders and the community about the scheme? Get the feedback through focus group discussions.
- 15. Are the services provided by the service providers to farmers satisfactory? Whether demand for different types of machinery is adequately addressed?

Service Providers

- 16. Analyse the operational costs and efficiency of different service providers in Slab-I and Slab-II? Are there any variations in it across the agencies and within an agency across the districts? Examine the sustainability of the centres.
- 17. Whether the farmers pay service charges regularly? Assess their opinion regarding service charges for different categories of farm equipment.
- 18. What is the operational status of farm machinery? Whether repairs are taken up regularly? Make the assessment based on physical verification in sample Centres. Whether there is adequate space for storing the farm machinery?
- 19. Is there any Sub optimal asset capacity utilisation due to crop specific requirements in different centres? What measures are adopted to address the same?
- 20. Whether local survey is conducted to identify the equipment required in CHSC? How the district level committees are functioning across the districts? Review the effectiveness of

- monitoring mechanism under the scheme, opinion of different service providers about their involvement in the scheme.
- 21. Analyse and about the implementation of the scheme. Whether the fund flow and support from the Government is timely, regular and adequate? Whether service charges are adequate for covering the costs? What are the difficulties in running the centres and starting the new centres?

General Issues

- 22. There is an assumption that increased farm mechanization will lead to unemployment. Examine the impact on employment in the study area. What is the impact on environment and water conservation due to the operation of the scheme and also on the fodder due to declining use of bullocks.
- 23. The pattern of service providers is from different categories. How far the PPP model is successful and in what mode? Develop patterns of effective partnerships.
- 24. Document the best practices and success stories in the field. Identify the factors that have contributed to success of any centres. Are there any failure cases? Identify the factors for the same.
- 25. Whether the scheme to be continued? If so whether any changes are required in implementation model?

7. Evaluation Methodology:

Table-5 Methodology

Type of data	Method of data collection	Source of information	Method and Tools
	1. Quantitative data	Beneficiaries, non-	Survey, Observations
Primary data		beneficiaries	Citizen report cards
		Beneficiaries, non-	FGD
		beneficiaries	
	2. Qualitative data	State level, district level,	IDI-interview
		taluk level, hobli level	schedules
		and service providers.	
Secondary data	Data from the	Department, district and	On selected
	department, annual	taluka levels.	indicators relevant
	Reports		for the evaluation

Sampling Methodology

The Scheme has two slabs, Slab -l are big size centres covering diverse cropping zones and Slab-ll covers small centres in mono cropping zones. The scheme is implemented in PPP mode hence the role of service provider is also important in implementation and the impact of the scheme. Further the requirement of farm machinery differs across the different agro climatic zones. Hence this factor also needs to be considered in the study.

- The sample consists of 105 centres covering all the divisions and service providers in the State.
- In addition two best performing centres at Sirwara and Arabhavi to be taken up as case studies.
- Care to be taken to cover all the 10 agro climatic zones in the State. From each
 Centre a final sample of 35 beneficiaries covering all the categories/ groups of
 small and marginal and other farmers (SC, ST, OBC, women and others) will be
 drawn for the study. The total number of beneficiaries in the final sample is 3750
 farmers.
- Control sample of 1 % (max 50) farmers randomly across different service providers' operating areas.
- The Total sample is 3800 beneficiaries.
- Random Sample Selection to be done at KEA

The distribution of the Centres across the service providers is indicated in the following table.

Table -6 Division/district wise and Service provider wise distribution of the sample

Sl.No.	Service Providers	Centres
1.	SKDRDP	46 (12Slab-I)
2.	ISAP	03
3.	VST	18 (Slab-I)
4.	JOHN	12
5.	KALA	08
6.	M & M	18
	Total	105+2*=107

^{*}case studies

Table-7 Agro Climatic Zone wise distribution of the sample

Slab-I

Sl.No.	Zones	Talukas	Talukas in sample
1.	North Eastern Transition Zone	07	05
2.	North Eastern Dry Zone	11	07
3.	Northern Dry Zone	35	22
4.	Central Dry zone	17	11
5.	Eastern Dry zone	24	15
6.	Southern Dry Zone	19	12
7.	Southern Transition zone	13	08
8.	Northern Transition zone	14	09
	Total	1	90

Slab-II

Sl.No.	Zones	Talukas	Talukas in sample
9.	Hilly Zone	22	10
10.	Coastal Zone	13	05
	Total		15

Table 8 : Qualitative data

20 FGD's in 10 agro-climatic zones	Beneficiaries, public representatives, SHG
covering all the Service providers.	members, progressive farmers and knowledge
	persons in the Village/Hobli.
Total of 110 IDI's need to be done	IDI should cover all stakeholders – Dept officials
	State & district level, service providers at all
	centers (1 per centre). 5 at State level

8. Deliverables and time schedule

The Department of Agriculture and KEA will provide the necessary information pertaining to the study and also co-operate with the consultant organization in completing the assignment task within the stipulated time period. The concerned district and taluk officials will be instructed by the Department of Agriculture for providing the required information/data at the taluk and GP levels.

It is expected to complete the present study in 6 months time line, excluding the time taken for approvals at KEA.

Table-9 Timelines and deliverables

a. Inception Report	1 month after signing the agreement
c. Field Data Collection	3 months date of work plan Approval
d. Draft report submission	1 month after field Data Collection
e. Final report dissemination &	1 month after draft report submission
presentation	
Total duration	6 months

9. Qualities expected from the Report

The evaluation report should generally confirm to the United Nations Evaluation Guidelines (LINEG) "Standards for Evaluation in the UN System" and "Ethical Standards of Evaluations". The report should present a comprehensive review of the Scheme/ programme in terms of the content, implementation process, adequacy, information and access to beneficiaries. The Report should provide a scientific assessment of the impact of the Krishi Yantra Dhare scheme on the agricultural production and productivity in agriculture focusing on small and marginal farmers. The qualitative data should be used in unbiased manner to support or for further analysis of the reflections from the quantitative data. The analysis should provide adequate space for assessing the variations across the regions and social categories. Case studies to be presented to bring out the realities at the household level. The report should come out with specific recommendations based on adequate field evidence for any modifications in the programme design, content, implementing procedures, and any other modifications to bring out midcourse corrections to improve the access and impact of the Scheme/Programme.

Structure of the report

The following are the points- only inclusive and not exhaustive- which need to be mandatorily followed in the preparation of evaluation report:

By the very look of the evaluation report it should be evident that the study that of Agriculture Department and Karnataka Evaluation Authority (KEA) which has been done by the Evaluation Consultant Organization. The report should be complete and logically

organized in a clear but simple language. Besides confirming to the qualities covered in the Terms of Reference, report should be arranged in the following order:

Preliminary Part

- Title and Opening Page
- Index
- List of acronyms and abbreviations
- Executive Summary- A section that describes the program, purpose and scope of evaluation, research design and methodology, key findings, constraints and recommendations.
- Background- A section that briefly covers the history or genesis of the sector under which the programme/scheme being evaluated covered. It should give recent fact sheets taken from reliable and published sources and review of the progress of the scheme at Taluka/District level
- 2. Objectives and performance of the program This section includes the stated objectives of the program and the physical and- financial achievements of the selected program in the period of evaluation' It should cover the description or the target group, aim of the program and method of selection of beneficiaries and the physical and financial achievements.
- 3. Review of literature/past evaluation reports and their findings.
- 4. Evaluation Methodology This should include research design, sample design and size, questionnaire design and pilot test, data collection and quality assurance plan.
- 5. Limitations/constraints in the evaluation study. Case Studies & Best practices
- 6. Case Studies & Best practices
- 7. Findings of the evaluation study.
- 8. Recommendations that flow from the evaluation.

Annexure:

- a. Sanctioned Terms of Reference of the study.
- b. Survey tools and questionnaires
- c. List of persons with addresses personally interviewed.
- d. Place, date and number of persons covered by Focus Group Discussion (if applicable).

e. Table showing details of major deviations, non-conformities, digressions of the program.

10. Administrative arrangements

The core team should comprise of the following technical members (list is inclusive but not exhaustive) should possess requisite qualification and experience as stated below:

Table -10: Team to carry out the study

Principal Investigator	Post Graduate in Agriculture /Rural Development with first class /Ph.d in the subject preferable	05 years of experience in field
1 st Core team member	BE Mechanical/Electrical	Should also possess a minimum of three (3) years of experience in allied sector projects
2 nd Core team member	Post Graduate in Statistics/MCA with knowledge of Statistical analysis	3 years experience in data analysis

And such numbers that the evaluation is completed within the schedule time prescribed by the ToR

11. Cost and Schedule of Budget release:

The Output based budget release will be as follows

- 1. The **first instalment** of Consultation fee amounting to 30 % of the total fee shall be payable as advance to the Consultant after the approval of the inception report, but only on execution of a bank guarantee of a scheduled nationalized bank, valid for a period of at least 12 months from the date of issuance of advance.
- 2. The second instalment of Consultation fee amounting to 50 % of the total fee shall be payable to the consultant after the approval of the Draft report.
- 3. The third and final instalment of Consultation fee amounting to 20% of the total fee shall be payable to the Consultant after the receipt of the hard and soft copies of the final report in such format and number as prescribed in the agreement, along with all original documents containing primary and secondary data, processed data outputs, study report and soft copies of all literature used in the final report.

Taxes will be deducted from each payment, as per rates in force. In addition, the evaluations agency/consultant is expected to pay service tax at their end.

12. Selection of Consultant Agency for Evaluation:

The selection of evaluation agency should be finalized as per provisions of KTPP Act and rules without compromising on the quality.

13. Contact person for further details:

1. Mr.Anoop.K.G.

Mobile no. #8277929814

Joint Director of Agriculture (Farm Mechanization section)

Commissionerate of Agriculture, Sheshadri Road, Bengaluru - 01.

2. Dr.M.A.Girish

Mobile no. # 8277929831

Deputy Director of Agriculture (Farm Mechanization & Micro irrigation)

Commissionerate of Agriculture, Sheshadri Road, Bengaluru - 01.

3. Smt.Veena.M.K.

Mobile no. # 8277929993

Agricultural officer (Farm Mechanization & Micro irrigation Section)

Commissionerate of Agriculture, Sheshadri Road, Bengaluru - 01.

NOTE:

The entire set of data was collected from 3780 farmers by adopting approved templates by KEA as per ToR. Considering experience and expertise of the PLUS Trust team members, the data collected was tabulated and analysed for various parameters, besides latest statistical tools were also adopted for analysis and interpretation of the data.

The Plus Trust Office is located in Talakaveri lay out, Amruthahalli and all team members work together through regular discussions and co-operation.

The partners in the Krishi Yantra Dhare are service providers, Department of Agriculture and farmers. The performance of the activities are evaluated by the Plus Trust as per the ToR, hence it is becomes 3rd party evaluation.

ANNEXURE VII: Template for Primary data collection from beneficiaries (to be selected from list of beneficiaries of CHSC covering SF/MF/SC/ST/OBC/Women)

Date of interview:

Name of the interviewer:

Name of the CHSC:	••		
A. General Information			
Name of the farmer			
Father/Husband name			
Village, Hobli, Taluk and District			
Age			
Category	SF/MF/SC/ST/OBC/W	omen	
Educational level	a) Illiterate b) Primary c) Secondary d)Graduate and above		
Family size	No. of Males: Female: Children:		
Mobile/Tele.No.			
Area of operational holdings (Acres)	Irrigated	Rainfed	
i. Owned			
ii. Leased			
Crops grown (Acres)	Before use of machineries	After use of machineries	
1.			
2.			
3.			
4.			
4.	cy of use(regularly/occa	sionally/never)	

Sl.No Particulars			Response
C. Opinion of the farmers about CHSC			
Any other implement/machinery- Mention			
M.B.Plough/ Cultivator/ Blade harrow/ Leveler/ Seed drill/ Sprayer/ Thresher/ Tractor trolley	Mark √ if available		
Power tiller	Y/N		
Tractor	Y/N		
Agricultural machineries/equipment	Response	Owned	Hired from CHSC
B.Status of farm machineries and implements			
d) Any other agencies			
c) Input agencies			
b) Farm scientists			
a) Line dept. officials			
Extension contacts: Frequency	of contact (r	egularly/occ	casionally/never)
e) others			
d) TV			
c) Farm magazines			
b) Radio			

Sl.No	Particulars	Response
1	Which field operations are covered by CHSC machineries	Land preparation/Sowing/ Planting/ Inter cultivation/Plant protection/ Harvesting/ Threshing/ Drying
2	Whether the machineries are well maintained at CHSC or not	Y/N
	Are the machineries are of good quality	Y/N
3	Is there any change in cropping pattern after using CHSC machineries	Y/N

	If yes, which new crop is introduced	
4	Have you reduced borrowing crop loans after using CHSC equipment	Y/N
5	Have you faced any problem in getting CHSC service	Y/N
6	What is the average waiting period to get service from CHSC	days
7	Are you satisfied with the CHSC service	Highly satisfied/Satisfied/Partially satisfied
8	Did you get machinery you needed in time from CHSC	Y/N
9	Whether CHSC is charging rates approved by dept and displayed at CHSC center	Y/N
	If yes, What is your opinion of hiring charges in CHSC	High/Medium/Low
10	Has the labour requirement come down by using CHSC machinery	Y/N
	If yes, how many labours are saved	No. per season
	Whether different agricultural operations could be taken up in time due to use of CHSC machinery?	Y/N
11	Have you observed moisture conservation in your field by using CHSC machinery	Y/N
12	Do you feel that the cattles will face fodder shortage in drought years in your village	Y/N
13	Impact of CHSC on productivity and total production –Crop wise	Before After A P Y A P Y
	a.	
	b.	
	c.	
	d.	

