

**CONCURRENT MONITORING AND EVALUATION
OF AGRICULTURE TECHNOLOGY
MANAGEMENT AGENCY (ATMA) SCHEME IN
KARNATAKA STATE DURING 2019-20**

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Foreword

The Agricultural Technology Management Agency (ATMA) scheme aims to facilitate and strengthen extension delivery system in the state through gap filling mode to ensure effective and location specific technology transfer to the farmers through participatory approach, thereby making extension system farmer-driven. ATMA Scheme is under implementation in 640 districts of 29 States and 3 UTs of the country.

Main objectives of the Scheme are to promote decentralized farmer-driven and farmer-accountable extension system through an institutional arrangement for technology dissemination in the form of an ATMA, encourage multi-agency and broad-based extension strategies, adopt group approach to extension and facilitate convergence of programmes in planning, execution, and implementation at district level.

The study on Concurrent Monitoring and Evaluation of ATMA scheme in Karnataka state during 2019-20, implemented by Government of Karnataka, has been evaluated by “Center for Symbiosis of Technology, Environment & Management (STEM)”, Bengaluru. The study mainly focused on examining the implementation process and assess the achievements of physical and financial targets and the impact of the scheme on adoption of technology, cropping pattern, knowledge base and farming practices of the farmers.

To achieve objectives, both secondary and primary data has been used. Secondary data on physical and financial information by districts analysed for assessing the physical and financial performance. Primary data has been collected from 1366 beneficiary farmers located in 29 taluks/districts. Focused group discussions were conducted with the officials and the beneficiary farmers.

Results have demonstrated that the ATMA scheme has been able to have greater impact on farming practices, cropping pattern, production, and yield of the crops. Further, the knowledge base and awareness of the farmers with regard to farming practices and improved technologies have shown an increase among the beneficiary farmers. The results have shown that ATMA activities conducted were beneficial to the farmers. Conventional mode of dissemination to transfer the technologies related to Agriculture and allied sectors have been adopted in all the districts.

The study has proposed strengthening and increasing in the activities under training, exposure visits and new technologies. Convergence of the activities with developments and NGOs can help to enhance the impact of the scheme for the beneficiaries. Allied sectors should have been more affectively involved in ATMA activities based on the priority of each sector.

I am sure that the findings of evaluation report and recommendations will provide useful insights for improving the efficacy of the ATMA scheme. The guidance from the Director (Evaluation) throughout the study and inputs from the ACEO-KEA and experts is greatly appreciated and acknowledged.

The study received support and guidance of the Additional Chief Secretary to Government, Planning, Programme Monitoring and Statistics Department, Government of Karnataka. The report was approved in 52nd Technical Committee Meeting. The review of the draft report by KEA, members of the Technical Committee, and an Independent Assessor, has provided 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
Karnataka Evaluation Authority

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We are also thankful to all districts, taluk level officers of sample Taluk and ATMA functionaries of the Agriculture Department (ATMA), SAMETI (S) and SAMETI (N) for their co-operation in providing necessary information.

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Bangalore
March 2022

Mr. V.M. Hegde
Managing Director

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ABBREVIATIONS

AAP	Annual Action Plan
ACABC	Agri Clinic and Agri Business Centre
ADA	Assistant Director of Agriculture
ATM	Assistant Technology Manager
ATMA	Agriculture Technology Management Agency (ATMA)
ATMA GB	ATMA Governing Body
BFAC	Block Farmers Advisory Committee
BTM	Block Technology Manager
BTT	Block Technology Team
CEO	Chief Executive Officer
CIG	Commodity Interest Group
CPCRI	Central Plantation Crops Research Institute
DAESI	Diploma in Agricultural extension services for Input dealers
DDA	Deputy Director of Agriculture
DFAC	District farmers Advisory committee
DPD	Deputy Project Director
FGD	Focus Group Discussion
FIG	Farmers Interest Group
FPO	Farmers Producer Organization
FS	Farm School
FSG	Food security Group
FSI	Farmer Scientist Interaction
GoI	Government of India
GoK	Government of Karnataka

IIHR	Indian Institute of Horticulture Research
ICAR	Indian Council of Agriculture Research
JDA	Joint Director of Agriculture
KVK	Krishi Vignana Kendra
KGs	Kisan Goshties
MANAGE	National Institute of Agricultural Extension Management
MoV	Means of Verification
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Government Organization
OVI	Objectively Verifiable Indicator
PD	Project Director
RD	Revenue Division
R-E-F	Research Extension Farmer
SAMETI	State Agriculture Management and Extension training Institute
SAU	State Agricultural University
SKDRDP	Sri Kshetra Dharmastala Rural Development Programme
SFAC	State Farmers Advisory Committee
SLSC	State Level Sanctioning Committee
SREP	Strategic Research & Extension Plan
SNO	State Nodal Officer
UTs	Union Territories

EXECUTIVE SUMMARY

A number of extension programmes have been implemented over the years during both pre- and post-Indian Independence for the delivery or transfer of agricultural technology to the farmers through non-formal education such as training and visit extension programme etc. These projects have ensured all round holistic development of the rural populace. The training and visit programme saw much success. However, owing to certain drawbacks of this programme, the Government of India through the Ministry of Agriculture and the assistance of National Institute of Agricultural Extension Management (MANAGE), Hyderabad designed a new extension pilot project correcting these limitations and adding some more reforms. Thus, with much success achieved through this pilot project, the GoI officially launched the new centrally sponsored scheme called “Support to State Extension Programmes for Extension reforms” and started setting up of Agricultural Technology Management Agency (ATMA) in 588 rural districts in India in 2005 to implement this scheme.

The ATMA scheme aims to facilitate and strengthen extension delivery system in the state through gap filling mode so as to ensure effective and all-round location specific technology transfer to the farmers through participatory approach thereby making extension system farmer driven. ATMA Scheme is under implementation in 640 districts of 29 States & 3 UTs of the country.

Main objectives of the scheme are to promote decentralized farmer-driven and farmer-accountable extension system through an institutional arrangement for technology dissemination in the form of an ATMA, encourage multi-agency and broad-based extension strategies, adopt group approach to extension and facilitate convergence of programmes in planning, execution & implementation at district level.

Under the scheme grants-in-aid is released to the States/UTs with an objective to support State Governments efforts in revitalizing the extension system and making available the latest agricultural technologies in different thematic areas to increase production in agriculture & allied sectors through a cafeteria of activities which include farmers training, demonstrations, exposure visits, Kisan mela, mobilization of farmers groups, setting up of farm school, innovative technology dissemination, research-extension linkages etc.

The centrally sponsored scheme is being implemented in Karnataka on a 60:40 sharing pattern between Government of India and Government of Karnataka.

ToR Enclosed as Annexure-1

List of cafeteria of activities enclosed in Annexure-2

1.1 Objectives of the scheme

- The ATMA model of Agriculture extension system has been introduced to “Support the State Agriculture Programmes for Extension Reforms.

- Encouraging multi-agency extension strategies involving in public private extension service providers.
- Ensuring an integrated, broad-based extension delivery mechanism consistent with farming system approach with a focus on bottom-up planning process.
- Adopting group approach to extension in line with the identified needs and requirements of the farmers in the form of CIGs and FIGs and consolidate them as farmers producer organization.
- Facilitating convergence of farmer centric programme in planning, execution and implementation.
- Addressing gender concerns by mobilizing farm women into groups and providing training to them.

1.2 Need for evaluation of ATMA scheme

The ATMA scheme provides for a third-party evaluation of the activities at State, districts and taluk level. It involves the evaluation of all the activities undertaken to achieve programme objectives. The information generated through this evaluation is proposed to be used for improving implementation of the programme by focusing on corrections. With these objectives the task of ‘concurrent monitoring and evaluation of the Scheme during the year 2018-19 has been assigned to “Center for Symbiosis of Technology, Environment & Management” Bengaluru.

Since the inception of the scheme in the State, Concurrent Monitoring and Evaluation of the Scheme has been done during the year 2015-16, 2016-17 and 2017-18. Thus, the GoK has felt is necessary to evaluate the scheme implemented during 2019-20 to identify the gaps in planning and implementation.

The inception report was approved on 27th March 2020. Further, the STEM was advised by the Agriculture Department and KEA to change the evaluation period from 2018-19 to 2019-20, through a meeting held on 24th June 2020 at KEA.

1.3 Objectives of concurrent monitoring & evaluation

- ✓ To assess whether the scheme activities are planned and implemented in the frame work of the ATMA guidelines 2018.
- ✓ To assess the progress of the scheme in terms of achievement of physical and financial targets.
- ✓ Assess the convergence of activities of participating allied sectors for better results in planning and implementation of ATMA activities
- ✓ To assess the extent of adoption of prescribed process in planning at taluk and district levels.
- ✓ To assess the formation training and other aspects of social mobilization through farmer groups and food security groups.

- ✓ To assess the functioning of ATMA institutions like SFAC, ATMA GB, DFAC, and BFAC
- ✓ To assess the involvement of KVKS and SAUS in the planning and implementation process.
- ✓ To assess the impact of the implemented activities in respect of number of farmers benefitted, number of weaker sections of farmers benefitted like SC, ST, and women.
- ✓ Role & participation of women and their representation in ATMA activities and farmers advisory committees
- ✓ Level of involvement of NGOs, AC& ABC trained personnel and input dealers.
- ✓ To assess the impact of the scheme on adoption of technology, cropping pattern, knowledge base and farming practices of the farmers.
- ✓ To examine the impact on production, productivity and yield across the division

1.4 Purpose of evaluation

The purpose is to examine the implementation process and assess the achievements of physical and financial targets and the impact of the scheme and to get the necessary feedback for further improvement.

1.5 Scope of evaluation

The ATMA scheme is being implemented in 29 districts of the state in four Revenue Divisions. The scheme activities planned and implemented during 2019-20 have been covered during the concurrent monitoring & evaluation. One sample taluk in each district has been selected to evaluate the taluk level activities.

1.6 Evaluation tools

As a guide to the evaluation a set of evaluation questions, sub questions, indicators, data source, data collection method and data collection instruments were designed to collect the secondary information from different sources.

1.7 Methodology

A study team was constituted to collect data, conduct focused group discussions and interview with beneficiary farmers and others involved in the ATMA activities. The team has also tabulated analyzed, interpreted and prepared the Final report.

The ATMA scheme activities are being planned and implemented at five levels viz: State, SAMETIs, district, taluk and village levels throughout the state.

To assess the evaluation questions secondary data from the Directorate of Agriculture at State level, office of the Deputy Director of Agriculture (Project Director) at district level and Assistant Directors of Agriculture in sample taluks has been collected. Also, data has been collected from SAMETI (S) UAS, Hebbal located at Bengaluru. & SAMETI (N) located at

UAS, Dharwad.

The primary data at taluk and village levels from the beneficiary farmers also has been collected.

The secondary & primary data collected in one round.

Focused group discussions have been held at taluk and village levels with concerned officers and beneficiary farmers.

The study team held collective discussions with the Government functionaries under the nodal Department i.e., Department of Agriculture and the allied Departments. The required information was collected by conducting personal interviews/observations, group discussion and interactions etc. with the respective stakeholders.

1.8 Findings

Based on the analysis of the primary and secondary data made available by the beneficiary farmers and officers of the ATMA scheme the following findings have been made.

1. The physical progress in terms of the number of activities implemented during 2019-20 is between 18 and 29 against a target of 28. The highest number of activities implemented are in Ramanagara, Bengaluru urban and Hassan districts. The lowest number of 18 activities have been implemented in Dharwad district followed by Bagalkot district.
2. The financial progress achieved is between 65 percent and 103 percent in different districts. The lowest achievement of 65 percent is in Ballari district and the highest of 103 percent is in Belagavi district. The achievement is against the target fixed in the approved annual action plan for 2019-20.
3. The overall average expenditure in the state is 85.4 percent. Expenditure towards the activities is 37 percent of the total expenditure whereas the expenditure towards manpower and administration is 63 percent.
4. The financial allocation in allied sectors is 4.5 percent. Against a financial expenditure of 1706 lakhs earmarked for ATMA activities, an amount of Rs 42.79 lakhs only has been spent by the allied sectors activities. This works out to 2.5 percent of the expenditure under ATMA activities.
5. The annual action plans approved at State level has been divided among 29 districts and these district targets have been further divided among the taluks in each district and sent for implementation at taluk and district levels. Annual action plans have been prepared by the Assistant Director of Agriculture in the taluks of Chikkaballapur, Chitradurga, Ramanagara and Uttara Kannada districts. An attempt has been made by the ADAs of these taluks to submit the annual action plans to their Project Directors for further action.

Bottom-up approach of preparations of annual action plans reported but it was done based on discussion with farmers in the other districts.

6. The allied sectors, namely Horticulture, Sericulture, Animal Husbandry, Fisheries and Forestry need to be involved in the planning process in all districts.
7. The district level ATMA Governing Boards constituted from 2017 to 2019 are functioning in the 29 districts. The modified ATMA guidelines have come into effect from October 2018.
 - A. The ATMA Governing Board (GB) is a policy making body which provides guidelines, reviews and monitors the progress and function of ATMA. The board has to have 7 farmer representatives and 3 other members as its members from different fields. During 2019-20, the boards have a women farmers representation of non-official members a minimum of 1 in Mandya and Mysore districts to a maximum of 13 in Bagalkot district. The governing boards have a women representation of 'Nil' in Shivamogga, Chikkamagaluru and Mandya districts. The other districts have a representation of 1 to 6 women farmers. This woman farmers representation is against a minimum of 3 in each governing board. The SC/ST farmers representative is adequately represented in all districts except Udupi and Yadgir.
 - B. For effective functioning and guidance to ATMA, governing board has to meet every quarter. It is observed that the governing boards of Ramanagara, Vijayapura and Ballari are yet to meet.
8. District Farmers Advisory Committee (DFAC) is a body to provide farmers feedback for district level planning and implementation.
 - A. The DFAC have been constituted in all the districts. The term of each DFAC is 2 years with new set of farmers. The committees have been formed during 2017, 2018 and 2019. The DFACs formed during 2017 should have been reconstituted by 2019 as per the ATMA guidelines 2018.
 - B. The DFACs should comprise of not more than 40 members. The committees working at present have a minimum of 15 members in Udupi and Haveri districts followed by Mysore and Dakshina Kannada which have 30 members.
 - C. The DFACs have to meet at least four times in a year i.e., once during each quarter. The districts of Chikkaballapur, Chitradurga, Chikkamagaluru, Kodagu, Udupi, Vijayapura and Kalaburagi have not met even once during the year. The other DFACs have met 1 to 4 times with a maximum of 4 in Belagavi, Gadag and Haveri district.
 - D. DFAC has to have 5 state level awardee farmers from Agriculture and allied sectors. The committees in the districts of Bengaluru Urban, Chikkaballapur, Chikkamagaluru, Kodagu, Dharwad, Vijayapura and Kalaburagi do not have awardee farmers. Other districts have a representation of 1 to 10.
 - E. Representation of SC/ST farmers is not observed in the districts of

Chikkaballapur, Kolar, Chikkamagaluru, Kodagu and Kalaburagi districts. Other districts have a minimum of 1 SC/ST farmer to a maximum of 11 SC/ST farmers in their committees.

- F. Women farmers have not been represented in the DFACs of Chikkaballapur, Ramanagara, Shivamogga, Chikkamagaluru, Kodagu and Kalaburagi districts. Other districts have between 1 to 8 women farmer members on their committees.
- G. Block Farmers Advisory Committee members (BFAC) / Chairman have not represented the committees in the districts of Bengaluru Urban, Chikkaballapur, Chitradurga, Davangere, Chikkamagaluru, Hassan, Kodagu, Mandya, Vijayapura, Bidar, Kalaburagi and Raichur Districts. In other districts the representation is between 1 to 20.
9. The Block Farmers Advisory Committee at taluk level act as an agency for providing farmers feedback and inputs for preparation of annual action plans.
- A. The BFAC have been constituted in all the sample taluks during the years 2015-16 to 2019-20. Term of each BFAC is 2 years after which new set of farmers have to constitute the BFAC.
- B. The BFAC at taluk level has to meet once in a month during the season and quarterly in lean season. Thus, the number of meetings to be conducted varies from taluk to taluk depending upon the cropping season. Number of meetings conducted in each taluk ranges from 1 to 6. Maximum number of 6 meetings have been conducted in Chikkodi taluk of Belagavi district followed by Bengaluru North, Sagara, Sakleshpura and Gadag taluks.
- C. The Block Farmers Advisory Committee in each taluk has to comprise of not more than 30 members. The members include one Chairman of taluk Panchayat Samiti, all members of Zilla Panchayat in the taluk and 25 progressive farmers. Data indicates that the number of members in each sample taluk varies from a minimum of 17 in Karkala taluk to a maximum of 30 in Bangarpete taluk. The number varies from taluk to taluk depending upon the number of Zilla Panchayat members in each taluk.
- D. The SC/ST farmer's representation in each sample taluk varies with a maximum of 8 in Chikkaballapur taluk followed by Ramanagara and Shahpur taluks.
- E. Representation of women farmers in the committees is adequate in all taluks except Bengaluru North, Chikkaballapur, Chitradurga, Davangere, Ramanagara, Chamarajanagar, Nanjanagudu, Karkala, Hospete, Bhalki, Aland, Yelaburga and Raichur taluks.
10. All districts have adopted the conventional mode of dissemination to transfer the technologies related to Agriculture and allied sectors. In addition to these Ramanagara, Gadag districts have used videos and video clippings to disseminate the

technology. Kalaburagi district has developed technology packages on local issues. Belagavi district has also adopted Facebook, Youtube and Whatsapp social media platforms to disseminate the technology.

11. Non-governmental agencies like NGOs, ACABC trained agri-prenuers and DAESI trained input dealers have not been involved in the planning and implementation process. A few NGOs in the districts of Chikkaballapur, Shivamogga, Mandya, Mysore, Udupi, Dharwad, Haveri, Koppal have been entrusted with the tasks of conducting trainings, exposure visits, group formation as resource persons.

12. Eight percent of scheduled caste farmers and 4 percent of scheduled tribes' farmers have derived benefits from the farmer-oriented activities.

The women beneficiaries account to 30 percent of the total beneficiaries.

13. The farmer-oriented activities have been implemented by ATMA functionaries. In the sample taluks where allied sectors activities are implemented by respective sector, it has been done independently. Convergence of activities either at planning stage or at implementation stage to be encouraged.

14. The two SAMETI's at Bengaluru and Dharwad have actively involved in arranging orientation and refresher training programmes to ATMA functionaries, officers of allied sectors and non-governmental agencies.

15. The designated Krishi Vignana Kendra's (KVK) in all the districts have facilitated the ATMA to the desired level.

16. The ATMA activities have been implemented in the districts in all the months for the financial year 2019-20.

17. The ATMA activities have been implemented during all the months of financial year 2019-20. About 90 percent of the activities have been implemented from August 2019 to March 2020.

18. The ATMA functionaries at district, taluk and hobli level are spending about 60-70 percent of their time and energy in implementing the schemes and programmes of Agriculture Department in addition to ATMA activities. This aspect has been confirmed during focus group discussions with the Assistant Directors of Agriculture and interviews with Project Directors & Deputy Project Directors (ATMA).

19. The impact of the scheme on the farming practices, cropping pattern, production and yield of crops needs further improvement.

20. The knowledge base and awareness of the farmers with regard to farming practices and improved technologies has shown an increase among the beneficiary farmers.

21. Eighty one percent of beneficiary farmers have opined that the ATMA activities conducted ranging from good to very good. About 35 percent have said the activities were very good and 46 percent have said the activities were good.

22. Fifty one percent of the beneficiaries have asked for increase in the activities under trainings, exposure visits and new technologies.

1.9 Recommendations

Short-term practicable

1. The annual action plans should be prepared before the start of the financial year based on the research extension priorities identified for the districts in the SREP (Strategic Research Extension Plan) and keeping in mind the agro-ecological conditions and existing gaps in technology and dissemination in all agriculture and allied sector areas.
2. Bottom-up approach in the preparation of AAPs and allocation of resources should be followed at different levels. The planning at district & taluk levels needs to be strengthened.
3. More allocations should be made for farmers-oriented activities during planning than administration and manpower component.
4. Allied sectors like Horticulture, Sericulture, Animal Husbandry and Fisheries should have been more effectively involved in ATMA activities based on the priority of each sector in the taluks. Allied sector wise AAPs need to be prepared each year involving the allied sectors in the planning process.
5. Allocation of resources to each major group of ATMA activities should be done as per financial allocation prescribed in the guidelines.
6. The expenditure towards the manpower and administration far exceeds the expenditure incurred towards ATMA activities taken up for farmers. All possible efforts should be made to bring down the administration costs and manpower expenditure to the extent prescribed under the ATMA guidelines.
7. The Farmer Advisory Committees at districts and taluk levels have to be reconstituted in the districts and taluks as per ATMA guidelines 2018.
8. Adequate representation of SC, ST & women farmers as prescribed under the guidelines in the farmer's advisory committees needs to be taken up in districts and taluks.
9. The quarterly meetings of SFAC, ATMA GB, DFAC needs to be conducted periodically at regular intervals in State, districts & taluk levels as per ATMA guidelines 2018.
10. The monthly meeting of Block Technology Teams (BTT) headed by the Assistant Director of Agriculture has to be conducted compulsorily every month in all the taluks.
11. The BFAC meetings of taluks need to be conducted every month during cropping season and quarterly during lean season in each taluk.
12. The involvement of allied sector in planning and implementation of ATMA activities

at field level is very meagre, physical & financial allocation to these sectors need to be enhanced proportionate to the sectoral activities undertaken in each taluk and districts.

13. Farmer oriented activities pertaining to allied sectors needs to be implemented by the concerned allied sector agencies which will lead to have higher impact on the outcome.
14. Convergence with government and non-governmental sectors has to be ensured for effective planning and implementation of the scheme objectives. Officers concerned at district and taluk levels need to be trained in convergence schemes available under State and Central Government programmes.
15. The presence of Deputy Project Director of ATMA at district level need to be ensured during the scheme period for effective planning and implementation of the scheme.
16. The concurrent monitoring and evaluation study by third party should begin at least by the end of first quarter of the financial year. So that monitoring of the activities is done during implementation process.
17. The impact of the ATMA activities on the crop production aspects should be initiated during the succeeding year.
18. Involvement of non-governmental organizations, ACABC trained personnel and DAESI trained input dealers should be ensured for realizing the objectives of the scheme.
19. ATMA functionaries at district, taluk and hobli level should be allowed to devote more time for planning and implementing ATMA activities.
20. Efforts need to be made for improving the participation of SC/ST farmers in ATMA activities in the districts of Ramanagara, Belagavi, Gadag and Uttara Kannada districts.
21. More trainings and exposure visits need to be organized and aspects like marketing linkages, value addition and income generating activities should be also considered.