14	Whether the cost of cultivation has reduced after use of CHSC machinery	Y/	N
	If Yes, by how much		
15	Whether, the net profit has increased by use of CHSC machinery?	Y/	N
	If Yes, by how much		
16	Should the CHSC scheme be continued or not	Y/	N
17	Whether, quantity of agricultural machinery at CHSC has to be increased	Y/	N
	If yes, which machine? How much quantity?		
18	Whether, any new agricultural machinery at CHSC has to be introduced	Y/N	
	If yes, which machine?		
19	After use of CHSC machineries, whether post harvest losses are reduced?	Y/	N
	If yes, to what extent		. %
20	Whether use of machinery/tractors is increased after implementing CHSC (Indicate frequency)	Before	After
21	Whether use of inputs has increased after use of CHSC equipment	(Y/	N)

NOTE: Y/N: Yes/No

A P Y: A: Area (Acres), P: Production (Qtls), Y: Yield (Kg/Ac)

ANNEXURE VIII: Template for in-depth data collection (IDI) from stake holders

(Service providers)

Name o	of CHSC:	
Hobli,	Гaluk, District:	
Date of	starting CHSC	
Sponso	r of CHSC: SKDRD/ISAP/VST/John/KALA/MM	
Staff w	orking in CHSC	
Sl.No.	Particulars	
1	How many villages do you cover?	
	Longest and shortest distance	••••

Name of the interviewer: Date of interview:

1	How many villa	iges do you cover?				
	Longest and sho	ortest distance			Km	Km
	Is there any uncovered area				Y/N	
	If yes, What yo	ou have done to in	mprove the serv	rice		
	to uncovered are	ea				
2	Investment (Rs))			Govt: Service provi Total :	der:
3	Which machine	ry is in great dema	nd?			
4	List the farm eq	uipment available	in the CHSC			
5	Performance of	CHSC (Mean)-An	inually			
	Details	Number used	Rent collection (Rs.)	N	o. of farmers	No. of villages covered
	Equipment					
	Machineries					
	Total					
6	Category wise c	coverage of service	es per year-			

Response

	Total No. of beneficiaries	
	Categories:	SF () MF () SC() ST () OBC () Women ()
7	Have you faced any problem in providing service to SF/MF/SC/ST/OBC/Women categories	Y/N
8	Do you suggest any method to reduce cost of hiring and waiting period	
9	Are you satisfied with the CHSC scheme	Highly satisfied/Satisfied/ Partially satisfied
10	What action you have taken to satisfy the demand for different types of machineries	
11	Annual cost of operation of CHSC centre (Rupees)	
	1. 2014-15 2. 2015-16 3. 2016-17	
12	Annual returns of the CHSC Centre (Rupees)	
	1. 2014-15 2. 2015-16 3. 2016-17	
13	Whether the farmers pay for the service regularly	Y/N
14	Repairs (Annual charges)	
	1. 2014-15 2. 2015-16 3. 2016-17	
15	Tariff charges for different equipment	
	Name of machinery/equipment	Hire charges (Rs/day/hour)
		(Enclose the list approved by CEO, ZP)
16	Whether all machineries are in operation	Y/N
	If No, how many are inoperative	
	What rectification measure you have taken for the	

Whether adequate space is available or not	Y/N
How many machines/equipment are idle	
How many machines/equipment are sparingly hired (Less than 3 times/season)	
Did you conduct local survey to identify machineries/equipment	Y/N
Whether fund flow/support from Govt. is	
a. Timely	Y/N
c. Adequate	Y/N
	Y/N
Whether service charges cover cost of operation or not	Y/N
Which factor has worked in your centre	
a. For success	1.
h For failure	2.
b. For famule	1.
	2.
Give suggestions to improve the efficiency of the CHSC	
	How many machines/equipment are idle How many machines/equipment are sparingly hired (Less than 3 times/season) Did you conduct local survey to identify machineries/equipment Whether fund flow/support from Govt. is a. Timely b. Regular c. Adequate Whether service charges cover cost of operation or not Which factor has worked in your centre a. For success b. For failure Give suggestions to improve the efficiency of the

ANNEXURE IX: Template for data collection from Govt. Official

Name of the Official and designation:

Name of the RSK:

Taluk and District

Name of the interviewer: Date of interview:

Sl.No.	Particulars	Response
1	Which farm operation needs CHSC machinery?	1.
		2.
		3.
2	How frequently CHSC have been visited	No./year
3	Have you given any suggestions to CHSC for improvement	Yes/NO
	If Yes, important suggestions given	1.
		2.
		3.
4	What is the overall impact of CHSC on agriculture	
5	Did you conduct local survey to identify machineries/equipment	Y/N
6	Whether district level committee have reviewed the list of equipment/machineries in the CHSC	Y/N
7	Main features of district level committee findings	i.
		ii.
		ii.

ANNEXURE X: Template for Focus Group Discussion (FGD)

- to be conducted by District/liaison Officer (Beneficiaries, public representatives, SHG members, progressive farmers and other knowledge persons of the people)

Name of the interviewer: Date of interview:

Sl.No.	Particulars	Response
1	Whether Krishi Yantra Dhare is useful to farmers or not	Y/N
	If No, what improvement is needed?	
	If yes, which category of farmers have not got benefit	SF/MF/SC/ST/OBC/Women
2	Whether all needy farmers had accessed to service or not?	Y/N
	If No, what is the reason	
3	What percentage of farming population of the village/CHSC has availed the service	%
4	Whether cost of hiring machineries is affordable or not	High/Medium/Low
5	Has your service provider kept all the machineries in demand	Y/N
	Which machinery is used frequently and why?	
	Which machinery in great demand is not kept in CHSC	
	Which machinery is required to be stored in more No.	
6	Has your service provider assessed the need of the machinery in the village	Y/N
7	Has District Committee visited the village and assessed the need for various machineries	Y/N
8	What is the impact of CHSC in your village($$)	 a. Cost of cultivation reduced b. Timely operation c. Reduction in labour requirement d. Yield improvement e. Moisture conservation f. Timely plant protection g. Timely harvesting/threshing/drying
9	How many farmers in each of the village are aware of the CHSC scheme	%

ANNEXURE XI: List of CHSC Centres, for data collection

Sl. No.	CHSC	Taluk	District	Agency	Zone
1	Mudhol	Mudhol	Bagalakot	JOHN	3
2	Guledagudda	Badami	Bagalakot	SKDRD	3
3	Kampli	Hospet	Ballari	MM	3
4	Moka	Ballari/Hospet	Ballari	MM	3
5	Thoranagallu	Sandur/Thoranagallu	Ballari	MM	3
6	Hampasagara	H.B.Halli	Ballari	SKDRD	3
7	Kamalapura	Hospet	Ballari	SKDRD	3
8	Hirebagewadi	Belagavi	Belagavi	SKDRD	8
9	Jambhot/Gandhiwada	Khanapura	Belagavi	SKDRD	9
10	Kagawada/Ugarabudruke	Athani	Belagavi	SKDRD	3
11	Kitturu	Bailahongala	Belagavi	SKDRD	8
12	Sadalaga (Yakasamba)	Chikkodi	Belagavi	SKDRD	8
13	Gokak (Khangon)	Gokak	Belagavi	VST	3
14	Thyamagundlu	Nelamangala	Bengaluru Rural	SKDRD	5
15	Sasulu	Doddaballapura	Bengaluru Rural	VST	5
16	Athibele	Anekal	Bengaluru Urban	VST	5
17	Santhapura (Kamalnagar)	Aurad	Bidar	ISAP	1
18	Agara	Yelanduru	Chamarajanagara	SKDRD	6
19	Harave (Haradanahalli)	Chamarajanagara	Chamarajanagara	SKDRD	6
20	Hosuru	Gauribidanur	Chikkaballapura	SKDRD	5
21	Mandikal	Chikkaballapura	Chikkaballapura	SKDRD	5
22	D.Palya	Gauribidanur	Chikkaballapura	VST	5
23	Gudibande (Machahalli)	Gudibande	Chikkaballapura	VST	5
24	Ajjampura	Tarikere	Chikkamagaluru	SKDRD	7
25	Ambal	Chikkamagalur	Chikkamagaluru	SKDRD	9
26	Mathodu	Hosadurga	Chitradurga	SKDRD	4
27	Malakalmuru (Hangal)	Molakalmuru	Chitradurga	VST	4
28	Nayakanahatti	Challakere	Chitradurga	VST	4
29	Panja	Sulya	D.Kannada	SKDRD	10
30	Uppinangadi	Putturu	D.Kannada	SKDRD	10

Sl. No.	CHSC	Taluk	District	Agency	Zone
31	Uppinangadi (Kadaba)	Putturu	D.Kannada	VST	10
32	Govinakovi	Honnali	Davanagere	JOHN	7
33	Sokke (Hosakere)	Jagaluru	Davanagere	JOHN	4
34	Telagi	Harapanahalli	Davanagere	JOHN	3
35	Aminbhavi	Dharwad	Dharwad	JOHN	8
36	Alnavara	Dharwad	Dharwad	SKDRD	8
37	Annigeri	Navalagunda	Dharwad	SKDRD	3
38	Dummawada	Kalaghatagi	Dharwad	SKDRD	9
39	Mulagunda	Gadag	Gadag	John	3
40	Mundaragi	Mundaragi	Gadag	John	3
41	Arasikere	Arasikere	Hassan	SKDRD	4
42	Belegodu/Ballupete	Sakleshpur	Hassan	SKDRD	9
43	Dudda	Hassan	Hassan	SKDRD	6
44	Halekote	Holenarasipura	Hassan	SKDRD	7
45	Palya	Aluru	Hassan	SKDRD	7
46	Akkialuru	Hanagal	Haveri	SKDRD	9
47	Kaginele	Byadagi	Haveri	SKDRD	8
48	Aathanuru	Afzalpura	Kalaburagi	ISAP	2
49	Chittapura	Chittapura	Kalaburagi	MM	2
50	Farhathabad	Kalaburagi/Afzalpur	Kalaburagi	MM	2
51	Adaki	Sedam	Kalaburagi	MM	2
52	Narona	Aland	Kalaburagi	MM	1
53	Nimbarga	Aland	Kalaburagi	MM	1
54	Pattan	Kalaburagi	Kalaburagi	MM	2
55	Bagamandala	Madikeri	Kodagu	SKDRD	9
56	Bethamangala	Bangarapet	Kolar	SKDRD	5
57	Masti	Maluru	Kolar	SKDRD	5
58	Avani	Mulabagilu	Kolar	JOHN	5
59	Dalasanuru	Sreenivasapur	Kolar	VST	5
60	Kyasamballi	KGF/Bangarapet	Kolar	JOHN	5
61	Lakkuru	Maluru	Kolar	JOHN	5

Sl. No.	CHSC	Taluk	District	Agency	Zone
62	Narasapura	Kolara	Kolar	JOHN	5
63	Hitnal	Koppala	Koppala	MM	3
64	Kanakagiri	Gangavathi/	Koppala	MM	3
		Kanakagiri			
65	Hulihyder/Somasagara	Gangavathi/Kanakagiri	Koppala	SKDRD	3
66	Aathaguru	Madduru	Mandya	SKDRD	6
67	Basaralu	Mandya	Mandya	SKDRD	6
68	Cheenya	Nagamangala	Mandya	VST	6
69	Halaguru	Malavalli	Mandya	VST	6
70	Koppa	Madduru	Mandya	VST	6
71	Kothathi	Mandya	Mandya	VST	6
72	Chikkayanachathra	Nanjangudu	Mysuru	MM	6
73	Gowdagere	Hunasuru	Mysuru	MM	7
74	Hampapura	H.D.Kote	Mysuru	MM	7
75	Huluhalli	Nanjangudu	Mysuru	MM	6
76	Hunasuru	Hunasuru	Mysuru	MM	7
77	Ilawala/Huilalu	Mysuru	Mysuru	MM	6
78	Jayapura	Mysuru	Mysuru	MM	6
79	Kandalike	H.D.Kote	Mysuru	MM	7
80	Bannuru	T.Narasipura	Mysuru	SKDRD	6
81	Varuna	Mysuru	Mysuru	SKDRD	6
82	Balaganuru	Maski/Sindhanoor	Raichur	MM	3
83	Gillesugur	Raichur	Raichur	MM	2
84	Gudaduru	Maski/Sindhanoor	Raichur	MM	3
85	Bavarley	Sindhanoor	Raichur	SKDRD	3
86	Chandrabanda	Raichur	Raichur	SKDRD	2
87	Doddamaralawadi	Kanakapura	Ramanagara	SKDRD	5
88	Kumsi	Shivamogga	Shivamogga	JOHN	7
89	Anandapura	Sagara	Shivamogga	SKDRD	9
90	Kudligere/Veerapura	Bhadravathi	Shivamogga	SKDRD	7
91	Amrathuru	Kunigal	Tumakuru	SKDRD	6

Sl. No.	CHSC	Taluk	District	Agency	Zone
92	Hebburu	Tumakuru	Tumakuru	SKDRD	5
93	Kodigenahalli	Madhugiri	Tumakuru	SKDRD	4
94	Holavanahalli	Koratagere	Tumakuru	VST	4
95	Y.N.Hosakote	Pavagada	Tumakuru	VST	4
96	Yeduyuru	Kunigal	Tumakuru	VST	6
97	Sirsi	Sirsi	U.Kannada	JOHN	9
98	Balale	Ankola	U.Kannada	SKDRD	10
99	Bainduru	Kundapura	Udupi	SKDRD	10
100	Kundapura	Kundapura	Udupi	VST	10
101	Huvinahipparagi	B.Bagewadi	Vijayapura	KALA	3
102	Mamadapura	Vijayapura	Vijayapura	KALA	3
103	Hunasigi	Yadigiri	Yadgir	MM	2
104	Dornahalli	Shahapur	Yadgir	ISAP	2
105	Gogi	Shahapur	Yadgir	MM	2

ANNEXURE XII: Distribution of CHSCs across different agro ecological zones

Zone	District	CHSC	Taluk	Agency
NETZ	Bidar	Santhapura (Kamalnagar),	Aurad	ISAP
	Kalaburagi	Narona	Aland	MM
	Kalaburagi	Nimbarga,	Aland	MM
NETZ	Total			3
NEDZ	Kalaburagi	Aathanuru	Afzalpura	ISAP
	Yadgir	Dornahalli	Shahapur	ISAP
	Yadgir	Gogi	Shahapur	MM
	Kalaburagi	Chittapura	Chittapura	MM
	Kalaburagi	Farhathabad	Kalaburagi/Afzalpur	MM
	Kalaburagi	Adaki	Sedam	MM
	Kalaburagi	Pattan	Kalaburagi	MM
	Raichur	Gillesugur	Raichur	MM
	Yadagiri	Hunasigi	Yadigiri	MM
	Raichur	Chandrabanda	Raichur	SKDRD
NEDZ '	Total			10
NDZ	Bagalakot	Mudhol	Mudhol	JOHN
	Davanagere	Telagi	Harapanahalli	JOHN
	Ballari	Kampli	Hospet	MM
	Ballari	Moka	Ballari/Hospet	MM
	Ballari	Thoranagallu	Sandur/Thoranagallu	MM
	Koppala	Hitnal	Koppala	MM
	Koppala	Kanakagiri	Gangavathi/Kanakagiri	MM
	Vijayapura	Huvinahipparagi	B.Bagewadi	KALA
	Vijayapura	Mamadapura	Vijayapura	KALA
	Raichur	Balaganuru	Maski/Sindhanoor	MM
Zone	District	CHSC	Taluk	Agency