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA)
Scheme in Karnataka State during 2019-20

CHAPTER -2. BACKGROUND

Agriculture sector continues to be the pivotal sector in the Indian economy providing employment, livelihood, food and ecological securities. Agriculture and allied activities constitute about 29 percent to the Gross Domestic Products. Indian Agriculture employs about 60 percent of the total workforce and it is the major source of development in India. As a result of sustained efforts, food grain production has increased from 50.8 million tons in 1950-51 to 297.5 million tons in 2019-20.

There is an urgent need to accelerate growth of agriculture and allied sectors to address uses of food security, nutritional adequacy, rural income generation, employment and poverty. Despite higher promotion of per capita availability of food over time, it has not increased significantly. The Government of India and the Government of Karnataka have been constantly trying to adopt more scientific and technological development programmes. Farmer's active participation, training programmes for skill development for farmers, have resulted in increasing the pace of development in all agriculture and related sectors in all five years plans.

With a cropped area of 122.67 lakh hectares in Karnataka, the agricultural production target for 2019-20 was 138.67 lakhs tons of food grains, 14.71 lakh tons of oil seeds and 16.58 lakh bales of cotton. To achieve these targets agriculture department is implementing many development programmes through the assistance of the State and Central Government schemes, agriculture continues to be the main occupation of the farmers in Karnataka with about 75 percent of the cropped area dependent on low erratic rainfall. Agriculture department is one of the main development departments and important responsibilities are 1) Transfer of Agriculture Technology 2) Supply and control of Agriculture Inputs and 3) Other technical services.

For meeting the increasing food demand for the ever-increasing population of the state, the agriculture department is constantly trying to transfer the research results and technologies that emanate from the Agriculture Universities and other Research Institutes to the 62 lakh farming families who are cultivating the rain fed and irrigated lands. The allied Departments namely Horticulture, Sericulture, Animal Husbandry Fisheries in the state are also trying to transfer the knowledge and technologies to the farmers in their respective areas. The efforts of all these development departments are aimed at the goal of higher production by using latest knowledge and technologies. Day by day agriculture as an occupation is seeing diversities and farmers who have better resources are already moving towards integrated farming systems and the like.

Agriculture Technology, including the adoption, promotion of critical inputs and improved agronomic practices are being disseminated through many states and centrally sponsored schemes. The Department of Agriculture is implementing national mission on food processing, National food security mission on rice, pulses, coarse cereals and commercial crops. National mission on sustainable agriculture, National mission oil seeds and oil palms, Rastriya Krishi

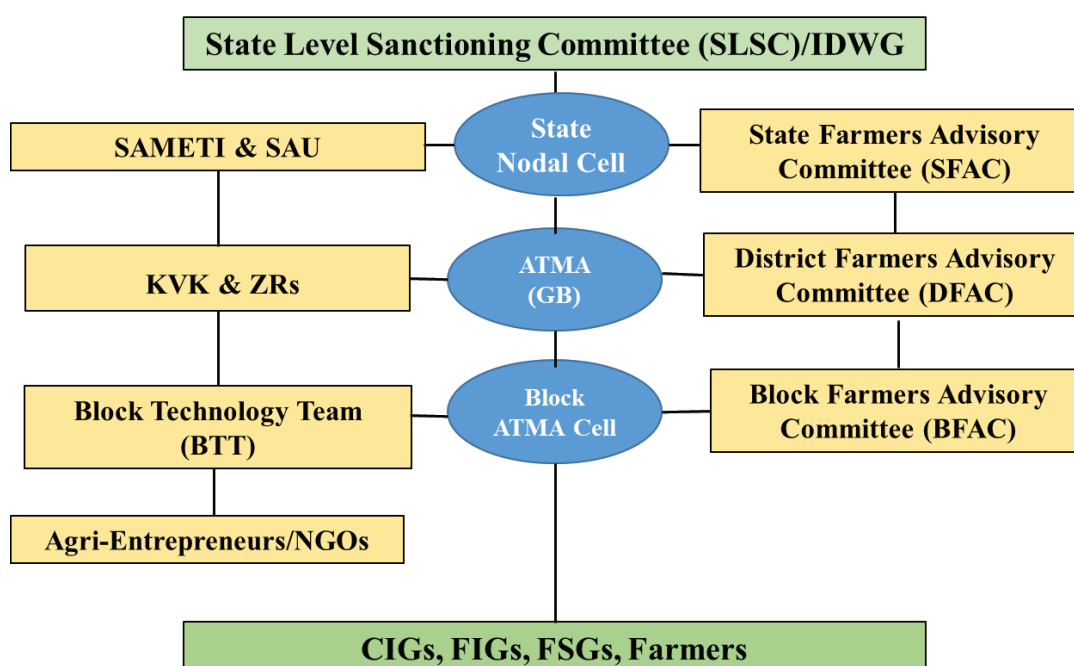
Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Vikas Yojana. National e-governance plan-agriculture and National Mission on Agriculture Extension and Technology (NMAET) among others. The Scheme (Support to State Extension Programme for Extension reforms) is a Part of the Sub-Mission on Agriculture Extension (SAME) which is one of the Sub-Mission under NMAET.

The Govt of India (GOI) introduced a centrally sponsored scheme “Support to State Extension Programme for Extension Reforms” during 2005-06 in nine districts of the state namely Bidar, Gulbarga, Shivamogga, Chamarajanagar, Kolar, Koppal, Haveri, Bijapur and Hassan. Since 2007-08, the scheme is being implemented in all the districts of the state. The scheme guidelines were modified and the modified extension reforms scheme was introduced in 2010 with the objective of strengthening the state extension machinery and utilizing it for synergizing the interventions under these schemes under the umbrella of Agriculture Technology Management Agency (ATMA). It was revamped, expanded and strengthened comprehensively in the year 2014 and 2018.

Administration of the scheme

The organization structure at various levels have been depicted in the following Diagram.



The component of ATMA scheme is being implemented through the following institutional mechanism.

State Level:

- i. The State Level Sanctioning Committee (SLSC) set up under Rastriya Krishi Vikas Yojana (RKVY) is the apex body to approve the state extension work plan.

- ii. The State Nodal Cell (SNC) is headed by the Commissioner of Agriculture / Director of Agriculture and supported by a State Co-ordinator, State Gender Co-ordinator and supporting staff.
- iii. The two State Agricultural Management and Extension Training Institutes (SAMETIs) set up at UAS, Bengaluru and UAS Dharwad support the SNO for capacity building of extension functionaries in the State.
- iv. The state farmers Advisory Committee (SFAC) provides feedback for formulation of State Extension Work Plan (SEWP).

District level:

The ATMA is set up at district level to ensure delivery of extension services to farmers. ATMA Governing Board (ATMA GB) is the apex body of ATMA which provides overall policy direction. The Chief Executive Officer of the concerned district Zilla Panchayat is the Chairman of ATMA GB. The Deputy Director of Agriculture is the Project Director of ATMA GB and is also the Secretary of ATMA GB. The DDA is supported by a Deputy Project Director (ATMA). The ATMA GB is supported by the district farmers Advisory Committee. (DFAC) the Project Director is the member secretary of DFAC.

Taluk Level:

The block ATMA cell consists of Block Technology Team (BTT) comprising officers of agriculture and other allied departments and block farmers advisory committee. (A group exclusively consists of selected farmers of the block).

The BTT is supported by a Block Technology Manager (BTM) and not more than three Assistant Technology Managers (ATM) in a Block. The BTM is the Member Secretary of the BFAC.

2.1 Physical and financial analysis

The summary of physical & financial progress of the scheme during 2019-20 is presented in below table. From the table it can be seen that the cafeteria of activities to be implemented during 2019-20 were 28 in each district and the actual number of activities implemented is shown Revenue Division wise and district wise in the table. Maximum number of activities have been implemented in Ramanagara and Davangere districts and least number of activities have been implemented by Dharwad district followed by Bagalkot district.

The financial achievements range from a least of 65 percent in Ballari district and maximum of 103 Percent in Belagavi district.

Analysis of district wise, Revenue Division wise and activity wise financial targets and expenditure has been discussed in physical and financial achievements in chapter-at 6.3.6

Proposing a sustainable ATMA model including actors, interactions and action situations, aiming for sustainable development of agriculture

The ATMA model of Agriculture extension system is farmer driven with an integrated, broad based extension delivery mechanism consistent with farming systems approach with a focus on bottom-up planning process, convergence of farmer centric programmes with schemes /

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

activities of Agriculture and other allied sectors.

The ATMA scheme is in itself aims at sustainable agriculture development. To achieve this objective the will of the implementing officers is a prerequisite.

The aim, objectives and activities of ATMA and Department of Agriculture are complementary to each other. With its trained personnel at taluk and district level the ATMA functionaries can complement and converge the activities at taluk and district level. The decision-making authorities at these levels need to be suitably instructed to plan and implement the ATMA activities in letter and spirit along with and consistently in the administrative set up of the ATMA functionaries in districts and taluks.

ATMA model of extension system is an integrated approach with focus on the bottom-up approach on planning, implementation considering the micro level agro - climatic conditions and exposure level of farming community. This makes it different from the traditional extension programmes. This facilitates to fill the gap in technology and infrastructure available and required for the sustainable development of the area. ATMA also supports the farming community on processing, value addition and marketing of their produce. Thus, the popularization of composting arecanut husk in Shivamogga district is an excellent example in this line. The financial means of ATMA is also meagre.

The physical & financial progress of the scheme during 2019-20 is presented in below table.

Table 1: The physical & financial progress of the scheme during 2019-20

Name of RD	District	Physical Progress			Financial Progress (Rs. In Lakhs)		
		No. of activities to be implemented	No of activities implemented	Percentage of achievement	Target	Achievement	Percentage of Achievement
Bengaluru	Bengaluru Urban	28	28	100	129.69	129.54	99.8
	Chikkaballapur	28	23	82	153.06	135.23	88
	Chitradurga	28	21	75	139.7	118.6	85
	Davangere	28	29	103	126.36	109.97	87
	Kolar	28	24	85	143.05	127.64	89
	Ramanagara	28	29	103	109.68	88	80
	Shivamogga	28	23	82	205.39	153.04	75
	Tumakuru	28	26	93	262.12	187.2	71
Mysuru	Chamarajanagara	28	26	93	104.9	85.46	81
	Chikkamagalur	28	21	75	175.35	137.18	78
	Dakshina Kannada	28	27	96	109.67	87.24	80
	Hassan	28	28	100	208.73	174.74	84
	Kodagu	28	22	78	96.33	73.63	77
	Mandya	28	27	96	178.69	180.2	101
	Mysuru	28	26	93	182.03	173.19	95

Name of RD	District	Physical Progress			Financial Progress (Rs. In Lakhs)		
		No. of activities to be implemented	No of activities implemented	Percentage of achievement	Target	Achievement	Percentage of Achievement
	Udupi	28	26	93	72.97	59.65	82
Belagavi	Bagalkot	28	19	68	126.36	102.49	81
	Belagavi	28	22	78	212.06	218.05	103
	Dharwad	28	18	64	106.34	95.59	90
	Gadag	28	24	85	96.33	91.15	95
	Haveri	28	24	85	141.98	136.38	96
	Uttara Kannada	28	23	82	205.91	182.51	89
	Vijayapura	28	22	78	119.69	97.33	81
Kalaburagi	Ballari	28	25	89	175.36	114.39	65
	Bidar	28	25	89	153.06	119.49	78
	Kalaburagi	28	25	89	182.03	174.94	96
	Koppal	28	24	85	116.35	95.39	82
	Raichur	28	20	71	176.42	141.53	80
	Yadgir	28	27	96	99.16	93.39	94

From the table it can be seen that the cafeteria of activities to be implemented during 2019-20 were 28 in each district and the actual number of activities implemented is shown Revenue Division wise and district wise in the table. Maximum number of activities have been implemented in Ramanagara and Davangere districts and least number of activities have been implemented by Dharwad district followed by Bagalkot district.

The financial achievements range from a least of 65 percent in Ballari district and maximum of 103 Percent in Belagavi district.

Scope and objectives of evaluation

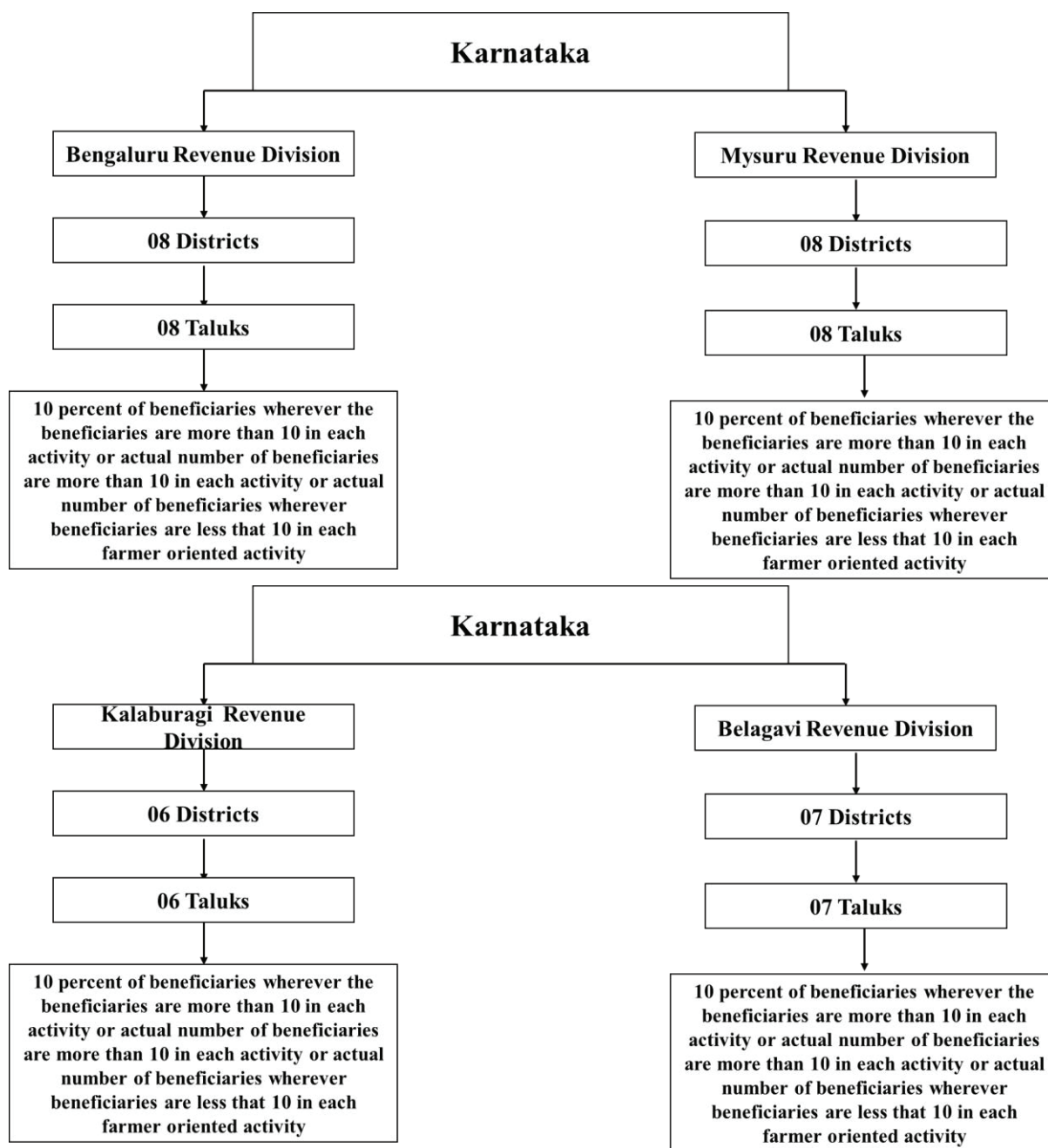
2.2 Scope of evaluation

The ATMA scheme is being implemented in Karnataka State from 2005-06 as a centrally sponsored scheme.

The ATMA scheme is being implemented in 29 districts of the state in four Revenue Divisions. The scheme activities planned and implemented during 2019-20 have been covered during the concurrent monitoring & evaluation.

Number of districts selected for the study in Karnataka from four Revenue Divisions are as follows.

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20



To evaluate the activities at taluk level, one sample taluk from each of the 29 districts have been selected as under.

Bengaluru Revenue Division		Mysuru Revenue Division	
District	Sample Taluk	District	Sample Taluk
Bengaluru urban	Bengaluru North	Chamarajanagar	Chamarajanagar
Chikkaballapur	Chikkaballapur	Chikkamagaluru	KAduru
Chitradurga	Holalkere	Dakshin Kannada	Mangaluru
Davangere	Davangere	Hassan	Sakleshpura
Kolar	Bangarrapete	Kodagu	Virajpete
Ramanagara	Ramanagara	Mandya	Madduru

Bengaluru Revenue Division		Mysuru Revenue Division	
District	Sample Taluk	District	Sample Taluk
Shivamogga	Shivamogga	Mysuru	Nanjanagudu
Tumakuru	Koratagere	Udupi	Karkala

Kalaburagi Revenue Division		Belagavi Revenue Division	
District	Sample Taluk	District	Sample Taluk
Ballari	Hospete	Bagalkote	Bagalkote
Bidar	Bhalki	Belagavi	Chikodi
Kalaburagi	Alanda	Vijayapura	Sindgi
Koppal	Yelburga	Dharwad	Dharwad
Raichuru	Raichuru	Gadag	Gadag
Yadgir	Shahpura	Haveri	Ranibennuru
		Uttara Kannada	Bhatkal

The SAMETI's in Bengaluru and Dharwad have also been covered during the evaluation. The primary stakeholders, namely the beneficiary farmers of the scheme during 2019-20 have been covered to collect the information about the activities they attended, their usefulness and adoptions at field level.

District wise number of beneficiary farmers covered in each sample taluk is given below.

Table 2: District wise beneficiary farmers covered

Sl. No	District	Taluk	No. of Beneficiary farmers covered
1	Bagalkote	Bagalkote	46
2	Bangalore Urban	Bangalore North	63
3	Belagavi	Chikkodi	57
4	Bellary	Hospete	34
5	Bidar	Bhalki	45
6	Chikkaballapur	Chikkaballapur	51
7	Chikkamagaluru	Kadur	54
8	Chitradurga	Holalkere	55
9	Dakshina Kannada	Mangaluru	60
10	Dharwad	Dharwad	46
11	Hassan	Sakleshpur	12
12	Haveri	Ranibennur	43
13	Kalaburagi	Aland	51
14	Kodagu	Virajpete	34
15	Kolar	Bangarpet	45
16	Koppal	Yelburga	45
17	Mandya	Maddur	67

Sl. No	District	Taluk	No. of Beneficiary farmers covered
18	Mysore	Nanjangud	57
19	Raichur	Raichur	17
20	Ramanagara	Ramanagara	48
21	Shivamogga	Shivamogga	62
22	Tumakuru	Koratagere	47
23	Uttara Kannada	Bhatkal	55
24	Vijayapura	Sindagi	43
25	Yadgir	Shahapur	65
26	Udupi	Karkala	69
27	Gadag	Gadag	35
28	Chamarajanagar	Chamarajanagar	10
29	Davangere	Davangere	50
Grand Total			1366

The study covers the non-beneficiary farmers also at the rate of 5 farmers in each sample taluk.

2.3 Objectives of concurrent monitoring & evaluation

- ✓ To assess whether the scheme activities are planned and implemented in the frame work of the ATMA guidelines 2018.
- ✓ Carryout detailed analysis of resources allocation for different activities as per guidelines.
- ✓ Whether the plans prepared at village, block and district levels are used to bridge the gap between potential and actual yields and resources allocation at all levels.
- ✓ Assess the convergence of activities of participating allied sectors for better results in planning and implementation of ATMA activities including SREP preparation.
- ✓ To assess the extent of adoption of prescribed process in planning at taluk and district levels.
- ✓ To assess the formation, training and other aspects of social mobilization through farmer groups and Food security groups.
- ✓ To assess the functioning of ATMA institutions like SFAC, ATMA GB, DFAC, and BFAC.
- ✓ To assess the involvement of KVKs and SAUs in the planning and implementation process.

- ✓ To assess the impact of the implemented activities in respect of number of farmers benefitted, number of vulnerable sections of farmers benefitted like SC, ST, and women.
- ✓ Role & participation of women and their representation in ATMA activities and farmers advisory committees.
- ✓ Level of involvement of NGOs, AC& ABC trained personnel and input dealers.
- ✓ To assess the impact of the scheme on adoption of technology, cropping pattern, knowledge base and farming practices of the farmers.
- ✓ To examine the impact on productivity and yield across the divisions.

Evaluation Questions:

As a guide to the evaluation and achieve evaluation objectives, the ToR provides a list of evaluation questions under the following heads.

1. Inputs- norms and their Adequacy
2. Process/implementation
3. Efficiency/output
4. Project impact in reforming the extension system
5. Impact of the scheme on adoption of technology cropping pattern, knowledge base and farming practices of the farmers etc.

Detailed list of evaluation questions is given as evaluation matrix along with data source and method of collection.

2.4 Evaluation matrix

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
A) Impact of ATMA						
A1	Adoption rate to new technology-causes	1. What production technologies are being generally followed?	<ul style="list-style-type: none"> Proportion of farmers who adopted improved technologies. Proportion of farmers whose income increased due to ATMA intervention. Proportion of farmers whose yield/Acre increased. 	PD/DPD ADA Beneficiary farmers	Personal interview FGD at taluk level-allied sectors	District Level schedule -18(i) Taluk level schedule-11.1 Beneficiary schedule-B.1
		2. What production technologies were followed during 2019-20.				
		3. How many have adopted technologies like Drip irrigation, Sprinkler irrigation, fertigation, mechanized harvesting, mechanised threshing etc.				
		4. How the technologies like Drip irrigation, Sprinkler irrigation, fertigation, mechanized harvesting, mechanised threshing etc. have helped to increase the income of farmers				
		5. What factors influenced the use of these technologies				
		6. How many farmers wish to continue these technologies?				