Chikkaballapura	Mandikal	Chikkaballapura	SKDRD
Chikkaballapura	Hosuru	Gauribidanur	SKDRD
District	CHSC	Taluk	Agency
	-		SKDRD
Kolara		Kolara	JOHN
			JOHN
		KGF	JOHN
Kolara			VST
T	Avani	Mulabagilu	JOHN
			8
			VST
	_		VST
			VST
			VST
			SKDRD
Hassan	Arasikere	Arasikere	SKDRD
			SKDRD
T	Sokke (Hosakere)	Jagaluru	JOHN
			21
			John
			John
	•		VST
	-		SKDRD
			SKDRD SKDRD
			SKDRD
	1		SKDRD
			SKDRD
_			SKDRD
Raichur	Gudaduru	Maski/Sindhanoor	MM
	Bagalakot Ballari Ballari Belagavi Dharwad Koppala Raichur Belagavi Gadag Gadag Otal Davanagere Chitradurga Hassan Tumakuru Chitradurga Tumakuru Tumakuru Tumakuru Tumakuru Tumakuru Tumakuru Otal Kolara Kolara Kolara Kolara Bengaluru Rural District Chikkaballapura	Bagalakot Guledagudda Ballari Hampasagara Ballari Kamalapura Belagavi Kagawada/Ugarabudruke Dharwad Annigeri Koppala Hulihyder/Somasagara Raichur Bavarley Belagavi Gokak (Khangon) Gadag Mulagunda Gadag Mundaragi otal Davanagere Sokke (Hosakere) Chitradurga Mathodu Hassan Arasikere Tumakuru Kodigenahalli Chitradurga Malakalmuru (Hangal) Chitradurga Nayakanahatti Tumakuru Holavanahalli Tumakuru Y.N.Hosakote otal Kolara Avani Kolara Avani Kolara Lakkuru Kolara Narasapura Bengaluru Rural Thyamagundlu District CHSC Chikkaballapura	Bagalakot Guledagudda Badami Ballari Hampasagara H.B.Halli Ballari Kamalapura Hospet Belagavi Kagawada/Ugarabudruke Athani Dharwad Annigeri Navalagunda Koppala Hulihyder/Somasagara Gangavathi/Kanakagiri Raichur Bavarley Sindhanoor Belagavi Gokak (Khangon) Gokak Gadag Mulagunda Gadag Gadag Mundaragi Mundaragi otal Davanagere Sokke (Hosakere) Jagaluru Chitradurga Mathodu Hosadurga Hassan Arasikere Arasikere Tumakuru Kodigenahalli Madhugiri Chitradurga Nayakanahatti Challakere Tumakuru Holavanahalli Koratagere Tumakuru Holavanahalli Koratagere Tumakuru Y.N.Hosakote Pavagada otal Kolara Avani Mulabagilu Kolara Dalasanuru Sreenivasapur Kolara Kyasamballi KGF Kolara Lakkuru Maluru Kolara Narasapura Kolara Bengaluru Rural Thyamagundlu Nelamangala District CHSC Taluk Chikkaballapura

	Kolar	Bethamangala	Bangarapet	SKDRD
	Kolar	Masti	Maluru	SKDRD
	Ramanagara	Doddamaralawadi	Kanakapura	SKDRD
	Tumakuru	Hebburu	Tumakuru	SKDRD
	Bengaluru Rural	Sasulu	Doddaballapura	VST
	Bengaluru Urban	Athibele	Anekal	VST
	Chikkaballapura	D.Palya	Gauribidanur	VST
	Chikkaballapura	Gudibande (Machahalli)	Gudibande	VST
EDZ T	otal			16
SDZ	Mysuru	Chikkayanachathra	Nanjangudu	MM
	Mysuru	Huluhalli	Nanjangudu	MM
	Mysuru	Ilawala/Huilalu	Mysuru	MM
	Mysuru	Jayapura	Mysuru	MM
	Chamarajanagara	Agara	Yelanduru	SKDRD
	Chamarajanagara	Harave (Haradanahalli)	Chamarajanagara	SKDRD
	Hassan	Dudda	Hassan	SKDRD
	Mandya	Aathaguru	Madduru	SKDRD
	Mandya	Basaralu	Mandya	SKDRD
	Mysuru	Bannuru	T.Narasipura	SKDRD
	Mysuru	Varuna	Mysuru	SKDRD
	Tumakuru	Amrathuru	Kunigal	SKDRD
	Mandya	Cheenya	Nagamangala	VST
	Mandya	Halaguru	Malavalli	VST
	Mandya	Koppa	Madduru	VST
	Mandya	Kothathi	Mandya	VST
Zone	District	CHSC	Taluk	Agency
	Tumakuru	Yeduyuru	Kunigal	VST
SDZ T	otal	<u>I</u>	1	17
STZ	Davanagere	Govinakovi	Honnali	JOHN
	Shivamogga	Kumsi	Shivamogga	JOHN

	Mysuru	Gowdagere	Hunasuru	MM
	Mysuru	Hampapura	H.D.Kote	MM
	Mysuru	Hunasuru	Hunasuru	MM
	Mysuru	Kandalike	H.D.Kote	MM
	Chikkamagaluru	Ajjampura	Tarikere	SKDRD
	Hassan	Halekote	Holenarasipura	SKDRD
	Hassan	Palya	Aluru	SKDRD
	Shivamogga	Kudligere/Veerapura	Bhadravathi	SKDRD
STZ To	tal		-	10
NTZ	Dharwad	Aminbhavi	Dharwad	JOHN
	Belagavi	Hirebagewadi	Belagavi	SKDRD
	Belagavi	Kitturu	Bailahongala	SKDRD
	Belagavi	Sadalaga (Yakasamba)	Chikkodi	SKDRD
	Dharwad	Alnavara	Dharwad	SKDRD
	Haveri	Kaginele	Byadagi	SKDRD
NTZ To	otal			6
HZ	U.Kannada	Sirsi	Sirsi	JOHN
	Belagavi	Jambhot/Gandhiwada	Khanapura	SKDRD
	Chikkamagaluru	Ambal	Chikkamagalur	SKDRD
	Dharwad	Dummawada	Kalaghatagi	SKDRD
	Hassan	Belegodu/Ballupete	Sakleshpur	SKDRD
	Haveri	Akkialuru	Hanagal	SKDRD
	Kodagu	Bagamandala	Madikeri	SKDRD
Zone	District	CHSC	Taluk	Agency
	Shivamogga	Anandapura	Sagara	SKDRD
HZ Tot	al			8
CZ	D.Kannada	Panja	Sulya	SKDRD
	D.Kannada	Uppinangadi	Putturu	SKDRD
	U.Kannada	Balale	Ankola	SKDRD
	Udupi	Bainduru	Kundapura	SKDRD
	D.Kannada	Uppinangadi (Kadaba)	Putturu	VST
	Udupi	Kundapura	Kundapura	VST
CZ Tot	al			6
Grand	Total			105

ANNEXURE XIII: Service provider wise CHSCs selected for evaluation of Krishi Yanthra Dhare

Sl.No.	District	CHSC	Taluk	Agency			
1	Bidar	Santhapura (Kamalnagar)	Aurad	ISAP			
	Kalaburagi	Aathanuru	Afzalpura	ISAP			
	Yadgir	Dornahalli	Shahapur	ISAP			
		ISAP		3			
2	Bagalakot	Mudhol	Mudhol	JOHN			
	Davanagere	Telagi	Harapanahalli	JOHN			
	Davanagere	Sokke (Hosakere)	Jagaluru	JOHN			
	Davanagere	Govinakovi	Honnali	JOHN			
	Dharwad	Aminbhavi	Dharwad	JOHN			
	Gadag	Mulagunda	Gadag	JOHN			
	Gadag	Mundaragi	Mundaragi	JOHN			
	Kolara	Avani	vani Mulabagilu				
	Kolara	Kyasamballi	KGF	JOHN			
	Kolara	Lakkuru	Maluru	JOHN			
	Kolara	Narasapura	Kolara	JOHN			
	Shivamogga	Kumsi	Shivamogga	JOHN			
	U.Kannada	Sirsi	Sirsi	JOHN			
		JOHN DEER		13			
3	Vijayapura	Huvinahipparagi	B.Bagewadi	KALA			
	Vijayapura	Mamadapura	Vijayapura	KALA			
		KALA		2			
4	Ballari	Kampli	Hospet	MM			
	Ballari	Moka	Ballari/Hospet	MM			
	Ballari	Thoranagallu	Sandur/Thoranagallu	MM			
	Kalaburagi	Narona	Aland	MM			
Sl.No.	District	CHSC	Taluk	Agency			

	Kalaburagi	Chittapura	Chittapura	MM
	Kalaburagi	Farhathabad	Kalaburagi/Afzalpur	MM
	Kalaburagi	Adaki	Sedam	MM
	Kalaburagi	Pattan	Kalaburagi	MM
	Koppala	Hitnal	Koppala	MM
	Koppala	Kanakagiri	Gangavathi/Kanakagiri	MM
	Mysuru	Chikkayanachathra	Nanjangudu	MM
	Mysuru	Huluhalli	Nanjangudu	MM
	Mysuru	Ilawala/Huilalu	Mysuru	MM
	Mysuru	Jayapura	Mysuru	MM
	Mysuru	Gowdagere	Hunasuru	MM
	Mysuru	Hampapura	H.D.Kote	MM
	Mysuru	Hunasuru	Hunasuru	MM
	Mysuru	Kandalike	H.D.Kote	MM
	Raichur	Gillesugur	Raichur	MM
	Raichur	Balaganuru	Maski/Sindhanoor	MM
	Raichur	Gudaduru	Maski/Sindhanoor	MM
	Yadagiri	Hunasigi	Yadigiri	MM
	Yadgir	Gogi	Shahapur	MM
		M & M		24
5	Bagalakot	Guledagudda	Badami	SKDRD
	Ballari	Hampasagara	H.B.Halli	SKDRD
	Ballari	Kamalapura	Hospet	SKDRD
	Belagavi	Kagawada/Ugarabudruke	Athani	SKDRD
	Belagavi	Hirebagewadi	Belagavi	SKDRD
	Belagavi	Kitturu	Bailahongala	SKDRD
Sl.No.	District	CHSC	Taluk	Agency
	Belagavi	Sadalaga (Yakasamba)	Chikkodi	SKDRD
	Belagavi	Jambhot/Gandhiwada	Khanapura	SKDRD

	Bengaluru Rural	Thyamagundlu	Nelamangala	SKDRD	
	Chamarajanagara	Agara	Yelanduru	SKDRD	
	Chamarajanagara	Harave (Haradanahalli)	Chamarajanagara	SKDRD	
	Chikkaballapura	Hosuru	Gauribidanur	SKDRD	
	Chikkaballapura	Mandikal	Chikkaballapura	SKDRD	
	Chikkamagaluru	Ajjampura	Tarikere	SKDRD	
	Chikkamagaluru	Ambal	Chikkamagalur	SKDRD	
	Chitradurga	Mathodu	Hosadurga	SKDRD	
	D.Kannada	Panja	Sulya	SKDRD	
	D.Kannada	Uppinangadi	Putturu	SKDRD	
	Dharwad	Annigeri	Navalagunda	SKDRD	
	Dharwad	Alnavara	Dharwad	SKDRD	
	Dharwad	Dummawada	Kalaghatagi	SKDRD	
	Hassan	Arasikere	Arasikere	SKDRD	
	Hassan	Dudda	Hassan	SKDRD	
	Hassan	Halekote	Holenarasipura	SKDRD	
	Hassan	Palya	Aluru	SKDRD	
	Hassan	Belegodu/Ballupete	Sakleshpur	SKDRD	
	Haveri	Kaginele	Byadagi	SKDRD	
	Haveri	Akkialuru	Hanagal	SKDRD	
	Kodagu	Bagamandala	Madikeri	SKDRD	
	Kolar	Bethamangala	Bangarapet	SKDRD	
	Kolar	Masti	Maluru	SKDRD	
	Koppala	Hulihyder/Somasagara	Gangavathi/Kanakagiri	SKDRD	
	Mandya	Aathaguru	Madduru	SKDRD	
Sl.No.	District	CHSC	Taluk	Agency	
	Mandya	Basaralu	Mandya	SKDRD	
	Mysuru	Bannuru	T.Narasipura	SKDRD	
	Mysuru	Varuna	Mysuru	SKDRD	
	Raichur	Chandrabanda	Raichur	SKDRD	

		Grand Total		105						
	VST									
	Udupi	Kundapura	Kundapura	VST						
	Tumakuru	Yeduyuru	Kunigal	VST						
	Tumakuru	Y.N.Hosakote	Pavagada	VST						
	Tumakuru	Holavanahalli	Koratagere	VST						
Sl.No.	District	CHSC	Taluk	Agency						
	Mandya	Kothathi	Mandya	VST						
	Mandya	Koppa	Madduru	VST						
	Mandya	Halaguru	Malavalli	VST						
	Mandya	Cheenya	Nagamangala	VST						
	Kolara	Dalasanuru	Sreenivasapur	VST						
	D.Kannada	Uppinangadi (Kadaba)	Putturu	VST						
	Chitradurga	Nayakanahatti	Challakere	VST						
	Chitradurga	Malakalmuru (Hangal)	Molakalmuru	VST						
	Chikkaballapura	Gudibande (Machahalli)	Gudibande	VST						
	Chikkaballapura	D.Palya	Gauribidanur	VST						
	Bengaluru Urban	Athibele	Anekal	VST						
	Bengaluru Rural	Sasulu	Doddaballapura	VST						
6	Belagavi	Gokak (Khangon)	Gokak	VST						
	I	SKDRD	1	46						
	Udupi	Bainduru	Kundapura	SKDRD						
	U.Kannada	Balale	Ankola	SKDRD						
	Tumakuru	Amrathuru	Kunigal	SKDRD						
	Tumakuru	Hebburu	Tumakuru	SKDRD						
	Tumakuru	Kodigenahalli	Madhugiri	SKDRD						
	Shivamogga	Anandapura	Sagara	SKDRD						
	Shivamogga	Kudligere/Veerapura	Bhadravathi	SKDRD						
	Ramanagara	Doddamaralawadi	Kanakapura	SKDRD						
	Raichur	Bavarley	Sindhanoor	SKDRD						