BACKGROUND

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
A2	Modernization of farming practices- across the districts and divisions.	7. What role did ATMA play in adoption of these technologies	Proportion of farmers who adopted Modern farming practices	PD/DPD ADA	Personal interview FGD at taluk level-allied sectors	District level schedule -18(ii) Taluk level schedule-11.1a
		8. Causes for non-adoption of technologies like Drip irrigation, Sprinkler irrigation, fertigation, mechanized harvesting, mechanised threshing etc..				
		9. These technology benefits are from ATMA or another scheme/Department?				
		1. What farming practices are being followed generally?				
A3	Impact on cropping pattern.	2. What farming practices were followed during 2019-20	Proportion of area under various crops at a time	PD/DPD ADA Beneficiary farmers	Personal interview	District level schedule - 18(iii) Taluk level schedule-11(iv)
		3. How many farmers practiced vermicompost, IPM, INM Biofertilizers, rotation of crops IFS etc.				
		4. Whether ATMA facilitated to adopt these practices?				
		1. What is general cropping pattern of the area				
		2. What cropping was followed previous to 2019-20 season				

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
A4	Impact on yield and productivity- across districts and divisions	wise?	Average yield & product of crops	PD/DPD ADA Beneficiary farmers	Personal interview	Beneficiary schedule-C
		3. What crops grown during 2019-20 season wise?				
		4. Was the cropping pattern is changed during 2019-20?				
		5. Which influenced the change?				
		6. What role did ATMA play in the change of cropping pattern?				
		1. What is the normal yield/acre of crops in the area during 2018-19?				
		2. What is the yield per acre of crops during 2019-20?				
		3. Is there increase/decrease in the yield per acre of crops during 2019-20?				
		4. What are the factors for increase/decrease in the yield per acre during 2019-20?				
		5. Is ATMA intervention, a factor for increase in yield, per acre of crops during 2019-20				
						District level schedule - 18(iv) Taluk level schedule-11(v) Beneficiary schedule-C Secondary data

BACKGROUND

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
A5	Impact on Income of the farmers- across divisions, districts & category of farmers.	6. What was the cost of cultivation of major crops	<ul style="list-style-type: none"> • Gross profit of farmers • Net of increase in income of farmers • Role of ATMA in increase of income of farmers 	PD/DPD ADA Beneficiary farmers	Personal interview	District level schedule -18(v) Taluk level schedule-11(vi) Beneficiary schedule-D1
		1. What was the average annual income of the farmers during 2018-19?				
		2. What is the average income of the farmers during 2019-20?				
		3. Is there an increase in the income of the farmers during 2019-20?				
		4. What influenced the increase?				
		5. What is the influence of ATMA in the increase of income of farmers?				
A6	Marketing of agriculture produce.	6. Whether marketing of Agriculture produce affect the income of farmers?	Marketing source, time, mechanism of marketing	PD/DPD ADA Beneficiary farmers	Personal Interview	District level schedule -18(vi) Taluk level schedule-11(iii) Beneficiary schedule-B4
		1. What percentage of agriculture produce is marketed?				
		2. Where do the farmers market their produce				
		3. What price did the farmers get? Did it add to the increased income?				
		4. Whether ATMA facilitated				

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
		and educated farmers in marketing their produce				
		5. Whether the produce was marketed raw? Or was it processed & marketed?				
B) PROJECT IMPACT IN REFORMING THE EXTENSION SYSTEM						
B1	Dissemination of technology	1. What are the modes of dissemination of technology? 2. Have they reached the farmers 3. What means of technology dissemination farmer prefer?	Number of technologies disseminated through training, exposure visits farmer to farmer interaction and ITD component etc.	PD/DPD	Personal interview	District level schedule -13 A, B,C
B2	Commodity based farmer interest groups.	1. How ATMA helped in the mobilisation of farmers group? 2. How many CIGs & FIGs are formed? 3. How many FSGs are formed?	Number of groups formed and functional	PD/DPD ADA farmer groups	Personal interview with FGD allied sectors at taluk level	District level schedule -5 Taluk level schedule-2
B3	Decentralization, multi-agency and flexible decision making and implementation.	1. Which are the agencies involved in the decentralization and flexible decision making 2. Which are the NGOs involved in ATMA	Role of ATMA personnel at different levels & various agencies and committees involved in	PD/DPD ADA	Personal interview	District level schedule -7, 8 A, B, C, D, E Taluk level schedule -5

BACKGROUND

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
		3. How the NGOs are involved in ATMA?	planning decision making & implementation			
B4	Farmer to farmer extension	1. How many farm schools have been formed 2. How many farmers are involved?	Participating farmers in farm schools	PD/DPD	Personal interview	District level schedule - 18(vii)
B5	Research-Extension-Farmer linkages.	1. How many farmer scientist interactions have been conducted 2. How many joint visits by the scientist and extension personnel have been made?	Number of: - farmer scientist interactions, Joint visits by scientists & extension personnel	PD/DPD Allied sectors	Personal interview	District level schedule - 14 A, B, C, D
B6	Training & capacity building of farmers.	1. How many trainings & Capacity buildings have been conducted? A) Interstate state B) with in state C) with in district 2. How many farmers are involved in these trainings? 3. How many trainings & capacity buildings have been conducted by other Departments?	Number covered trainings, farm information	PD/DPD	Personal interview FGD at taluk level-allied sectors	Schedule for field activity – A I,II,III
B7	Capacity building of human	1. How many ATMA personnel & officials of allied sectors are trained 2. What topics covered under the	Number covered trainings, EVS, farm information	SAMETIS	Personal interview FGD with taluk officials	Schedule for SAMETI -1,3,5

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
	Resources	training? 3. Whether the subjects covered suit the ATMA requirement?	and dissemination.		– allied sectors	
C. EFFICIENCY OUTPUT						
C1	Effectiveness of various committees	1. Which year the committees are formed? 2. How many meetings conducted? 3. How many SC/ST & Women members are involved?	Formation of different committees as per ATMA guidelines, number of meetings held and decisions taken	SNO PD/DPD ADA	Personal interview	State level schedule -6 District level schedule -8 A, B Taluk level schedule -6A, B
C2	Support of SAMETI & KVK	1. Has SAMETI complied with the requirement in the guidelines 2. Whether the KVK has performed the duties assigned under ATMA	Extent and type of support in planning & implementation of ATMA activities	PD/DPD SAMETI	Personal interview	District level schedule -8(c) Schedule for SAMETI-2
C3	Performance of farmers 'groups & Food security groups.	1. Are the farmers groups formed as per norms prescribed? 2. Are they involved in ATMA activities? 3. How many are functioning	Number of functional farmer groups, formation as per guidelines and activity of each group	PD/DPD ADA	Personal interview	District level schedule -5,5A Taluk level schedule -2, 2B
C4	Exposure visits and awareness generated	1. How many exposure visits made A) Interstate state B) With in state	Number, place, time & subjects of exposure visit and improvement in	PD/DPD ADA	Personal interview	Schedule for field activity – B I, II, III

BACKGROUND

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
C5	Number of Women/SC/ST/OBC farmers benefitted	C) With in district	the knowledgebase of the farmers			
		2. Which exposure generated more awareness?				
		1. How many Women/SC/ST/OBC farmers benefitted under ATMA activities	Number involved in trainings, exposure visits demonstrations	PD/DPD	Personal interview	District level schedule -6 Secondary information
		2. What are the activities they are involved?	farm schools field visits committees at state, district and taluk levels.			
		3. How did ATMA facilitated/influenced women to participate in the activities				
C6	Achievement of physical and financial targets	4. What is the role of women in ATMA activities?				
		5. What is the effect of ATMA intervention on women participants				
		1. Have the physical & financial achievements made against the targets?	Percentage of achievement in different cafeteria of activities.	PD/DPD ADA	Personal interview	District level schedule -3,9 Taluk level schedule -1,4 Secondary information
		2. Percentage of achievement in different activities?				
		3. What is the physical & financial achievement of ATMA activities in other				

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
C7	Awards, success stories & Best practices.	<p>Departments?</p> <p>1. How many awards are given at State level, district level & taluk level?</p> <p>2. How many success stories documented and distributed to farmers?</p> <p>3. What are the best practices followed in ATMA?</p> <p>4. How many awards given in each sector?</p> <p>5. How many success stories have been brought out by other Departments?</p> <p>6. How many best practices have been documented by other Departments? Any case studies?</p>	Number involved for awards at state, district and taluk, number of success stories brought out and distributed to farmers & best practices adopted by beneficiary farmers	PD/DPD ADA	Personal interview	District level schedule - 10,11,12,12(A) Taluk level schedule -9,10
D)NORMS AND THEIR ADEQUACY						
D1	Preparation of the action plans	<p>1. Have the Annual Action Plans being prepared at</p> <p>a. 1)Village level</p> <p>b. 2)Taluk level</p> <p>c. 3)District level</p>	Time of preparation of Annual action plans at village, taluk and district	PD/DPD ADA	Personal interview	District level schedule -2,4 Taluk level schedule -3

BACKGROUND

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
		d. 4) State level 2. Whether these action plans meet the requirements of the concerned taluks. 3. Are they prepared in time and approved by the concerned? 4. If there was delay in the process, what are the problems	levels, approval by different committees.			
D2	Establishment of the Committees	1. Are the committees established as per the guidelines? 2. Which year they were formed? 3. How many meetings held during the year?	Formation of farmers' advisory committees required at state, district and taluk levels & their functioning	SNO PD/DPD ADA	Personal interview	State level schedule -6 District level schedule -8A, B Taluk level schedule -6A, B
D3	Convergence across the Departments	1. Which are the Departments involved in ATMA activities? 2. What sort of convergence has taken place? 3. If no convergence -Reasons 4. Who are all the officers involved in bringing convergence among different Departments?	Number of line Departments involved in convergence with ATMA activities and their effective involvement in planning and implementation	PD/DPD ADA	Personal interview & FGD	District level schedule - 18(vii) Taluk level schedule 11(ii) Checklist for FGDs
D4	Information and	1. What are the Information &	Use of ITD	PD/DPD	Personal	District level schedule -13A,

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
	communication strategies	<p>communication strategies used?</p> <p>2. Are they appropriate to the taluk & district?</p>	<p>component like display boards, Pico projectors, low-cost films, and hand-held devices, kala wall jathas, posters etc. by ATMA personnel.</p>		interview	B, C Secondary data
D5	Capacity building and human resource development	<p>1. Was the curriculum for the trainings developed before the start of trainings?</p> <p>2. Does the curriculum suit all the sectors?</p> <p>3. Were the trainings conducted as per curriculum & time?</p>	<p>Number of programmes conducted and attended by ATMA personnel and staff of line Departments.</p>	SAMETIs	Personal interview	SAMETI schedule -1,3
D6	Resource allocation for NGOs, ST/SC/Women farmers and for beneficiary-oriented activities.	<p>1. How much of the resource allocated to NGOs involved in ATMA activities?</p> <p>2. What is the Percentage of allocation to SC/ST & Women farmers</p> <p>3. How much of the resources have been allocated to these</p>	<p>Amount allocated per year for these categories and its utility.</p>	PD/DPD ADA	Personal interview	District level schedule - 7,7(a) Taluk level schedule -5

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
		categories across the Departments				
E) PROCESS/ IMPLEMENTATION						
E1	Review of implementation process and time lines	<ol style="list-style-type: none"> When the ATMA activities start in the Taluk? Do they start before or after the AAPs? What is the timeline of implementation process 	Extent of adherence to norms at different levels & time of the year.	PD/DPD ADA	Personal interview	District level schedule -2.4 Taluk, district level schedule -3
E2	Farmers' groups formed across the sectors	<ol style="list-style-type: none"> Which sectors have formed the farmers groups? If some sectors have not formed - reasons? 	Number formed in different sectors	PD/DPD ADA	Personal interview	District level schedule -5A Taluk level schedule -2B
E3	Training programmes and exposure visits – Review of low performing districts	<ol style="list-style-type: none"> Whether trainings and exposure visits made at appropriate times? Which districts have performed better? What are the reasons for low performance? 	Number conducted as per AAP and causes for low performance	PD/DPD ADA	Personal interview	Schedule for field activity -A I,II,III BI,II,III Secondary data
E4	Participation of NGOs	<ol style="list-style-type: none"> Which activities have been assigned to NGOs? Are the NGOs performing as per guidelines? How you will assess the 	Number of NGOs involved & the activities involved.	PD/DPD ADA	Personal interview	District level schedule -7 Taluk level schedule -5,

Sl. No	Key Evaluation Questions	Sub Question	Indicator	Data Source	Data Collection method	Data collection instrument/Questionnaire
E5	Involvement of different stakeholders	participation of NGOs in implementation process? 1. Whether the involvement of different stakeholders in the process is as per guidelines?	Number of different stakeholders involved & mode of involvement	PD/DPD ADA	Personal interview & FGD with Taluk level	District 18-vii) Taluk schedule ii) Secondary data FGD checklist
E6	Performance of SAMETIs	1. What is the time line of the activities performed at SAMETIs 2. In what other activities SAMETIs are involved?	Based on Assessment of trainings conducted, time of the year and topics covered & coverage of trainees as per plan	SAMETIs	Personal interview	SAMETIs schedule secondary data

CHAPTER -3. REVIEW OF LITERATURE

The literature review presented below covers ATMA scheme, evaluation studies – India and Karnataka specific.