ANNEXURE XIV: Zone-wise productivity and crop wise net returns and B:C ratio

Productivity in qtls/ac, amount in Rupees

						Paddy					
			Before			After					
Zone	Productiv ity	Gross retur ns	Cost of cultivati on /Ac	Net income/ Ac	B: C rati o	Productiv ity	Gross retur ns	Cost of cultivati on /Ac	Net income/ Ac	B: C rati o	% increa se in net return s
NETZ			20850					19800			
NEDZ	16.60	33200	20850	12350	1.5 9	18.04	36083	19800	16283	1.8 2	9.22
NDZ	23.73	47457	20850	26607	2.2	26.63	53250	19800	33450	2.6 9	26.66
CDZ	29.35	58708	20850	37858	2.8	30.86	61729	19800	41929	3.1	12.51
EDZ	22.98	45954	20850	25104	2.2	23.93	47856	19800	28056	2.4	12.02
SDZ	14.93	29853	20850	9003	1.4	14.92	29841	19800	10041	1.5 1	-51.91
STZ	20.96	41918	20850	21068	2.0	21.83	43657	19800	23857	2.2	13.05
NTZ	29.30	58606	20850	37756	2.8	31.20	62400	19800	42600	3.1	12.83
HZ	18.82	37637	20850	16787	1.8	19.96	39919	19800	20119	2.0	35.74
CZ	23.01	46030	20850	25180	2.2	21.85	43699	19800	23886	2.2	-2.41
Avera ge	21.12	42238	20850	21388	2.0	22.23	44454	19800	24654	2.2	15.27

Note: 1. Before: 2014-15 After: 2016-17

^{2.} The cost of cultivation Rs/ac was obtained from All India Co-ordinated Scheme of UAS, Bengaluru, which is common to all zones for a given crop

	Ragi												
			Before					After					
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ			16300					16150					
NEDZ			16300					16150					
NDZ	9.94	28767	16300	12467	1.76	10.36	29990	16150	13840	1.86	8.68		
CDZ	8.34	24153	16300	7853	1.48	9.66	27959	16150	11809	1.73	70.03		
EDZ	6.83	19768	16300	3468	1.21	8.76	25372	16150	9222	1.57	364.10		
SDZ	6.25	18107	16300	1807	1.11	7.87	22778	16150	6628	1.41	-20.49		
STZ	7.60	22007	16300	5707	1.35	8.39	24280	16150	8130	1.50	42.74		
NTZ			16300					16150					
HZ	9.51	27526	16300	11226	1.69	11.07	32035	16150	15885	1.98	41.50		
CZ			16300					16150					
Average	6.92	20028	16300	3728	1.23	8.53	24701	16150	8551	1.53	129.40		

		Maize												
			Before			After								
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns			
NETZ			16250					15440						
NEDZ			16250					15440						
NDZ	11.60	22623	16250	6373	1.39	12.38	24137	15440	8697	1.56	47.04			
CDZ	14.33	27935	16250	11685	1.72	16.99	33136	15440	17696	2.15	3412.84			
EDZ	7.90	15398	16250	-852	0.95	11.48	22393	15440	6953	1.45	12.58			
SDZ	12.71	24778	16250	8528	1.52	13.99	27287	15440	11847	1.77	-13.00			
STZ	8.41	16395	16250	145	1.01	9.91	19331	15440	3891	1.25	653.84			
NTZ	17.60	34315	16250	18065	2.11	18.30	35677	15440	20237	2.31	12.02			
HZ	11.37	22177	16250	5927	1.36	11.84	23093	15440	7653	1.50	-129.52			
CZ			16250					15440						
Average	13.10	25548	16250	9298	1.57	14.24	27765	15440	12325	1.80	32.56			

	Jowar												
			Before					Afte	r				
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ			8150					7750					
NEDZ	5.20	12480	8150	4330	1.53	6.11	14653	7750	6903	1.89	-1.19		
NDZ	6.96	16694	8150	8544	2.05	7.76	18632	7750	10882	2.40	37.57		
CDZ	7.14	17140	8150	8990	2.10	8.29	19892	7750	12142	2.57	36.23		
EDZ			8150					7750					
SDZ	10.35	24833	8150	16683	3.05	9.46	22695	7750	14945	2.93	15.10		
STZ	6.49	15581	8150	7431	1.91	8.12	19484	7750	11734	2.51	59.31		
NTZ	7.55	18132	8150	9982	2.22	8.68	20841	7750	13091	2.69	29.19		
HZ	19.90	47755	8150	39605	5.86	21.64	51943	7750	44193	6.70	11.58		
CZ			8150					7750					
Average	8.08	19391	8150	11241	2.38	8.98	21562	7750	13812	2.78	22.87		

	Other cereals												
			Before			After							
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ	3.59	7002	7550	-548	0.93	4.12	8036	7350	686	1.09	-225.03		
NEDZ	4.33	8434	7550	884	1.12	5.23	10189	7350	2839	1.39	-7.48		
NDZ	5.32	10383	7550	2833	1.38	6.42	12516	7350	5166	1.70	-42.72		
CDZ	3.36	0	7550	-999	0.87	4.30	8389	7350	1039	1.14	471.43		
EDZ	4.00	7800	7550	250	1.03	4.80	9360	7350	2010	1.27	704.00		
SDZ	1.63	3179	7550	-4371	0.42	2.00	3900	7350	-3450	0.53	-21.06		
STZ	12.55	24471	7550	16921	3.24	12.96	25273	7350	17923	3.44	5.92		
NTZ	8.16	15916	7550	8366	2.11	9.17	17884	7350	10534	2.43			
HZ	8.81	17172	7550	9622	2.27	10.45	20373	7350	13023	2.77	35.35		
CZ			7550					7350					
Average	4.95	9643	7550	2093	1.28	6.28	12256	7350	4906	1.67	134.36		

						Redgra	ım				
			Before			After					
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ	3.13	17776	12500	5276	1.42	3.91	22183	11875	10308	1.87	101.38
NEDZ	3.83	21761	12500	9261	1.74	5.01	28438	11875	16563	2.39	81.37
NDZ	7.25	41142	12500	28642	3.29	8.49	48198	11875	36323	4.06	25.47
CDZ	3.49	19825	12500	7325	1.59	4.18	23709	11875	11834	2.00	85.50
EDZ	4.09	23216	12500	10716	1.86	4.58	25967	11875	14092	2.19	55.29
SDZ	8.67	49183	12500	36683	3.93	10.00	56750	11875	44875	4.78	22.33
STZ	4.33	24592	12500	12092	1.97	4.90	27808	11875	15933	2.34	31.76
NTZ			12500					11875			
HZ	7.71	43779	12500	31279	3.50	3.86	21926	11875	10051	1.85	-67.87
CZ			12500					11875			
Average	3.77	21402	12500	8902	1.71	4.47	25344	11875	13469	2.13	51.29

						Bengalg	ram				
			Before			After					
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ	6.00	27720	8180	19540	3.39			7770			
NEDZ	9.39	43371	8180	35191	5.30	9.82	45388	7770	37618	5.84	60.99
NDZ	13.82	63840	8180	55660	7.80	14.79	68310	7770	60540	8.79	9.84
CDZ	10.63	49107	8180	40927	6.00	12.16	56162	7770	48392	7.23	16.94
EDZ	10.00	46200	8180	38020	5.65	14.00	64680	7770	56910	8.32	49.68
SDZ			8180					7770			
STZ	20.00	92400	8180	84220	11.30	22.00	101640	7770	93870	13.08	11.46
NTZ			8180					7770			
HZ			8180		-			7770			
CZ			8180					7770			
Average	8.24	38077	8180	29897	4.65	11.56	53386	7770	45616	6.87	52.58

Zone						Blackgram							
			Before			After							
	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ			8100					7770					
NEDZ	2.19	12268	8100	4168	1.51	3.16	17696	7770	9926	2.28	188.37		
NDZ	5.05	28287	8100	20187	3.49	6.11	34232	7770	26462	4.41	31.31		
CDZ	12.00	67200	8100	59100	8.30	13.00	72800	7770	65030	9.37	10.03		
EDZ			8100					7770					
SDZ			8100					7770					
STZ			8100					7770					
NTZ	5.59	31294	8100	23194	3.86	6.99	39118	7770	31348	5.03	35.15		
HZ	6.33	35467	8100	27367	4.38	7.67	42933	7770	35163	5.53	28.49		
CZ			8100					7770					
Average	3.15	17622	8100	9522	2.18	4.57	25612	7770	17842	3.30	87.37		

						Greengram							
Zone			Before			After							
	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ	1.93	13452	7500	5952	1.79	2.70	18833	7125	11708	2.64	101.06		
NEDZ	2.59	18100	7500	10600	2.41	3.55	24759	7125	17634	3.47	62.95		
NDZ	4.08	28459	7500	20959	3.79	5.28	36818	7125	29693	5.17	52.43		
CDZ	7.32	51044	7500	43544	6.81	7.90	55071	7125	47946	7.73	10.25		
EDZ			7500					7125					
SDZ	2.49	17348	7500	9848	2.31	2.99	20860	7125	13735	2.93	49.86		
STZ	2.00	13950	7500	6450	1.86	3.00	20925	7125	13800	2.94	113.95		
NTZ	5.30	36983	7500	29483	4.93	6.68	46564	7125	39439	6.54	33.77		
HZ	5.38	37491	7500	29991	5.00	6.38	44466	7125	37341	6.24	24.51		
CZ			7500					7125					
Average	3.29	22926	7500	15426	3.06	4.16	29047	7125	21922	4.08	42.11		

Zone	Other Pulses													
	Before						After							
	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns			
NETZ			7850					7460						
NEDZ			7850					7460						
NDZ	5.60	19880	7850	12030	2.53	6.72	23871	7460	16411	3.20	37.31			
CDZ	3.11	11027	7850	3177	1.40	4.18	14821	7460	7361	1.99	127.32			
EDZ	6.07	21541	7850	13691	2.74	7.62	27038	7460	19578	3.62	49.65			
SDZ	3.01	10698	7850	2848	1.36	3.63	12885	7460	5425	1.73	104.07			
STZ	18.37	65206	7850	57356	8.31	14.81	52589	7460	45129	7.05	49.09			
NTZ	5.90	20938	7850	13088	2.67	7.22	25625	7460	18165	3.43	38.80			
HZ	14.76	52391	7850	44541	6.67	16.45	58403	7460	50943	7.83	14.37			
CZ			7850					7460						
Average	8.10	28746	7850	20896	3.66	9.51	33775	7460	26315	4.53	25.93			

Zone	Groundnut												
			Before			After							
	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns		
NETZ			16240					15430					
NEDZ	7.81	38193	16240	21950	2.35	9.22	45084	15430	29651	2.92	29.52		
NDZ	11.09	54230	16240	37983	3.34	12.59	61588	15430	46150	3.99	23.38		
CDZ	5.99	29268	16240	13016	1.80	6.28	30719	15430	15278	1.99	17.86		
EDZ	16.04	78412	16240	62158	4.82	14.74	72098	15430	56654	4.67	-8.47		
SDZ	6.81	33313	16240	17056	2.05	8.63	42176	15430	26729	2.73	108.46		
STZ	16.67	81500	16240	65239	5.01	14.87	72715	15430	57264	4.71	-12.22		
NTZ	6.70	32775	16240	16513	2.02	8.16	39888	15430	24435	2.58	-145.69		
HZ	11.21	54808	16240	38543	3.37	12.45	60885	15430	45430	3.94	17.87		
CZ	12.87	62927	16240	46661	3.87	13.56	66312	15430	50856	4.29	8.99		
Average	9.66	47246	16240	31006	2.91	10.79	52773	15430	37343	3.42	20.44		

						Sunflov	ver				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			8350					7940			
NEDZ	7.91	42614	8350	34264	5.10	9.27	49951	7940	42008	6.29	31.36
NDZ	6.02	32437	8350	24087	3.88	7.24	39004	7940	31056	4.91	27.41
CDZ	4.31	23198	8350	14848	2.78	5.06	27239	7940	19288	3.43	-567.21
EDZ	0.00	0	8350	-8350	0.00			7940			
SDZ			8350					7940			
STZ			8350					7940			
NTZ	6.47	34880	8350	26530	4.18	7.89	42537	7940	34574	5.34	30.32
HZ			8350					7940			
CZ			8350					7940			
Average	6.13	33055	8350	24705	3.96	6.90	37155	7940	29215	4.68	18.26

						Sesamı	ım				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			6750					6410	0		
NEDZ	1.50	9374	6750	2624	1.39	1.60	9998	6410	3588	1.56	36.78
NDZ	0.00	0	6750					6410			
CDZ			6750					6410			
EDZ			6750					6410			
SDZ	1.25	7811	6750	1061	1.16	1.35	8436	6410	2026	1.32	90.92
STZ			6750					6410			
NTZ			6750					6410			
HZ			6750		_			6410			
CZ			6750					6410			
Average	0.40	2529	6750	-4221	0.37	1.53	9552	6410	3142	1.49	174.00

						Casto	r				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			6500					6175			
NEDZ			6500					6175			
NDZ	6.00	24000	6500	17500	3.69	8.00	32000	6175	25825	5.18	47.57
CDZ			6500					6175			
EDZ			6500					6175			
SDZ			6500					6175			
STZ			6500					6175			
NTZ			6500					6175			
HZ			6500					6175			
CZ			6500					6175			
Average	6.00	24000	6500	17500	3.69	8.00	32000	6175	25825	5.18	47.57

						Soybea	an				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ	5.22	17746	9500	8246	1.87	6.51	22113	9050	13063	2.44	58.42
NEDZ	6.14	20880	9500	11380	2.20	5.33	18128	9050	9078	2.00	-20.23
NDZ	5.66	19252	9500	9752	2.03	8.66	29427	9050	20377	3.25	114.93
CDZ			9500					9050			
EDZ			9500					9050			
SDZ			9500					9050			
STZ			9500					9050			
NTZ	6.30	21411	9500	11911	2.25	7.01	23814	9050	14764	2.63	19.92
HZ	9.31	31653	9500	22153	3.33	10.69	36327	9050	27277	4.01	23.13
CZ			9500					9050			
Average	6.36	21611	9500	12111	2.27	7.76	26375	9050	17325	2.91	43.04