Evaluation Studies

1) Extension functionaries of Agricultural Technology Management Agency (ATMA) are the authorized personnel to help the farmers by transferring technology from research station to them. Hence, they play an important role in planning & implementation of ATMA. A number of evaluation studies are devoted to the constraints faced by the extension functionaries and other stakeholders. A few studies assessing the impact of ATMA are also reviewed in the following part.

India: Das and Borua¹ have identified a number of constraints of the extension functionaries in Assam such as i) lack of training on new technologies; ii) lack of knowledge on efficient and appropriate methodologies in extension activities; iii) lack of cooperation from senior colleagues; iv) delay in availability of salary; v) lack of orientation training for newly recruited staff; vi) non-availability of agricultural inputs at an affordable price etc. The suggestions offered by the Extension functionaries for improving their role performance include

- To provide training on new technologies,
- To prepare proper programme planning,
- To develop internal organizational structure, and
- To dispense salary in time.

Naidu et al studied the constraints faced by the stakeholders of ATMA in Andhra Pradesh². A sample of 60 Extension Officials revealed i) Inadequate financial support under the ATMA scheme; ii) Additional staff requirement at different levels; iii) Approval and release of fund is delayed, as the top three constraints faced by them. On the other hand a sample 120 farmers mentioned i) unavailability of production inputs at the farmer's doorstep; ii) lack of trainings on improved technologies; and iii) Voice of farmer representatives have been often neglected as the leading problems faced. Based on a sample of 121 farmers and 67 Extension Functionaries (Block Technology Managers and Assistant Technology Managers) **Neelam and Kadian**³ explored the constraints in three districts of Andhra Pradesh under ATMA. Farmers mentioned i) sporadic visits of the extension functionaries and ii) lack of confidence in operating effective group without external support as the major constraints.

¹ Priyanka Das and Sajib Borua. (2017). Asian Journal of Agricultural Extension, Economics & Sociology. 17(1): 1-7. [www.journalajaees.com > index.php > AJAEES > article > download](http://www.journalajaees.com/index.php/AJAEES/article/download)

² Naidu et al (2016). Constraints Faced by Stakeholders under Agriculture Technology Management Agency (ATMA). Journal of Extension Education. Vol. 28 No. 4, 5768-5774. <https://extensioneducation.org/index.php/jee/article/view/134>

³ Neelam and Kadian. (2018). Constraints under ATMA Extension System and Suggestions For Its Better Performance: An Explorative Study of Stakeholders of ATMA in Andhra Pradesh, India. Plant Archives, Vol. 18, No. 1, pp. 190-194. [http://www.plantarchives.org/PDF%20181/190-194%20\(PA3%203930\).pdf](http://www.plantarchives.org/PDF%20181/190-194%20(PA3%203930).pdf)

Inadequate conveyance allowances, lack of adequate time to keep in touch with CIGs followed by extension persons under ATMA were not trained as trainers are the prime constraints faced by block technology teams.

A Study of impact of ATMA in Pilot districts of Bihar⁴ observed while the Training and Visit (T&V) extension system was effective in disseminating *Green Revolution* technology, especially in the high potential, irrigated areas, it had little effect on the productivity and incomes among farmers in rain fed areas. The impact was assessed as i) process change and ii) farm level changes. Final outcome assessed observed an improvement of quality of life and empowerment of farming community, including women leading to the sustainability of the approach/ system and equity. Some of the important impact indicators used in the study are i) Absolute income and net income gain in project and non-project districts; ii) Adoption ratio of ATMA field programme-training activities; iii) Present farmers adoption new technologies and practices in project districts; iv) Cropping intensity; v) Benefits of adopting new technologies and others.

A study of the Knowledge about ATMA among beneficiaries and staff in northern Karnataka⁵ found that more than half of the beneficiaries (54.4 percent) had medium level of knowledge where as 45.6 percent had high level of knowledge. Knowledge of beneficiaries was positively and significantly influenced by independent variables like education, mass media participation, number of trainings undergone, extension contact and innovativeness of the beneficiaries, whereas, age was negatively significant.

In case of ATMA staff, results showed that majority of respondent staff (93.33percent) had high level of knowledge and the remaining 6.7 percent medium level. Knowledge of staff was positively and significantly influenced by independent variables like age, experience and number of trainings undergone.

A study of attitudes based on a sample of 90 extension field functionaries of six districts of Karnataka⁶ viz. Bengaluru Rural, Bengaluru Urban, Chickaballapura, Kolar, Tumakuru and Ramanagara in 2016-17, revealed that 37percent had most favorable and 28 percent favorable and the remaining 35percent least favorable attitude.

The top THREE ranked attitude statements, along with their mean scores are shown below.

S. NO.	ATTITUDE STATEMENT	RANK	MEAN SCORE
1	ATMA is a well-structured programme compared to any other programme	1	4.06
2	ATMA creates positive impact on agricultural development in Karnataka	2	4.04

⁴ Singh et al. (2013). Agricultural Technology Management Agency (ATMA): A Study of its Impact in Pilot Districts in Bihar, India. <https://www.researchgate.net/publication/235975667>

⁵ Hotakar et al (2019). Knowledge about ATMA among beneficiaries and staff in northern Karnataka. *J. Farm Sci.*, 32(1): (95-98). <http://14.139.155.167/test5/index.php/kjas/article/viewFile/9136/9377>

⁶ Shamshadunnisa et al (2017). Attitude of Extension Field Functionaries towards Agriculture Technology Management Agency in Southern Karnataka. *Int. J. Curr. Microbiol. App. Sci* (2018) 7(11): 2547-2551.

3	ATMA does good job for improving the livelihood status of farmers	3	3.98
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The study concludes that there is low level of participation by small and marginal farmers in ATMA, even farmers are not aware about ATMA and there is no proper coordination among line departments, which were ranked 12, 13 and 14 with mean scores of 3.01, 2.84 and 2.82.

Research article focused to show the process flow of convergence activity of ATMA in delivering extension services. A sample size of 120 extension functionaries under ATMA was selected as respondents. Focus Group Discussions (FGD) and personal interviews were adopted in collecting required data⁷

Findings: -

The extension reform in ATMA was intended to bring convergence between extension and research systems for the effective delivery of extension services. The process flow of convergence activity at different stages as followed by line departments and research institutions was clearly witnessed. But a well-established monitoring system with better convergence of the stakeholders was lacking and standardized evaluation procedures or technique were not developed or adopted for evaluating convergence of ATMA.

The document prepared by NABARD Consultancy Services (NABCONS) Pvt. Ltd for the Mechanization and Technology Division, Department of Agriculture & Cooperation, (MoA), New Delhi based on the field study.⁸

Response of the farmers who attended the demonstration of post-harvest machineries was mixed. A significant number of beneficiaries were not satisfied with the way the demonstration was carried out and felt that there is scope for improvement in the future. They felt a need for increase in the duration of demonstration on the field. Additionally, a demand driven approach on demonstration of equipment based on the crop would be more effective towards increasing the adoption rate which will ultimately result in reduction in post-harvest losses.

Demonstration is an important activity and its continuation is vital in order to educate farmers on the use of post-harvest machines to reduce the losses at the farm level.

International Journal of Agriculture Sciences ⁹The extension reform ATMA was intended to bring convergence between extension and research systems for the effective delivery of extension services. The process flow of convergence activity at different stages as followed by line departments and research institutions was clearly witnessed. But a well-established monitoring system with better convergence of the stakeholders was lacking and standardized evaluation procedures or technique were not developed or adopted for evaluating

⁷ **International Journal of Agriculture Sciences** ISSN: 0975-3710&E-ISSN: 0975-9107, Volume 9, Issue 35, 2017, pp.-4524-4527. Available online at <http://www.bioinfopublication.org/jouarchive.php?opt=&jouid=BPJ0000217> Received: July 12, 2017; Revised: July 14, 2017; Accepted: July 15, 2017; Published: July 30, 2017

⁸**Promotion & Strengthening of Agriculture Mechanization through Training Testing and Demonstration**
<http://agricoop.nic.in/sites/default/files/PSAMTTD2014.pdf>

⁹ ISSN: 0975-3710&E-ISSN: 0975-9107, Volume 9, Issue 35, 2017, pp.-4524-4527.
<http://www.bioinfopublication.org/jouarchive.php?opt=&jouid=BPJ0000217>

convergence of ATMA

Constraints under ATMA extension system and suggestions for its better performance: an explorative study of stakeholders of ATMA in Andhra Pradesh, India Hema Sarat Chandra Neelam¹ * and K.S. Kadian¹⁰

Lack of training in group facilitation for extension functionaries is one of the major problems need to address by the sufficient policy changes for ATMA. Capacity building in the form of motivational trainings is essentially required from ATMA to improve the performance of group led extension. Intensive training of extension functionaries and exposure visits of CIG members should be a regular practice to infuse greater volume of morale and self confidence among both of them. The trainings from SAMETI and MANAGE must be strengthened, planning for continuous training must be conceived by the policy makers to keep extension functionaries and farmers abreast with the technology, communication, morale and self-confidence. Further, the suggestions by the extension functionaries and farmers need to consider in obtaining the best from the stakeholders. Financial convenience to the extension functionaries must be addressed to improve the timely extension work. In time release of funds, salaries and conveyance allowances need to look over to improve morale of the stakeholders.

Previous studies of concurrent monitoring and evaluation in Karnataka State

Concurrent Monitoring and Evaluation of ATMA scheme in Karnataka State during the year 2015-16 & 2017-18 conducted by IN-RIMT,¹¹

STEM has conducted, Internal Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2016-17 in Bangalore and Gulbarga Revenue Divisions¹²

STEM also has conducted a similar concurrent evaluation for the Mysuru and Belagavi Revenue Divisions.

Findings/ outcomes of other studies in Karnataka State

Year-2016-17

1. The SREP should be revisited and revised as early as possible on priority in all the districts.
2. The annual action plans of all the districts need to be prepared based on bottom-up approach.
3. The farmer-oriented activities, farm information dissemination and research-

¹⁰ *Plant Archives* Vol. 18 No. 1, 2018 pp. 190-194 *ISSN 0972-5210*

¹¹ <http://kea.karnataka.gov.in/indexevescom.html?q=en/evaluation-Study/Completed>

¹² STEM (2018). Internal concurrent monitoring & evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka state during 2016-17.

Extension-Farmer linkages activities should be location specific to each district and taluks.

4. Bringing down the administrative expenditure to the prescribed 28 percent of the total allocation in all the districts.
5. The prescribed meetings of ATMA GB, TLAIC should be conducted regularly as prescribed in the guidelines in all districts.
6. Representations of women farmers in the DFAC & BFACs need to be provided to the extent of 30 percent in all the districts
7. Allocation of resources to allied sectors should be ensured as per the annual action plans for the taluks and districts and the ATMA staff at taluks and hobli level should be instructed to participate, coordinate and converge the activities of ATMA with the activities of the allied sectors.

Year-2015-16 conducted by IN-RIMT

1. District level committees like DFAC and DLAIC are constituted prior to 2017-18 needs to be reconstituted.
2. Taluk level committees like BFAC and BLASC are also constituted prior to 2017-18. Meetings of these committees are held in all the sample taluks.
3. Performance of SAMETI's training to extension functionaries of taluks and districts has been conducted. Many more activities approved in the annual action plans are yet to be implemented including refresher trainings to ATMs and BTMs.
4. Participation of scientists from Agricultural Universities across the state in ATMA programmes inadequate, needs to be strengthened.
5. There is urgent need for imparting refresher / orientation training to ATMA workers for better understanding the scheme guidelines & implementation and their objectives.

Major Findings: - 2017-18 Conducted by IN-RIMT

1. Non-participation of heads of departments in ATMA committee meetings
2. Inadequate scientific involvement in ATMA activity
3. Non / inadequate review of ATMA activities at each level at regular intervals.
4. Release of grants is to be based on cafeteria of activities.
5. Inadequate / non-participation of department officials in training programmes / FFS, demos, FGDs, field days is to be made mandatory.
6. Diversion of funds to long distance tour instead of location specific achievements leading to financial drains.

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CHAPTER -4. EVALUATION METHODOLOGY

4.1 Research design

Both quantitative and qualitative method of data collection were followed.

- Three hypotheses were formed to the study.

Hypothesis – 1.

Null Hypothesis: There is increase in adoption of improved farming practices of beneficiary farmers after participating in activities conducted by ATMA.

Alternate Hypothesis: There is no increase in adoption of improved farming practices of beneficiary farmers after participating in activities conducted by ATMA.

Hypothesis – 2.

Null Hypothesis: Change in the cropping pattern of beneficiary farmers after ATMA interventions.

Alternate Hypothesis: There is no change in the cropping pattern of beneficiary farmers after ATMA interventions.

Hypothesis – 3.

Null Hypothesis: Increase in the income of beneficiary farmers after ATMA interventions.

Alternate Hypothesis: There is no increase in the income of beneficiary farmers after ATMA interventions.

The hypothesis was tested by quantitative data.

- The farmers were selected by random method with the help of BTM/ATMs.
- Qualitative data collected from officials and farmers by conducting FGDs.

LOG FRAME

	OVI	MOV	Assumptions
IMPACT 1. Sustainable increase in yield/Acre. 2. Economic status of farmers improves.	Increase in yield/acre of crops Increase in income	Interviews with beneficiary farmers. Interviews with beneficiary farmers.	Adoption of technologies and practices promoted under ATMA lead to improvement in yield/acre and income.
OUTCOME 1. Farmers adopt	Percentage of	Interview with beneficiary farmers	Awareness created among farmers

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	OVI	MOV	Assumptions
<p>suitable technologies and better practices on their farms.</p> <p>2. Farmers change cropping pattern.</p>	<p>farmers adopting technologies introduced under ATMA.</p> <p>Type of cropping pattern changed.</p>	<p>and demonstration farmers.</p> <p>Data collected from district & taluk officials.</p> <p>Interviews with beneficiary farmers</p>	<p>through cafeteria of activities motivate farmers.</p> <p>Adoption of technologies facilitate change in cropping pattern</p>
<p>OUTPUT</p> <p>1. Farmers are exposed to improved technology & practices</p> <p>2. Farmers interact with achiever farmers and scientists</p>	<p>Number of training programmes, exposure visits, demonstrations etc. conducted.</p> <p>Number of farm school and scientist farmer interactions conducted.</p>	<p>Data collected from district and taluk officials, SAMETI.</p> <p>Interviews with beneficiary farmers</p>	<p>Awareness creation activities are conducted as per guidelines'</p>
<p>ACTIVITIES</p> <p>1. Trainings to farmers, ATMA and extension personnel.</p> <p>2. Exposure visits to farmers.</p> <p>3. Demonstrations of new technologies and practices.</p> <p>4. Farmer-scientist interactions</p> <p>5. Farm schools etc.</p>	<p>Number of farmers, ATMA personnel and extension personnel exposed to the cafeteria of activities.</p>	<p>Data collected from districts, taluks officials and SAMETI.</p>	<p>Action plans are prepared on need based and as per guidelines.</p>
<p>INPUTS</p> <p>1. Trained ATMA functionaries at different levels.</p> <p>2. Critical inputs for demonstrations.</p> <p>3. Bottom-up planning and location specific technologies.</p>	<p>ATMA functionaries trained at SAMETIs.</p> <p>Critical inputs given to demonstration farmers.</p> <p>Annual action plans prepared and process followed.</p>	<p>Data collected from SAMETIs.</p> <p>Data collected from districts & taluk officials</p>	<p>ATMA functionaries trained in time and appropriate technologies.</p> <p>Critical inputs are made available in time.</p> <p>Annual action plans are prepared in time and are need based.</p>

Note: OVI-Objectively verifiable Indicator; MOV: Means of Verification

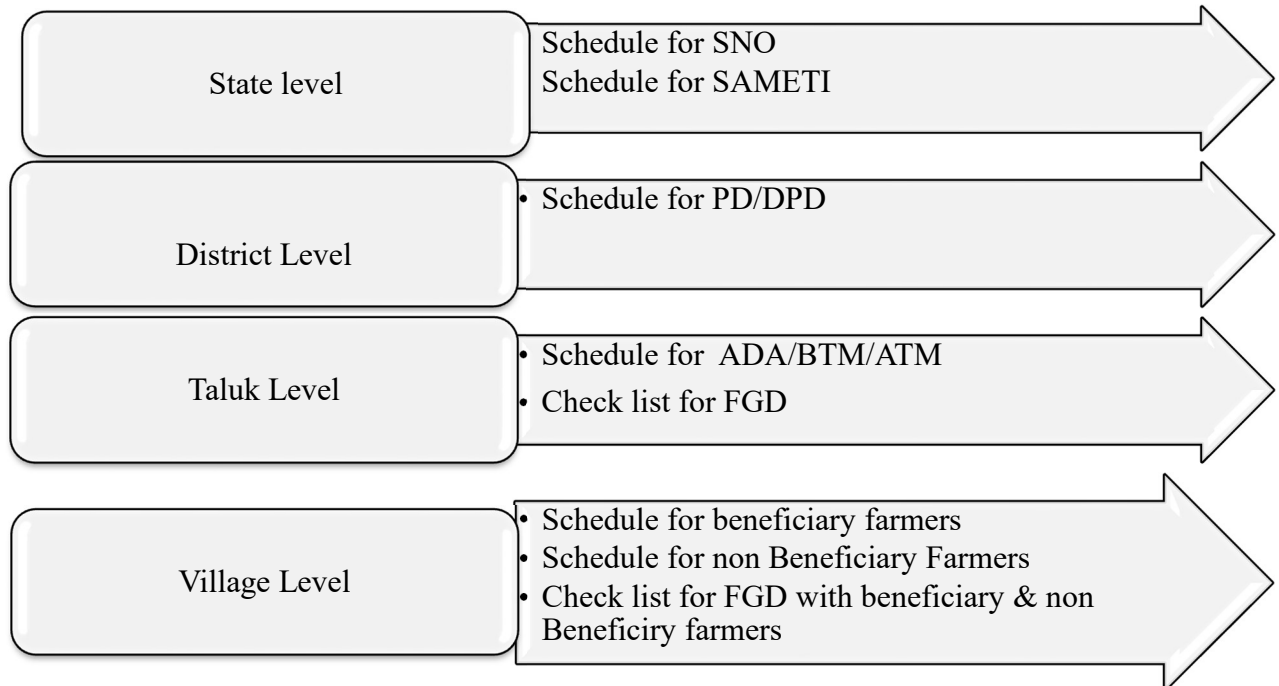
Data collection tools and techniques

The ATMA scheme activities are being planned and implemented at five levels viz: State, SAMETIS, District, Taluk and Village levels throughout the state.

Source of Information

Data sources and method of data collection are explained below.

STEM prepared 8 sets of schedules & 2 FGDs checklists, for collecting necessary data to answer the evaluation questions listed in the ToR, as shown below.



Below mentioned tools are prepared to collect the data from different stakeholders.

1. Schedule for state level activities
2. Schedule for district activities
3. Schedule for taluka activities
4. Schedule for detailed field activities
5. Schedule for SAMETI Activities
6. Schedule for beneficiary farmers
7. Schedule for demonstrations-income generation
8. Schedule for control village
9. Check lists for FGDs

Templates of all data collection instruments attached as Annexure-3

Control farmers: For study purpose, data was also collected from about 90 non-beneficiary farmers in the villages in sample taluks.

To assess the evaluation questions, secondary data from the Directorate of Agriculture at State level, office of the, Deputy Director of Agriculture (Project Director) at district level and Assistant Directors of Agriculture in sample taluks have been collected. Also, data has been collected from SAMETI (S) UAS, Hebbal located at Bengaluru & SAMETI (N) located

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20 at UAS, Dharwad.

The Primary data at taluk and village levels also has been collected.

The secondary & primary data collected in one round.

Focus group discussions have been held at taluk and village levels with concerned officers and farmers.

Sampling Frame and Size

All the 29 districts form the sample at district level. For taluk level samplings, one taluka from each district has been selected as a sample taluka and detailed information has been collected. In this sample taluka, collection of field data from the beneficiary farmers has been done. Ten percent of beneficiaries wherever the beneficiaries are more than 10 in each activity or actual number of beneficiaries wherever beneficiaries are less than 10 have been interviewed & their responses were collected in a pre-designed format.

Table 3: Sample size and distribution – by stakeholder group

Sl No	Level	Stake holder group	Number of Sample size	Achieved
1	State	State Nodal Officer	1	1
		SAMETI	2	2
		SAU	4	4
		KVK	29	29
2	District	PD	29	14
		DPD	21	13
3	Taluk	AD/BTT/BTM/	29	19
		ATM	29	19
		Allied sectors	29 sample taluks	09
4	Village	Beneficiary farmers 10*29Districts	290	1366
		Control farmers 5*29 (1 village per sample taluk)	145	90

Institutional Aspects:

Secondary data, monthly progress reports, approved action plans and other such data which is essential for the study has been collected from the Directorate of Agriculture, Bengaluru personal contacts and interviews with the concerned officers has been done whenever necessary.

Data regarding the plan of action of SAMETI (S) & SAMETI (N) and the progress made under each item has been collected and personal contacts have been done with the officers of SAMETI(S) UAS, Bengaluru.

The secondary data, monthly progress reports, details about the annual action plans, farmer committee meetings and proceedings and other relevant details as necessary has been obtained from the, Deputy Director of Agriculture (Project Director) from all the 29 districts of Bengaluru, Mysuru, Kalaburagi & Belagavi Revenue Divisions.

The secondary data, progress reports, annual action plans, details about the committees, their

meetings and such other information have been obtained from the office of the Assistant Directors of Agriculture in all the 29 sample taluks. Personal discussions with the Assistant Director of Agriculture, Block Technology Managers and Assistant Technology Managers and officers of allied sectors have been held at 19 districts where the team has physically visited.