					(Other Oil	seeds				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ	0		5750					5460			
NEDZ	1.75	6125	5750	375	1.07	1.67	5833	5460	373	1.07	-0.44
NDZ	2.00	7000	5750	1250	1.22	2.50	8750	5460	3290	1.60	163.20
CDZ			5750					5460			
EDZ			5750					5460			
SDZ			5750					5460			
STZ			5750					5460			
NTZ			5750					5460			
HZ			5750					5460			
CZ			5750					5460			
Average	1.83	6417	5750	667	1.12	1.88	6563	5460	1103	1.20	65.38

					(Cotton					
_]	Before					After			
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			17770					16880			
NEDZ	7.83	40304	17770	22534	2.27	9.01	46380	16880	29500	2.75	86.96
NDZ	7.13	36737	17770	18967	2.07	8.28	42630	16880	25750	2.53	77.20
CDZ	8.14	41945	17770	24175	2.36	9.33	48036	16880	31156	2.85	29.63
EDZ			17770					16880			
SDZ			17770					16880			
STZ			17770					16880			
NTZ	10.74	55288	17770	37518	3.11	9.79	50419	16880	33539	2.99	-14.91
HZ	8.00	41200	17770	23430	2.32	10.00	51500	16880	34620	3.05	47.76
CZ			17770					16880			
Average	9.37	48280	17770	30510	2.72	10.27	52908	16880	36028	3.13	18.09
Zone					Su	garcane					

		Befo	ore					A	After		
	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ	487.50	146250	34250	112000	4.27	528.77	158630.1	32540	126090 .137	4.87	12.58
NEDZ	266.67	80000	34250	45750	2.34	375.00	112500	32540	79960	3.46	74.78
NDZ	448.91	134673	34250	100423	3.93	496.87	149062.2	32540	116522. 212	4.58	18.55
CDZ	76.67	23000	34250	-11250	0.67	90.00	27000	32540	-5540	0.83	-50.76
EDZ	385.23	115568	34250	81318	3.37	423.54	127062.5	32540	94522.5	3.90	16.05
SDZ	446.08	133823	34250	99573	3.91	470.85	141254.9	32540	108714. 906	4.34	8.56
STZ	493.33	148000	34250	113750	4.32	500.50	150150	32540	117610	4.61	3.39
NTZ	649.21	194763	34250	160513	5.69	751.29	225387.6	32540	192847. 56	6.93	20.14
HZ	433.10	#DIV/0!	34250	95680	3.79	482.39	144718.5	32540	112178. 477	4.45	17.24
CZ	149.17	44750	34250	10500	1.31	149.00	44700	32540	12160	1.37	15.81
Average	457.03	137109	34250	102859	4.00	493.26	147979	32540	115439	4.55	12.23

						Tobac	со				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			20750					19750			
NEDZ			20750					19750			
NDZ			20750					19750			
CDZ			20750					19750			
EDZ			20750					19750			
SDZ			20750					19750			
STZ	5.10	76498	20750	55748	3.69	5.72	85824	19750	66074	4.35	18.52
NTZ			20750					19750			
HZ			20750					19750			
CZ			20750					19750			
Average	5.10	76498	20750	55748	3.69	5.72	85824	19750	66074	4.35	18.52

						Mulb	erry				
			Before					Aft	er		
Zone	Produ ctivity	Gross returns	Cost of cultivation	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ											
NEDZ	1.00	29500	15000	14500	1.97						
NDZ											
CDZ											
EDZ	2.37	70050	15000	55050	4.67	2.89	85342.33	14250	71092. 3337	5.99	29.14
SDZ	1.29	38176.47	15000	23176. 47059	2.55	1.35	39747.37	14250	25497. 3684	2.79	10.01
STZ											
NTZ											
HZ											
CZ											
Average	2.28	67314	15000	52314	4.49	2.77	81715	14250	67465	5.73	28.96

					Hor	ticulture	Crops				
			Before					Afte	r		
Zone	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	Produ ctivity	Gross returns	Cost of cultivation /Ac	Net income /Ac	B:C ratio	% increase in net returns
NETZ			28800					27360			
NEDZ	54.65	306061.5	28800	277262	10.63	88.35	494753	27360	467389	18.08	24.04
NDZ	36.58	204823.9	28800	176024	7.11	37.02	207304	27360	179937	7.57	11.07
CDZ	16.33	91429.55	28800	62630	3.17	19.27	107935	27360	80564	3.94	33.44
EDZ	49.19	275452.1	28800	246652	9.56	51.40	287817	27360	260443	10.51	5.89
SDZ	10.61	59421.95	28800	30622	2.06	11.95	66941	27360	39564	2.45	30.46
STZ	24.02	134520.5	28800	105720	4.67	25.22	141223	27360	113843	5.16	28.36
NTZ	62.97	352641.2	28800	323841	12.24	70.65	395654	27360	368271	14.45	14.47
HZ	22.91	128293.3	28800	99493	4.45	23.15	129655	27360	102270	4.73	-90.56
CZ	11.89	66556.67	28800	37757	2.31	12.51	70034	27360	42648	2.56	12.56
Average	35.30	197706	28800	168906	6.86	38.62	216253	27388	188865	7.90	11.82

ANNEXURE XV: Service Provider - wise productivity and crop - wise net returns and C:B ratio

Productivity in qtls/ac, amount in Rupees

						Paddy					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns
ISAP	3.00	6000	20850	-14850	0.29	3.31	6625	19800	-13175	0.33	-11.28
John Deer	21.67	43348	20850	22498	2.08	22.24	44474	19800	24674	2.25	17.63
KALA	23.00	46000	20850	25150	2.21	29.67	59333	19800	39533	3.00	57.19
M & M	20.01	40028	20850	19178	1.92	21.51	43012	19800	23212	2.17	21.77
SKDRD	25.22	50448	20850	29598	2.42	26.30	52598	19800	32798	2.66	10.01
VST	20.22	40447	20850	19597	1.94	20.80	41593	19805	21786	2.10	-35.09
Average	21.12	42238	20850	21388	2.03	22.23	44454	19800	24654	2.25	15.27

						Ragi								
			Before					After						
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns			
ISAP	0	0	16300	0	0	0	0	16150	0	0	0			
John Deer	8.94	25892	16300	9592	1.59	10.46	30272	16150	14122	1.87	247.00			
KALA			16300					16150						
M & M	7.75	22422	16300	6122	1.38	8.62	24954	16150	8804	1.55	47.50			
SKDRD	7.89	22829	16300	6529	1.40	9.14	26472	16150	10322	1.64	180.08			
VST	6.69	19375	16300	3075	1.19	7.87	22798	16150	6648	1.41	-258.11			
Average	6.92	20028	16300	3728	1.23	8.53	24701	16150	8551	1.53	129.40			

						Maize					
Service Provider ISAP John Deer]	Before					After			
	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns
ISAP	0	0	16250	0	0	0	0	15440	0	0	0
John Deer	12.82	25006	16250	8756	1.54	15.44	30102	15440	14662	1.95	-97.14
KALA			16250					15440			
M & M	8.12	15834	16250	-416	0.97	9.26	18050	15440	2610	1.17	546.32
SKDRD	12.97	25294	16250	9044	1.56	14.09	27484	15440	12044	1.78	-206.03
VST	9.73	18975	16250	2725	1.17	12.19	23761	15440	8321	1.54	3896.97
Average	13.10	25548	16250	9298	1.57	14.24	27765	15440	12325	1.80	32.56

						Jowar					
]	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns
ISAP	2	4800	8150	-3350	0.59	3.30	7920	7750	170	1.02	-105.07
John Deer	5.25	12589	8150	4439	1.54	5.90	14152	7750	6402	1.83	53.70
KALA	5.33	12800	8150	4650	1.57	5.69	13656	7750	5906	1.76	27.02
M & M	6.34	15224	8150	7074	1.87	7.04	16893	7750	9143	2.18	42.09
SKDRD	10.93	26234	8150	18084	3.22	12.03	28883	7750	21133	3.73	30.75
VST	7.93	19022	8150	10872	2.33	9.15	21956	7750	14206	2.83	30.66
Average	8.08	19391	8150	11241	2.38	8.98	21562	7750	13812	2.78	22.87

					C	Other cereals						
Service Provider ISAP John Deer KALA			Before					After				
	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns	
ISAP	6.25	12188	7550	4638	2	7.25	14138	7350	6788	1.92	46.36	
John Deer	6.51	12688	7550	5138	2	7.24	14117	7350	6767	1.92	251.31	
KALA			7550					7350				
M & M	2.88	5626	7550	-1924	1	4.24	8265	7350	915	1.12	-173.66	
SKDRD	7.65	14922	7550	7372	2	8.70	16974	7350	9624	2.31	10.98	
VST	3.63	7072	7550	-478	1	4.06	7926	7350	576	1.08	326.63	
Average	4.95	9643	7550	2093	1	6.28	12256	7350	4906	1.67	134.36	

						Redgram					
		Ве	efore					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/Ac	B:C ratio	% increase in net returns
ISAP	3.16	17951	12500	5451	1.44	4.29	24366	11875	12491	2.05	131.04
John Deer	8.69	49318	12500	36818	3.95	9.98	56615	11875	44740	4.77	2.18
KALA	7.05	40002	12500	27502	3.20	7.09	40264	11875	28389	3.39	3.23
M & M	3.98	22595	12500	10095	1.81	4.52	25640	11875	13765	2.16	42.56
SKDRD	5.12	29058	12500	16558	2.32	5.47	31043	11875	19168	2.61	50.85
VST	4.10	23261	12500	10761	1.86	5.10	28915	11875	17040	2.43	59.27
Average	3.77	21402	12500	8902	1.71	4.47	25344	11875	13469	2.13	51.29

					I	Bengalgram					
		_	Before		ı			After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	0.00	0	8180	0	0	0	0	7770	0	0	0
John Deer			8180					7770			
KALA			8180					7770			
M & M	6.93	31994	8180	23814	3.91	10.10	46671	7770	38901	6.01	81.78
SKDRD	14.07	65022	8180	56842	7.95	14.88	68760	7770	60990	8.85	10.02
VST	12.53	57866	8180	49686	7.07	14.91	68896	7770	61126	8.87	23.03
Average	8.24	38077	8180	29897	4.65	11.56	53386	7770	45616	6.87	52.58

						Blackgram					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	2.54	14215	8100	6115	1.75	3.36	18836	7770	11066	2.42	80.96
John Deer			8100					7770			
KALA			8100					7770			
M & M	1.84	10320	8100	2220	1.27	2.96	16557	7770	8787	2.13	295.79
SKDRD	5.57	31214	8100	23114	3.85	6.85	38364	7770	30594	4.94	32.73
VST	8.65	48447	8100	40347	5.98	9.66	54112	7770	46342	6.96	19.05
Average	3.15	17622	8100	9522	2.18	4.57	25612	7770	17842	3.30	87.37

						Greengram					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	2.38	16610	7500	9110	2.21	3.35	23337	7125	16212	3.28	71.43
John Deer	2.27	15852	7500	8352	2.11	3.27	22827	7125	15702	3.20	88.00
KALA			7500					7125			
M & M	2.07	14446	7500	6946	1.93	2.95	20590	7125	13465	2.89	103.27
SKDRD	5.38	37527	7500	30027	5.00	6.64	46321	7125	39196	6.50	30.08
VST	4.61	32182	7500	24682	4.29	4.72	32950	7125	25825	4.62	11.10
Average	3.29	22926	7500	15426	3.06	4.16	29047	7125	21922	4.08	42.11

						Other Pulses					
Service Provider ISAP John Deer KALA M & M SKDRD VST			Before					After			
	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	0.00	0	7850	0	0	0	0	7460	0	0	0
John Deer			7850					7460			
KALA			7850					7460			
M & M	3.15	11200	7850	3350	1.43	4.18	14837	7460	7377	1.99	119.71
SKDRD	10.61	37673	7850	29823	4.80	10.56	37487	7460	30027	5.03	53.99
VST	3.85	13656	7850	5806	1.74	4.74	16811	7460	9351	2.25	68.68
Average	8.10	28746	7850	20896	3.66	9.51	33775	7460	26315	4.53	25.93

					G	Froundnut					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	7.03	34383	16240	18141	2.12	7.25	35453	15430	20021	2.30	10.36
John Deer	9.13	44658	16240	28404	2.75	10.18	49780	15430	34337	3.22	-96.17
KALA			16240					15430			
M & M	10.06	49179	16240	32934	3.03	10.91	53353	15430	37918	3.46	16.32
SKDRD	11.80	57719	16240	41462	3.55	13.54	66198	15430	50752	4.29	25.05
VST	8.72	42626	16240	26372	2.62	6.96	34022	15430	18579	2.20	38.15
Average	9.66	47246	16240	31006	2.91	10.79	52773	15430	37343	3.42	20.44

						Sunflower					
		_	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	5.00	26940	8350	18590	3.23	6.67	35920	7940	27978	4.52	50.50
John Deer	5.18	27920	8350	19570	3.34	5.48	29506	7940	21561	3.71	10.17
KALA			8350					7940			
M & M	6.32	34029	8350	25679	4.08	9.59	51691	7940	43744	6.50	70.35
SKDRD	7.59	40892	8350	32542	4.90	8.48	45715	7940	37763	5.75	16.47
VST	2.71	14599	8350	6249	1.75	4.91	26478	7940	18528	3.33	-564.32
Average	6.13	33055	8350	24705	3.96	6.90	37155	7940	29215	4.68	18.26

						Sesamum					
+			Before					After			
	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	0.00	0	6750	0	0.00	0.00	0	6410	0	0	0
John Deer			6750					6410			
KALA			6750					6410			
M & M	0.75	4687	6750	2624	1.39	1.60	9998	6410	3588	1.56	36.78
SKDRD			6750					6410			
VST	1.25	7811	6750	1061	1.16	1.35	8436	6410	2026	1.32	90.92
Average	0.40	2529	6750	-4221	0.37	1.53	9552	6410	3142	1.49	174.00

						Castor					
]	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	0		6500	0	0	0	0	6175	0	0	0
John Deer			6500					6175			
KALA			6500					6175			
M & M			6500					6175			
SKDRD	6	24000	6500	17500	3.69	8.00	32000	6175	25825	5.18	47.57
VST			6500					6175			
Average	6	24000	6500	17500	3.69	8.00	32000	6175	25825	5.18	47.57

						Soybean					
			Before		_			After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	5.22	17746	9500	8246	1.87	6.51	22113	9050	13063	2.44	58.42
John Deer	5.30	18020	9500	8520	1.90	5.31	18060	9050	9010	2.00	5.76
KALA			9500					9050			
M & M	6.14	20880	9500	11380	2.20	5.33	18128	9050	9078	2.00	-20.23
SKDRD	7.35	24987	9500	15487	2.63	9.94	33783	9050	24733	3.73	83.47
VST	5.88	19999	9500	10499	2.11	6.88	23398	9050	14348	2.59	36.66
Average	6.36	21611	9500	12111	2.27	7.76	26375	9050	17325	2.91	43.04

					O	ther Oilseeds					
]	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP			5750					5460			
John Deer			5750					5460			
KALA			5750					5460			
M & M	1.75	6125	5750	375	1.07	1.67	5833	5460	373	1.07	-0.44
SKDRD	2.00	7000	5750	1250	1.22	2.50	8750	5460	3290	1.60	163.20
VST			5750					5460			
Average	1.83	6417	5750	667	1.12	1.88	6563	5460	1103	1.20	65.38

						Cotton					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP	3.96	20402	17770	2632	1.15	4.87	25085	16880	8205	1.49	211.77
John Deer	6.74	34696	17770	16926	1.95	6.36	32739	16880	15859	1.94	74.68
KALA								16880			
M & M	9.70	49958	17770	32188	2.81	10.56	54404	16880	37524	3.22	16.48
SKDRD	9.00	46363	17770	28593	2.61	10.29	53011	16880	36131	3.14	30.30
VST	8.79	45266	17770	27496	2.55	9.90	51010	16880	34130	3.02	24.13
Average	9.37	48280	17770	30510	2.72	10.27	52908	16880	36028	3.13	18.09

					,	Sugarcane					
]	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP			34250					32540			
John Deer	301.76	90529	34250	56279	2.64	360.19	108058	32540	75518	3.32	34.18
KALA	202.08	60625	34250	26375	1.77	213.25	63974	32540	31434	1.97	19.18
M & M	442.15	132646	34250	98396	3.87	506.42	151927	32540	119387	4.67	28.74
SKDRD	438.19	131710	34250	97206	3.84	471.63	141488	32540	108948	4.35	11.95
VST	392.28	117683	34250	83433	3.44	430.11	129034	32540	96494	3.97	-2.07
Average	457.03	137109	34250	102859	4.00	493.26	147979	32540	115439	4.55	12.23

						Tobacco					
]	Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP			20750					19750			
John Deer			20750					19750			
KALA			20750					19750			
M & M	5.10	76498	20750	55748	3.69	5.72	85824	19750	66074	4.35	18.52
SKDRD			20750					19750			
VST			20750					19750			
Average	5.10	76498	20750	55748	3.69	5.72	85824	19750	66074	4.35	18.52

						Mulberry					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP											
John Deer	1.44	42480	15000	27480	2.83	1.69	49855	14250	35605	3.50	29.57
KALA											
M & M	1.00	29500	15000	14500	1.97						
SKDRD	2.29	67555	15000	52555	4.50	3.08	90860	14250	76610	6.38	45.77
VST	1.87	55165	15000	40165	3.68	2.08	61360	14250	47110	4.31	17.29
Average	1.88	53100	15000	38100	3.54	2.41	67350	14250	53100	4.73	30.88

					Hort	ticulture Crops					
			Before					After			
Service Provider	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	Productivity	Gross returns	Cost of cultivation /Ac	Net income/ Ac	B:C ratio	% increase in net returns
ISAP			28800	0	0	0	0	27360			
John Deer	21.22	118839	28800	90039	4.13	23.10	129334	27360	101959	4.72	-7.19
KALA			28800	0	0.00	0.00	0	27360			
M & M	32.97	184611	28800	124649	6.41	52.50	293992	27360	266620	10.74	35.84
SKDRD	41.74	233757	28800	204957	8.12	43.06	241132	27360	213755	8.81	5.16
VST	23.34	130717	28800	101917	4.54	24.96	139799	27360	112423	5.11	22.62
Average	35.30	197706	28800	168906	6.86	38.62	216253	27388	188865	7.90	11.82

ANNEXURE XVI: Category - wise and crop-wise productivity and net returns and B: C ratio

Area in acres, production in qtls, Productivity in qtls/ac, amount in Rupees

								Paddy							
				Before								After			
Category	Area	Produ ction	Product ivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns
Marginal Farmers	140.2	3040	21.68	43367	20850	22517	2.08	158.3	3792	23.95	47909	19800	28109	2.42	24.84
Small Farmers	257.45	5318	20.66	41313	20850	20463	1.98	321.3	7031	21.89	43773	19800	23973	2.21	17.15
Medium Farmers	184.45	4018	21.78	43567	20850	22717	2.09	263.7	6178	23.43	46865	19800	27065	2.37	19.14
SC Farmers	375.6	8349	22.23	44457	20850	23607	2.13	503.6	11884	23.60	47196	19800	27396	2.38	16.05
ST Farmers	413.3	9037	21.87	43731	20850	22881	2.10	624.4	14627	23.43	46854	19800	27054	2.37	18.24
OBC Farmers	641.4	12810	19.97	39944	20850	19094	1.92	702.5	14621	20.81	41626	19800	21826	2.10	14.31
Women Farmers	72.4	1457	20.12	40249	20850	19399	1.93	117.6	1686	14.33	28665	19800	8865	1.45	-54.30
State Mean	2084.8	44029	21.12	42238	20850	21388	2.03	2691.3	59819	22.23	44454	19800	24654	2.25	15.27

								Maize							
				Before							A	fter			
Category	Area	Produ ction	Produc tivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produc tion	Produc tivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns
Marginal Farmers	185.2	2196	11.85	23117	16250	6867	1.42	187.5	2704	14.42	28122	15440	12682	1.82	84.68
Small Farmers	288.7	3643	12.62	24606	16250	8356	1.51	338.2	4508	13.33	25989	15440	10549	1.68	26.24
Medium Farmers	145.6	1629	11.18	21810	16250	5560	1.34	168.7	1994	11.81	23039	15440	7599	1.49	36.66
SC Farmers	217.6	2709	12.45	24280	16250	8030	1.49	249.8	3432	13.74	26787	15440	11347	1.73	41.31
ST Farmers	254.4	3509	13.79	26898	16250	10648	1.66	331.9	4614	13.90	27106	15440	11666	1.76	9.57
OBC Farmers	539.5	7736	14.34	27961	16250	11711	1.72	600.5	9536	15.88	30967	15440	15527	2.01	32.58
Women Farmers	61.1	747	12.23	23852	16250	7602	1.47	66.1	875	13.24	25810	15440	10370	1.67	36.41
State Mean	1692.1	22169	13.10	25548	16250	9298	1.57	1942.7	27661	14.24	27765	15440	12325	1.80	32.56

Category - wise and crop-wise productivity and net returns and B: C ratio

								Jo	war						
				Before								After			
Category	Area	Produ ction	Produc tivity	Gross returns	Cost of cultiva tion	Net income	B:C ratio	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns
Marginal Farmers	58.2	879	15.10	36247	8150	28097	4.45	79.8	1310	16.42	39398	7750	31648	5.08	12.64
Small Farmers	135.7	1395	10.28	24665	8150	16515	3.03	168.1	2057	12.23	29364	7750	21614	3.79	30.87
Medium Farmers	77.6	530	6.83	16392	8150	8242	2.01	113.6	858	7.55	18127	7750	10377	2.34	25.90
SC Farmers	124.4	909	7.30	17527	8150	9377	2.15	175.2	1281	7.31	17548	7750	9798	2.26	4.49
ST Farmers	105.2	807	7.67	18411	8150	10261	2.26	162.2	1219	7.52	18037	7750	10287	2.33	0.26
OBC Farmers	182.4	998	5.47	13125	8150	4975	1.61	174.6	1113	6.37	15293	7750	7543	1.97	51.63
Women Farmers	4.3	41	9.42	22605	8150	14455	2.77	4.3	49	11.40	27349	7750	19599	3.53	35.59
State Mean	687.8	5557	8.08	19391	8150	11241	2.38	877.8	7886	8.98	21562	7750	13812	2.78	22.87

								Redgram							
				Before							A	After			
Category	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns
Marginal Farmers	73.7	345	4.68	26532	12500	14032	2.12	76.9	448	5.82	33039	11875	21164	2.78	50.83
Small Farmers	337.6	1296	3.84	21781	12500	9281	1.74	364.8	1758	4.82	27344	11875	15469	2.30	66.68
Medium Farmers	315.7	1114	3.53	20025	12500	7525	1.60	334.5	1592	4.76	27009	11875	15134	2.27	101.11
SC Farmers	539.4	2007	3.72	21116	12500	8616	1.69	791.4	2956	3.74	21197	11875	9322	1.79	8.20
ST Farmers	433.4	1697	3.92	22221	12500	9721	1.78	533.2	2525	4.74	26874	11875	14999	2.26	54.30
OBC Farmers	906.5	3378	3.73	21147	12500	8647	1.69	1002.3	4583	4.57	25950	11875	14075	2.19	62.77
Women Farmers	22.1	77	3.46	19626	12500	7126	1.57	22.1	96	4.32	24501	11875	12626	2.06	77.17
State Mean	2628.5	9913	3.77	21402	12500	8902	1.71	3125.2	13957	4.47	25344	11875	13469	2.13	51.29

Category - wise and crop-wise productivity and net returns and B: C ratio

								Bengalgi	ram						
				Before							A	fter			
Category	Area	Produc tion	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns
Marginal Farmers	1.0	4	4.00	18480	8180	10300	2.26	1.0	6	6.00	27720	7770	19950	3.57	93.69
Small Farmers	6.0	51	8.50	39270	8180	31090	4.80	6.0	62	10.33	47740	7770	39970	6.14	28.56
Medium Farmers	6.0	82	13.67	63140	8180	54960	7.72	8.0	129	16.13	74498	7770	66728	9.59	21.41
SC Farmers	5.0	61	12.20	56364	8180	48184	6.89	7.0	98	14.00	64680	7770	56910	8.32	18.11
ST Farmers	17.0	172	10.12	46744	8180	38564	5.71	18.2	228	12.53	57877	7770	50107	7.45	29.93
OBC Farmers	61.0	421	6.90	31901	8180	23721	3.90	50.0	519	10.39	47983	7770	40213	6.18	69.53
Women Farmers	0.0	0	0.00	0	8180	0	0.00	0.0	0	0.00	0	7770	0	0.00	0.00
State Mean	96.0	791	8.24	38077	8180	29897	4.65	90.2	1042	11.56	53386	7770	45616	6.87	52.58

Category	Groundnut																
	Before								After								
	Area	Produ ction	Produc tivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns		
Marginal Farmers	56.37	495	8.77	42897	16240	26657	2.64	67.7	630	9.31	45525	15430	30095	2.95	12.90		
Small Farmers	146.15	1271	8.70	42533	16240	26293	2.62	173.8	1634	9.40	45987	15430	30557	2.98	16.22		
Medium Farmers	116.2	1015	8.73	42714	16240	26474	2.63	137.0	1334	9.74	47615	15430	32185	3.09	21.57		
SC Farmers	100.2	1180	11.78	57597	16240	41357	3.55	135.0	1827	13.53	66178	15430	50748	4.29	22.71		
ST Farmers	105.4	1214	11.51	56300	16240	40060	3.47	145.2	1771	12.20	59643	15430	44213	3.87	10.37		
OBC Farmers	342.87	3215	9.38	45852	16240	29612	2.82	390.6	4139	10.60	51815	15430	36385	3.36	22.87		
Women Farmers	37.25	349	9.37	45815	16240	29575	2.82	44.3	466	10.53	51497	15430	36067	3.34	21.95		
State Mean	904.44	8738	9.66	47246	16240	31006	2.91	1093.4	11801	10.79	52773	15430	37343	3.42	20.44		

Category	Cotton																
	Before								After								
	Area	Produ ction	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produ ction	Produc tivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns		
Marginal Farmers	15.2	215	14.14	72845	17770	55075	4.10	19.2	340	17.71	91198	16880	74318	5.40	34.94		
Small Farmers	71.1	725	10.19	52478	17770	34708	2.95	89.5	959.6	10.72	55217	16880	38337	3.27	10.46		
Medium Farmers	141.0	1445	10.25	52778	17770	35008	2.97	143.0	1473	10.30	53049	16880	36169	3.14	3.31		
SC Farmers	63.0	519	8.24	42426	17770	24656	2.39	87.0	765	8.79	45284	16880	28404	2.68	15.20		
ST Farmers	109.0	930	8.53	43940	17770	26170	2.47	180.0	1830	10.17	52358	16880	35478	3.10	35.57		
OBC Farmers	176.2	1556	8.83	45479	17770	27709	2.56	202.7	2044. 2	10.08	51937	16880	35057	3.08	26.52		
Women Farmers	1.0	15	15.00	77250	17770	59480	4.35	2.0	20	10.00	51500	16880	34620	3.05	-41.80		
State Mean	576.5	5405	9.37	48280	17770	30510	2.72	723.4	7432	10.27	52908	16880	36028	3.13	18.09		

Category		Sugarcane															
	Before								After								
	Area	Produc tion	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produc tion	Produc tivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns		
Marginal Farmers	86.5	43546	503.42	151026	34250	116776	4.410	92.5	58309	630.37	189110	32540	156570	5.81	34.08		
Small Farmers	158.2	80190	506.89	152067	34250	117817	4.440	225.4	105835	469.54	140863	32540	108323	4.33	-8.06		
Medium Farmers	137.5	68200	496.00	148800	34250	114550	4.345	142.5	76840	539.23	161768	32540	129228	4.97	12.81		
SC Farmers	110.4	53015	480.21	144063	34250	109813	4.206	128.4	65602	510.92	153276	32540	120736	4.71	9.95		
ST Farmers	269.1	117500	436.64	130992	34250	96742	3.825	296.3	137247	463.2	138961	32540	106421	4.27	10.00		
OBC Farmers	617.8	269665	436.49	130948	34250	96698	3.823	653.2	318830	488.1	146431	32540	113891	4.50	17.78		
Women Farmers	53.0	22580	426.04	127811	34250	93561	3.732	62	26707	430.76	129227	32540	96687	3.97	3.34		
State Mean	1432.5	654696	457.03	137109	34250	102859	4.003	1600	789370	493.3	147979	32540	115439	4.55	12.23		

							Н	orticultur	e crops									
				Before				After										
Category	Area	Produc tion	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	Area	Produc tion	Produ ctivity	Gross returns	Cost of cultivation	Net income	B:C ratio	% increase in net returns			
Marginal Farmers	128.34	5546	43.21	241995	28800	213195	8.40	156.2	7501	48.01	268835	27360	241475	9.83	13.27			
Small Farmers	418.2	19721	47.16	264078	28800	235278	9.17	487.2	24415	50.11	280637	27361	253276	10.26	7.65			
Medium Farmers	205.3	9817	47.82	267783	28800	238983	9.30	239.3	12123	50.66	283695	27362	256333	10.37	7.26			
SC Farmers	373.7	10705	28.64	160411	28800	131611	5.57	456.0	13045	28.61	160197	27363	132834	5.85	0.93			
ST Farmers	358.97	13850	38.58	216066	28800	187266	7.50	457.2	20893	45.70	255926	27364	228562	9.35	22.05			
OBC Farmers	727.21	20123	27.67	154960	28800	126160	5.38	827.5	25202	30.45	170547	27365	143182	6.23	13.49			
Women Farmers	73.63	922	12.52	70093	28800	41293	2.43	79.0	1181	14.95	83706	27366	56340	3.06	36.44			
State Mean	2285.4	80683	35.30	197706	28800	168906	6.86	2702.5	104359	38.62	216253	27388	188865	7.90	11.82			

ANNEXURE XVII: List of equipment with CHSCs

	ಾ.ಆ.ಸೇ.ಕೇಂದ್ರದಲ್ಲಿ ಸಂಗ್ರಹಿಸಿರುವ ಕೃಷಿ ಯಂತ್ರೋಪಕರಣಗಳು
2.7	ನ್ನು ಕೇಂದ್ರದಲ್ಲಿ ಸಂಗ್ರಹಿಸಿಯ ಕೃಷಣೆ ಯಂತ್ರೋಪಕರಣದ ಹೆಸರು
ಕ್ರಸಂ.	ಯಂತ್ರೋಪಕರಣದ ಹಸರು
1.	ಟ್ರ್ಯಾಕ್ಷರ್
2.	ರ್ಟ್ಫ್ರೇಲರ್ /ಟ್ರಾಲಿ
3.	ಪವರ್ ಟಿಲ್ಲರ್
4.	ರೆಕ್ಕೆ ನೇಗಿಲು (M.B.Plough)
5.	ರೋಟಾವೇಟರ್
6.	ಡಿಸ್ಕ್ ನೇಗಿಲು (2 ಟೈನ್)
7.	ಡಿಸ್ಕ್ ಕುಂಟೆ (11 ಟೈನ್)
8.	ಕಲಿವೇಟರ್
9.	ಕಬ್ಬಿನ ಸ್ಟಬಲ್ ಶೇವರ್/ ಕಲ್ಟಿವೇಟರ್
10.	ಶವಲರ್ ಬ್ಲೇಡ್
11.	ಕೇಜ್ ಫ್ಲೀಲ್
12.	ಬೇಡ್ ಕುಂಟೆ
13.	ಲೇಸರ್ ಲೆವಲರ್
14.	ಬತ್ತದ ನಾಟಿ ಯಂತ್ರ
15.	ರಿಡರ್ / ಬೋದು ಸಾಲು ಬಿಡುವ ಯಂತ್ರ
16.	W = 000
17.	ರೋಟೋ ಟೆಲ್ ಡ್ರಿಲ್ (ಸಂಯುಕ್ತ ರೋಟಾವೀಪರ ಹಾಗು ಹತ್ತು
18.	
19.	ಲೋಗಿನ ಮೇಲೆ ಬಿತುವ ಯಂತ್ರ (ನಾಟಿ ಯಂತ್ರ) (Raised bed sowing indensity
20.	
21.	ಸುಡಿ ಮಾಡುವ ಯಂತ
22.	ಭಾ ಕರ್ ಚಾಲಿತ ಸಿಂಪರಣಾ ಯಂತ್ರ
23.	ಸ್ವರ್ ಟಿಲರ್ ಚಾಲಿತ ಸಿಂಪರಣಾ ಯಂತ್ರಿ
24	
25	ಬಹು ಬೆಳೆ ಒಕ್ಕಣೆ ಯಂತ್ರ
26	ಕಡ್ಡ್ ಕಾಯಿ ಕೀಳುವ ಯಂತ್ರ
27	ಕಡ್ಟ್ ಕಾಯಿ ಬಿಡಿಸುವ (ಒಕ್ಕಣೆ) ಯಂತ್ರ
	ಇಂಡಿದ್ ಭಾಲಿತ ಕಟಾಮ ಮಾಡುವ ಯಂತ್ರಿ
20	The start start with the control with the control of the control o
). ಬೇಲರ್ (ಭ <mark>ತ್ರದ ಹುಲ್ಲು ಉಂಡೆ ಮಾಡುವ ಯಂತ್ರ</mark>)
	Hand operated sprayer
1	2. Power weeder
100	3. Paddy reaper/harvester
	The state of the s
	Chart
	DI WOOD AND AND AND AND AND AND AND AND AND AN
1	Pit former Areca tree climber
	88. JCB 99. Cotton picking machine

CHSC Arabban

SKDRDP® - AGRICULTURE DEPARTMENT CHSC PROGRAM 2018-19

ARABHAVI CHSC GOKAK

	ANADHAVI CHOC GONAN	
3808	Tractor New Holland (55 HP)	610736
3809	Tractor New Holland (55 HP)	610736
3810	Tractor (Escorts Farmtrac-45)	547988
3811	M.B Plough (2 Bottom Reversible 35-50 H.P.)	63000
3812	M.B Plough (2 Bottom Reversible 35-50 H.P.)	63000
3813	Rotovator (36 Blade) (Shaktiman)	113750
3814	Rotovator (36 Blade) (Shaktiman)	113750
3815	Sugarcane Thrash Cutter(Skathiman)	253000
3816	Cultivator (9 Tyne Rijid Shaktiman)	32500
3817	Cultivator (9 Tyne Rijid Shaktiman)	32500
· 3818	Seed cum FertilzerDirl (9 Tyne regid type)	61000
3821	Furrow Opener (Shaktiman)	32000
3822	Disc Plough (Two Disc)	46000
3823	Disc Plough (Two Disc)	46000
	Power Tiller(VST-Tiller)	154800
6683	Power Tiller(VST Tiller)	154800
	VST Tracter Metsubishi 22HP	336000
	Sugar cane Malcher	230000
	Sugar cane Malcher	230000
	Duckfoot cultivater	32750
-	4 Stroke Spreyar	17600
	4 Stroke Spreyar	17500
	Rotavactor 22Hp	46000
7,666	Double pump leveler blade (Dujer)	95000
	Tractor (55 HP)	610735.3
	Cultivator 4 in 1	36000
10493	Single Reversible M.B Plough	53000
	Two Bottom Reversible M.B Plough	63000
	Furrow Opener Ridger	34500
	Rotavator 5 ft	104000
	Combine Harvester	1835000
11958	Sugarcane Thrash Cutter(Skathiman) (3729)	242000
	Mini Trailer 2016	106820
	Big Trailer 2016	160000
	Rotavater (3ft)	48000
	Tractor New Holland (50HP)	566891
139851	Sugarcane Strubble Shaver(UIN 4275)	0
100036	Nadakattina Automatic Seed Drill	77832.82
100259	Sugarcane Thrash Cutter(Shaktikissan)	240000
100572	M.B Plough (2 Bottom Reversible 35 50 HP)	63000
100572	Duckfoot Cultivater(5 Tyne)	31000

Gogi CHSC

Equipments in CHSC, Gogi, Shahapur taluk, Yadgir district

SI No	Equipment list	Qty	Rate
1	MB PLOUGH	2	450/hr
2	BLADE HARROW	2	400/hr
3	9TYNE CULTIVATOR	2	450/hr
4	5TYNE CULTIVATOR	2	450/hr
5	ROTAVATOR 6 FEET	1	900/hr
6	ROTAVATOR 5 FEET	2	800/hr
7	FULL CAGE WHEELS	2set	900/hr
8	Half cage wheel	2set	900/hr
9	MANUAL POWER SPREYAR	10	180/day
10	Seed cum FertilzerDirl (9 Tyne Spring type)	1	540/hr
11	Level blead	1	450/hr
12	Bund farmer	1	700/hr
13	Harvester	1	1800/hr
14	Plog leveler	1	500/hr
15	Puddeler	1	900/hr
16	Mobile shedder	1	800/hr
17	Slasher	1	400/acre
18	Power weeder	1	360/day

35	ಪ್ರಸ್ಥೆ ಸ್ಥಿಪಿ	Working	Working	Working	1 Working	1 Not working (Repairable)	Not working (Repairable)	Working	Non Repairable	Non Repairable	Working			
3(3)	ರ್ಜೀದಿ ಸಂಖ್ಯೆ	1402	UK002	UK001	i.	CI77	1402		2219	2218	3385			
CHRC	ರಶೀದಿ ದಿನಾಂಕ	10-01-17	10-02-17	10-02-17	:	91-11-61	10-01-17		19-11-16	19-11-16	16-09-16			
5125; CABC	ಬಾಡಿಗೆ ಆಧಾರಿತ ಸೇವಾಕೇಂದ್ರದ ಪಾಲು	9,716.00	133858	140039		80,400.00	8,175.00	1,500.00	64,990.00	28,250.00	00.000,6	475,928.00		
	मधकारत मध्यारम्	29,147.00	401,573.00	420,117:00	00000	241,200,00	24.526.00	4,500.00	194,970.00	84,750.00	27,000.00	1,427,783.00		
	ಉಪಕರಣದ ದರ	38,863.00	535,431.00	560,156.00	000000000000000000000000000000000000000	321,000,00	32,701.00	6,000.00	259,960.00	113,000.00	36,000.00	1,903,711.00		
	ಉಪಕರಣಗಳ ಸಂಖ್ಯೆ	1	-		c	7	-	1	0 -1			10		
	ಯಂತ್ರೋಪಕರಣದ ಹಸರು	2 Bottom MB Plough (Sri Sai Agro Industries)	Tractor JD 5042 D (John Deere)	Tractor JD 5045 D (John Deere)	Power Tiller 13 HP	(VST)	Spring Cultivator (Sri Sai Agro Industries)	Cage Wheel	Paddy Transplanter (VST)	Paddy Harvester (VST)	Sprayer 3 HP STT	2.83.0g	ತಿರಸ್ತಿ	
	(de N	-	2	т.	5	r	n	9	7	œ	6			

	/		CHSC Lodla	Jess Creeryn
0		Om Shree Manju	unathaya Namaha	
4			P Kudligere	
		Impleme	ent Details	
SL.no	Impleme ntationID	Implement Name	Implement Company	Rate
1	5381	Tractor(escort)	Escorts	509280.00
2	5382	Leveler plate and blade	Excel agri tech	22000.00
3	5383	Duck foot Cultivator (5 Tynes)	Excel agri tech	32250.00
4	5384	Rigid cultivater big(ST1)9 Tynes	Shimoga trailers and implements	31500.00
5	5385	M.B plough 2 pare(OM GANESH)	Shimoga trailers and implements	36000.00
6	5387	Cage wheel	Sri Lakshmi venkateshwara Enterprices	37000.00
7	5388	Diesel pump set 4 hp(GFL)	Varsha Associates	36000.00
8	5389	Diesel pump set 4 hp(GFL)	Varsha Associates	36000.00
9	5390	HTP sprayer	Varsha Associates	30000.00
10	5391	Diesel pump set 4 hp(GFL)	Varsha Associates	31200.00
11	5392	Diesel pump set 4 hp(GFL)	Varsha Associates	31200.00
12	5393	Brush Cutter(HONDA)	Varsha Associates	27900.00
13	5394	Brush Cutter(HONDA)	Varsha Associates	27900.00
14	5395	Paddy thresher 10hp(field marshal)(FA1	Varsha Associates	178000.00
15	5396	Digger (man handed)(MAKITA)	Keelambi	54000.00
16	5397	transplanter 4 row(FA12Z1P)	Keelambi	245000.00
17	5398	Arecunet deshker(SGM)	Keelambi	195000.00
13	5399	Back nack sprayer	Keelambi	2050.00
19	5400	Back nack sprayer	Keelambi	2050.00
20	5401	Back nack sprayer	Keelambi	2050.00
21	5402	Back nack sprayer	Keelambi	2050.00
22	5403	Batery sprayer(FORTUNE AGRO IMPEX)	Keelambi	5100.00
23	5404	Batery sprayer(FORTUNE AGRO IMPEX)	Keelambi	5100.00
24	5405	Power tiller 10/11 hp(VST TILLER TRAVTORS LTD)(130DI)	Sri Raja Agri Tech	154800.00
25	5406	Power tiller 10/11 hp(VST TILLER TRAVTORS LTD)(130DI)	Sri Raja Agri Tech	154800.00
26	5407	Tiller Accessories (Tiller trailer)	Sri Raja Agri Tech	54069.00
27	5408	Tiller Accessories (Tiller trailer)	Sri Raja Agri Tech	54069.00
28	5409	Tiller Accessories (Drum type cage whee	Sri Raja Agri Tech	4053.00
29	5410	Tiller Accessories (Drum type cage whee	Sri Raja Agri Tech	4053.00
30	5411	Tiller Accessories (Drum type cage whee		4053.00
31	5412	Tiller Accessories (Drum type cage whee		4053.00
32	5413	Tiller Accessories (Drum type cage when		5838.00
33	5414	Tiller Accessories (Drum type cage when		5838.00
34	5415	Tiller Accessories (Drum type cage when		5838.00
35	5416	Tiller Accessories (Drum type cage whe		5838.00
36	5417	Tiller Accessories (Tiller with Cultivator		6615.00
37	5418	Tiller Accessories (Tiller with Cultivator Tiller Accessories (Power tiller withM.B		6615.00

15 WF	14 Joh	13 Pac	12 1.8	Typ	11 Pos	Rot 10 Cha	9 HTI	8 11	7 Mir	Ma Ma 6 Eac	Dou 5 Plo	Cha 4 (Ku	3 50	2 45	1 42	SI No Equ
Wheel Weight Thei	Johan Deere Bumper 75 Kg	13 Paddy Planter	Č	Mulcher 1.8 meter Fixed Type Y Blades Leveller SRM	Post Hole digger	Rotavator length 180 Cm Chain Gear Drive 42 blade	HTP Sprayar	8 11 Dic Harrow	Spring Cultivator 9 Tyne Min of 35 HP	Two Disc Plough of Frame Made I Section 150X100 MM Channel Type with Each Disc 26" Dia 225 Kg	Double Bottom Reversible Plowh 35 Hp 450 Kg	Channel Type Blade arrow (Kunte) 160 kg Weight	50 HP Tractor	45 Hp Tractor	42 Hp Tractor	Equipment Name
	8			≤							1		1030	3739	Ka17-TD 1027	RC No
Knshna Agency	Krishna Agency	Ramesh And Company	Shivalingeswara enterprise		Shivalingeswara enterprise	Shivalingeswara enterprise	Varsha Enterprices	Varsha Associates	Varsha Associates	Varsha Associates	Varsha Associates	Varsha Associates	Johan Deere	Johan Deere	Johan Deere	Suppliers Name
DVG /55/16-17/213	DVG /SSI/16-1//213	021/2016-17	20160688		20160690	20160689	3983	5736	3983	3983	3983	3983	DA002	DA104	DA001	Bill No
1//03/201/	1//03/201/	28/03/2017	_		20160690 17/11/2016	17/11/2016	3983 25/02/2017	5736 20/03/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	27/11/2016	20/03/2018	27/11/2016	Date
2 0000		102			1 90000	1 113750	2 34407.585	2 57976	1 33744.08	1 52132.7	2 59905.21	1 21895.73	1 591882.81	1 561097.8	1 535474.28	Qty Unit Rate
OT/CT		. 11			90000	113750	68815.17	115952	33744.08	52132.7	119810.42	21895.73	591882.81	561097.8	535474.28	Invoice Value(Inclussive of Tax)
70701	-		172500		67500	85312.5	51611.378	86964	25308.06	39099.525	89857.815	16421.798	443912.11	420823.35	401605.71	Govt Stake GSK Stake
242	4615.5	270750	57500		22500	28437.5	17203.79	28988	8436.02	13033.18	29952.61	5473.933	147970.7	140274.5	133868.6	GSK Stake

ಕೃಷಿ ಇಲಾಖೆ ಕರ್ನಾಟಕ ಸರಕಾರ

ಶ್ರೀ ಕ್ಷೇತ್ರ ಧರ್ಮಸ್ಥಳ ಗ್ರಾಮಾಅಪ್ಪದ್ಧಿ ಯೋಜನೆ(೦.) ಥರ್ಮಸ್ಥಳ ಕೃತಿ ಉಪಕರಣಗಳ ಬಾಡಿಗೆ ಸೇವಾ ಕೇಂದ್ರ ಕಸಬಾ ಹೋಬಳ ಕೃತಿ ಯಂತ್ರದಾರೆ ಕೇಂದ್ರದಲ್ಲ ಲಭ್ಯನಿರುವ ಯಂತ್ರೋಪಕರಣಗಳು ಮತ್ತು ಬಾಡಿಗೆ ದರ

		mi mi voi		ಣಿಕಣ	ದರ	
した。 で	ಯಂತ್ರೋಪಕರಣಗಳು	ಪ್ರಸ್ತುತ ಯಂತ್ರ ಸಂಖ್ಯ	ಸಾಫ್ಟ್ ವೇರ್	A 5570 F	ලේ ස්ප්	ಪರಿಷ್ಣರಣೆ ದರ
	À	10000		ಗಂಚೆಗೆ	ದಿನಕ್ಕೆ	
01	ಪವರ್ ವೀಡರ್	3	3		250.00	
02	ಪರ್ಟ್ ಪ್ರೇಯಸ್	2	5		200.00	
03	GWMO MENOS	1	1		500/-ದನಕ್ಕ	
04	ಬ್ಯಾ <mark>ಜರಿ ಸ್ಟ</mark> ್ರೇಯರ್	2	2		200/-ದಿನಕ್ಕ	811
05	ಹೊಸ್ಟೊ ಹೋಲ್ ಡಿಗ್ಗರ್	1	1	650/-	20/rtxx0@	
06	ಲ್ಲೇಡ್ ಹ್ಯಾರೋ(ಮೇಕ್ ಹ್ಯಾರೋ)	4	4	550/-		
07	ರ ಬೈನ್ ನೇಗಿಯ (ಕ ನೇಗಿಲು)	7	7	550/-		
80	ರ ಚೈನ್ ಬಿಸಿ	3	3	550/-		
09	ರೋಬೀಪಟರ್ (೨೮ ಜ್ಞೇಡ್)	4 .	4	750/-		
10	ರೋಟೀಪೆಚರ್ (20 ಬ್ಲೇಡ್ಸ್)	2	2	650/-		
11	2 മിഷക്കേൽ കാ.ല.മിത്ര	3	3	600/-		
12	ಮಣ್ಣ ಕ್ರಮ್ ತ್ರೆಷರ್	2	2	500/-		600/-
13	ಡಿಸ್ಕ್ ಹ್ಯೂನಿಸ್	1	1	550/-		
14	೨ ಟೈನ್ ಕಲ್ಟವೆಜಾರ್	8	8	550/-		
15	ಮಿಸಿ 9 ಚಿಕ್ಷನ್ ಕಲ್ಡವೇಜರ್	3	3	550/-		
16	ಕೂರಿಗೆ (ಅತ್ತನೆ ಯಂತ್ರ)	1	3	850/-		
17	ಲೆಫಲರ್	2	2	600/-		
18	ರಾಗಿ ರೇವರ್	1	1	1000/-		
19	ರೀಪರ್ ಕಮ್ ಬೈಂಡರ <u>್</u>	1	1	1200/-		
20	න්තරී ඒක්පූත	1	1	600/-		
21	ಮಿನಿ ಡಿಸ್ಕ್ ಹ್ಯಾಯಿಜ	1	3	550/-		
22	र्कार्कार्कार्क मुनुवास सन्दर्भवर	2	. 2	600/-		
23	ಹಿಂಗಲ್ ನಳಗಿಯ	1	1	600/-		
24	ಟ್ರ್ಯಾಶ್ಚರ್	5	5			0 = 0 000 av (mm 7 = 0
25	ಮಿಸಿ ಟ್ರ್ಯಾಕ್ಟರ್	1	2	4		
26	ಕ್ರ್ಯಾಲ	1	1			
	\$x632)	63	70		i	

ಇಂದೇ ನಿಮ್ಮೂರಿನ ಕೃಷಿ ಯಂತ್ರಧಾರೆ ಕೇಂದ್ರಕ್ಕೆ ಬೇಟ ನೀಡಿ, ನಿಮ್ಮ ಹೆಸರನ್ನು ನೊಂದಾಯಿಸಿಕೊಳ್ಳ

ರೈತರ ನೋಂದವಣೆಗೆ ಬೇಕಾದ ದಾಖಲಾತಿಗಳು :-

- 1D ಕಾರ್ಡ್ (ಆಧಾರ್ ಕಾರ್ಡ್ / ರೇಷನ್ ಕಾರ್ಡ್ ನಕಲು ಪ್ರತಿ (ಯಾವುದಾದರು ಒಂದು)

-	UNI	MICNARY NAME	COMPANY	The state of the s
-	1000	Multi Crop Thrusher (10 HP)	VARSHA ASSOCIATES	
1		Multi Crop Thrusher (10 HP)	VARSHA ASSOCIATES	
Z(-	Maiz Sheller ((Muhi Crop - 10 Hp.)	VARSHA ASSOCIATES	
3(Maiz Sheller ((Multi Crop - 10 Hp.)	VARSHA ASSOCIATES	
4		Cocount Frond Chopper (5 HP)	VARSHA ASSOCIATES	
5			VARSHA ASSOCIATES	
		Paddy Planter		
7	3637	Mini Tractor (22 HP V.S.T)	Jaya Agencies	
8	3638	Power Tiller (VST SHAKT) CT-85	laya Agencies	
3	3639	Cocount Frond Chapper (2HP)	Shri Ranganatha Agri Shop	
10)	3640	Leveler Blade (6.5-7 Feet)	Shri Ranganatha Agri Shop	
33)	3641	Cultivator (5 TYNES) with Spring	Jaya Agencies	
12)	3642	Cultivator (9 Tyne Rijid Shaktiman)	Jaya Agencies	
23	3643	Rotovator (36 Blade)	S. K. Enter Prices	1
34	-	(Fower Tiffer (Greaves)	S.R. Enter Prices	
	3645	Tractor (Escorts Farmtrac-45)	ESCORTS	Canada de la casa de l
15		Tractor (Escorts Farmtrac-45)	ESCORTS	
10		Winnowing Fan	Varsha Assocites	
17)		Winnowing Fan	Varsha Assocites	
1.8		(weed cutter (2.5 Hp.)	Jaya Agency	and the same of th
19		0) Grass/Weed Slasher 2.5HP	Jaya Agency	
20		1 cage wheel	Jaya Agencies	
21		2 cage wheel	Jaya Agencies	7
22)		3 Cultivator 5 Blade (5 TYNS)	Jaya Agencies	
23		1	Shri Ranganatha Agri Shop	7
24		4 Cultivator (9 Tyne Rijid Shaktiman)	1	-
25	1338	S Cuftivator (9 Tyne Rijid Shaktiman)	Shri Ranganatha Agri Shop	_
26	1338	Cultivator (Mini 5 Blade)	Maruthi Company	
2.7	1338	7 Cuftivator (Mini S Blade)	Maruthi Company	
28	1338	Rotavator (36 Blade)	Ranganatha Agri	
29		18 Rotavator (36 Blade)	Ranganatha Agri	_
30	1339	90 Renavator (36 Blade)	Ranganatha Agri	_)

	1000	those th		92,070.00	180000.00	60000,00	45030.00	8990,00	22966.00	5455.00	34100.00	u cht 6500.00	3150.00	2500.00										4,60,751.00	(S)
	ತ್ರಿ ಸರ್ವೆಫರ ಎಂಟರ್ ಪೈಸರ್, ಮಂಡ್ನ	Prodd heraet anna du		phon	Notice W	ferm frost could	calco and carrain	endarmides	92	material	angole about 104,	Augment Ontes, and apparent of	स्टिक्स क्यून हैंग्याक	999											Managot Managot Managot
	20	101	19	57640.00	12756,00		1	32400,00	61746.00		5400,40		10000000					3,000.00						1,92,890.00	
		Strike abute thank att	1	120/1/051	800/4069	900/olo6	1000/0000	540/4545	630/4/063	630/mort	540 most	250/Word	\$60,rtqu1	5900/40083	450/mast	1700,000	D909053	300/0000	450,mast	100,770,00				Serve	
210	CHSC (A chosped, strm,	Caldo Hoad	9	43				33	53		4		11					1						362	
TO March	CHSC 64	क्रम्बर्ग शरकत जन्म	10	No nois	15 704		1	60 Hold	98 mott		10 most		40 7583	,		-	,	10						gr ,	
April 2016 To March 2017	ವಿಎಸ್ಟ್ ಟಲ್ಲರ್ ಅಂಡ್ ಟ್ಯಾಕ್ಟ್ ರವಾನಕ್	medicina abso	*		ಟ್ಯಾಕ್ಟ್ ಎಕ್ ರೋಜನೆಗುತ್-16 ಫ್ರೀಕ್ ಚಿಕ್	ing and demonstrated the du	the fee demodracy of the the	ಟ್ಟ್ರಾಕ್ಷರ್ ನಿಶ್ ಕಲ್ಪೀರೆಯರ್ (೬ ಟೈನ್ಸ್ ಸ್ಟಿಂಗ್ ಕಲ್ಪಿಸುಬರ್)	ಡ್ರ್ಯಾಕ್ಟ್ ಎಕ್ ಬಲರಾಮ ಡಿಗುಲ (/ ಟೈನ್ನ್ ಚಳಮನ್ ಕಲ್ಪಿಮೆಂಟ್)	ಡ್ಯಾಫ್ಡ್ ಮಿಕ್ ಗಣುದ ಲೇಗಿದ್ದಾಳಿ ಬೈನ್ಯ ದರ್ಭ ಕಲ್ಪೆಯಲ್ಲಾ	County our disper	ರೋಪನಗಾರ್-16 ರೈಡ್ ನ್ಯೆ	ವಿನೇಶಕ್ಷಣ್ ಶಿಕ್ ರೋದರೇವರ್-ನೀ ಭೇಡ್	ಸಾನೀತಕ್ಕೆ ಬಿಸ್ ಕರ್ನೆಯರ್	वादन भागून	वर्षे क्रमंक्त काल्ड्र ल क्रिया	කිරීම කරුව ගෙනම විය	state ceder (86 shoose attag)	क्षेत्र वर्ण कार्य	युंट उत्पक्षम					
-	SLOW'LL	ತಾಲ್ವಾಣ		deritation										4											
		B _x	n	aboa.																			- 23		
		10 B	4		re	en	er.	ist	9	Pa	10	on	12	H	12	13	14	13	16	17	18	10	8		

-22	स्थान १५१८ च्या स्थान		I
SL	(Exipment) implement Dudils	No Implement	
9)	Rotevater 6 feet	1	
3)	Rotehvuter 5 feet	2	
3)	Baadow Harrow	3	
9 5) 6) 7)	Grass Braddow Harrow		
5)	Duck foot cultivater	2	
6)	Seed daill	3	
	MB Plough	3	
8)	Trolley	1 -	
9)	Tretter	3	
(01	Power sprear	5	
")	Boom spander	l .	
13)	Harwester	I.	
- 74			
		' =	

EVALUATION OF KRISHI YANTRA DHARE (FARM MACHINERY CUSTOM HIRE SERVICE CENTRE) SCHEME IN KARNATAKA

Karnataka Evaluation Authority #542, 5th Floor, 2nd Gate Dr. B.R Ambedkar Veedhi M.S. Building Bengaluru – 560 001

Website: kea.karnataka.gov.in Contact No: 080 2203 2561 Email Id:keagok@karnataka.gov.in