Data Collection and Field Survey

As already explained, the study team have visited the offices and collected all the secondary data and discussions have been held with the officers to know about their views and opinions about the activities of the scheme. Simultaneously, the team have also visited the villages where ATMA activities have been implemented, visited the farmers' fields wherever necessary and interviewed the concerned farmers to elicit information about their views and opinions about the participation and performance of the activities. In the 19 sample taluks, data have been collected from the officers of ATMA and allied sectors and recorded in the questionnaire formats designed for this purpose. Field data and personal interviews with the beneficiary farmers have also been recorded in the questionnaire format designed.

At village level in sample taluks 1366 beneficiary farmers have been contacted to collect data. Out of the 1366 beneficiary farmers, 945 beneficiary farmers have been contacted personally and 421 beneficiary farmers have been contacted over phone.

Focused Group Discussions:

Focused Group Discussions have been held at taluk level in the office of Assistant Director of Agriculture with officers of allied sectors. Focus group discussions were held in 19 sample districts. Also, focus group discussions with beneficiary farmers have been conducted in 19 villages of 19 sample taluks.

Data Analysis

The data / information collected from various sources was tabulated, collated, processed, analyzed and interpreted in accordance with the Terms of Reference and guidelines of ATMA and conclusions were drawn.

- ❖ Data from farmers entered in MS excel and analyzed using MS excel.
- ❖ Qualitative data analyzed based on the notes taken during the interviews/ FGDs.

Simple percentage analysis was carried out to analyze the data.

4.2 Limitations of the evaluation study

1. Initially at the time of inception report it was decided to collect the data from 10 percent or 10 beneficiaries whichever is less from the total number of all beneficiaries in the activities in each sample taluks. Subsequently on 20th November 2020, STEM was asked to collect the data from 10 beneficiaries or 10 percent of the total beneficiaries whichever is less for each activity in the selected taluks.
2. Frequent change of ATMA functionaries at taluk level affected the availability of beneficiary data and different activities.
3. Availability and accessibility of data from line departments: - A large number of

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evaluation questions required data from the Department of Agriculture at taluk level to state level and SAMETIs. Hence, presentation of analysis of data presented in the report is based on the extent and relevance of the data made available to STEM by the concerned departments.

4. District and taluk level officials were occupied with the implementation of departmental schemes and programmes during March & April 2021. Hence, it was informed by the concerned officers to postpone the visits to the district and sample taluks.
5. Primary data from 19 districts and sample taluks were collected by the study team by personally visiting the districts, taluks and beneficiary farmers. At this point of time there was outbreak of Covid-19 in the districts. Hence, it was suggested by KEA to cover the collection of data from beneficiary farmers in the remaining 10 districts and sample taluks over telephone/mobile. The collection of data through telephone/mobile was hampered and delayed due to disruption of contact signals in the remote villages. Also, the contact of the beneficiary farmers was hampered due to their non-availability at the time of establishing contact with them. This happened in the 07 districts of Belagavi RD and 03 districts of Kalaburagi RD.
6. Starting from March 2020, the progress of evaluation study was often disrupted due to Covid-19 pandemic situation across the State.

CHAPTER-5. BASIS FOR EVALUATION

The centrally sponsored scheme ATMA is being implemented in the State since 2005-06. The guidelines were modified during 2010 and further modified during 2014 & 2018. The ATMA guidelines 2018 has an element of monitoring and evaluation of the activities during the year at periodic intervals through concurrent monitoring & evaluation in all the 29 districts of the State. It involved the monitoring and evaluation of all the processes and activities. The data generated through the evaluation can be used for implementation of the Programme by focusing on mid season / term corrections.

The modified extension reforms scheme introduced in 2010 to strengthen the extension machinery and utilizing it for synergizing the interventions under the schemes under the umbrella of ATMA. ATMA is not a replacement of the old extension system of agriculture. It was introduced only to strengthen the existing extension system of the State governments. The monitoring & evaluation of the schemes helps the State governments and the Central government also to make necessary mid-season / term correction in planning and implementation of the scheme

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CHAPTER -6. RESULTS AND DISCUSSIONS

6.1 Norms and their adequacy

6.1.1 Preparation Annual Action Plan (AAP)

The ATMA guidelines 2018 state as follows:

- A. SREPs will form the basis for formulation of Block Action Plans (BAPs) on an annual basis. Block action plans are then consolidated at the district level to prepare District Agriculture Action Plans (DAAPs).
- B. The DAAPs will be consolidated in the form of State Extension Work Plan (SEWP) which then forms a part of the State Agriculture Plan (SAP).
- C. Annual action plan should be prepared at: a) Village level b) Taluk level c) District level d) State level.

The annual action plan under ATMA scheme has to be prepared based on the gram panchayats and villages selected by the BTT in consultation with BFAC. Bottom-up planning and extension gaps identified in the district SREPs need to be taken into account in the preparation of block action plans.

On perusal of the secondary data submitted by the Project Directors at district level and Assistant Directors of Agriculture at taluk level indicate that no such procedure has been followed in majority of the districts and taluks.

The Director of Agriculture in Karnataka in his letter dated 14-05-2019 has communicated the administrative sanction to the annual action plans of the state for the year 2019-20 to all the Joint Directors of Agriculture and Project Directors (ATMA) in the State. District wise and activity wise physical and financial targets as approved by the state level sanctioning committee has been communicated.

The secondary information submitted by the Project Directors (ATMA) of the 29 districts and Assistant Director of Agriculture of 29 sample taluks have stated that the approved district wise annual action plan sent by the Director of Agriculture has been divided among the number of taluks in each district and sent to the taluks for implementation. This has been confirmed by the Project Directors, Deputy Project Directors, Assistant Directors of Agriculture and Block Technology Managers during interactions. Approval of the ATMA governing board at district level and BTT at taluks level has been sought by the concerned officers

The cafeteria of activities to be planned and implemented in the state has been divided as state level activities and district level activities. The state level activities are implemented at state level by the Nodal officer at the Commissionerate of Agriculture in Bengaluru. The district level activities are planned at district level and taluk level. The district level activities are planned and implemented by the concerned Project Directors (ATMA) in each district under the overall supervision of the Joint Director of Agriculture with the help of Deputy Project Director (In some Districts), Block Technology Manager (BTM) and ATMs in each

taluk and the taluk level officers of Horticulture, Sericulture, AH, Fisheries and Forestry.

The taluk level activities planned and implemented at taluk level has 4 major components.

1. Farmer oriented activities.
2. Farm information dissemination.
3. Agricultural technology refinement, validation and adoption
4. Innovative activities.

Under the 'Farmer Oriented Activities', the sub-components are

1. Trainings.
2. Demonstrations.
3. Exposure visits.
4. Farmer groups.
5. Farmer awards.

Farm Information Dissemination:

District level exhibitions covering aspects of Agriculture, Horticulture, Sericulture, Fisheries have been organized to highlight and spread the latest technologies mainly based on local needs.

Farm information needs of the farmers in the taluks has been done by printing leaflets, folders, posters, block boards, low-cost publication based on the local needs of the farmers.

Information about the latest technologies, practices, pertaining to the taluks has also been advertised in local newspapers, television and also social media.

Technology packages in digital form has also been developed for local technologies and has been shared through IT networks in some districts.

AAP prepared in time and approved by the concerned

Out of 29 districts, 08 districts namely Chikkaballapur, Chitradurga, Chamarajanagar, Chikkamagaluru, Udupi, Bidar, Belagavi and Uttara Kannada have attempted to prepare the annual action plans of 2019-20 at the taluk level and submit the same to the Project Directors of concerned districts in the months of April, May and June 2019. These annual action plans have not been submitted to the State Nodal Officer, ATMA.

The district annual action plans have been approved by the State Level Sanctioning Committee (SLSC) on 15-05-2019 and thereafter these approved action plans have been sent to the Project Directors for implementation. Based on these action plans, the component activities have been sub-divided among taluks at district level and have been sent to Assistant Directors of Agriculture of the taluks for implementation.

Normally the annual action plans have to be prepared at taluk level based on the inputs and suggestions from the officers of allied sectors, recommendations in SREP and BFAC. This process has not been followed. The AAPs should be need based and cater to the needs of farmers. The AAPs should be prepared in the month of March-April of the year. They should be submitted to PD for his reviews and further submission to SNO for seeking approval of state level sanctioning committee. Information submitted by Project Directors and Assistant Director of Agriculture in sample taluks indicate that the AAPs have not been prepared in time in 21 districts.

Since the AAPs have not been prepared at taluk level based on the needs of the farmers and recommendations of BFAC and gaps identified in the taluks in SREP, the AAPs does not meet the requirement of the farmers of the taluks.

There has been delay in the process of preparation of AAPs at taluk level. The concerned Assistant Directors of Agriculture in the taluk and ATMA functionaries at taluks and district level have informed that they have simply followed the annual action plan approved at state level.

Prioritization of 4-5 key activities having impact on the productivity and income

The following results have emanated from the primary and secondary data made available.

1. Production technologies used: - During 2019-20 53.95 percent of the farmers have adopted improved production technologies as against 23.43 percent before 2019-20.
2. Technologies adopted: - 60 percent of the beneficiary farmers have adopted water saving irrigation technologies during 2019-20.
3. Factors influenced to use the improved technologies: - 32.87 percent of the beneficiary farmers have opined that ATMA trainings and awareness about new technologies/varieties have influenced them. Also, for 20.64 percent of the beneficiary farmers low cost of cultivations and better usage of natural resources have influenced them to use the improved technologies.
4. Extension methods used by ATMA: - Technology information and scientists' interaction have influenced 32.65 percent of the beneficiary farmers. Training of farmers has influenced 21.23 percent of the beneficiaries. Field visits and exposure visits have influenced 15.96 percent of the farmers. Thus, a total of 69.84 percent of the beneficiary farmers have opined that these ATMA activities have largely influenced them to adopt improved technologies.

The following key activities need to be prioritized during the preparation of annual action plans to have impact on the productivity, production of farmers and income.

- a) Trainings
- b) Exposure visits
- c) Demonstrations
- d) Farmer's scientist interaction
- e) Field visit

Suggestion for improvement in the annual action plans

While preparing the annual action plans the key factors responsible for the low productivity need to be identified based on SREP and necessary activities to address this issue to be prioritized including value addition of Agriculture and other produce specific to each taluk.

ATMA implementation with special emphasis on promoting region specific technologies and IFS models

The SREP should form the basis for preparation of annual action plans wherein the document identifies the gaps in the research and extension of each agro ecological situation and based on this research and extension priorities for each district and taluk should be planned in agriculture and allied sector activities.

This ensures promotion of region-specific technologies in agriculture and allied sectors.

The IFS model of agriculture development should form the basis in the region-specific technologies for augmenting and sustain the income of farmers.

6.1.2 The committees

Committees established

In pursuance of the number of mechanisms built into the ATMA scheme and to ensure effective co-ordination among the Departments of Agriculture, Animal Husbandry, Horticulture, Sericulture, Fisheries and Forestry, Various committees at state, district and taluk level have been constituted. These committees also consist of progressive farmers, achiever farmers, award winners of state, district and taluk levels, local NGOs, local representatives of input dealers. Committee members other than the local officers of the involved departments serve to offer their valuable knowledge and experience in their respective fields, so that a realistic and valuable planning and implementation is done in ATMA scheme. The composition and other terms of the committees are as below:

STATE LEVEL COMMITTEE

Sl. No	Committee	Composition	Term	Meetings in a year	Representation of SC, ST & Women
1	State Farmers Advisory Committee (SFAC)	Not more than 30 farmers One Progressive farmer who is an awardee farmer or trained farmer from Agriculture and allied sectors from each DFAC. Five national level awardee farmers. Director (Agri) Act as Chairman.	2 years	Quarterly	Out of the progressive farmers; 1/3 – women Adequate representation to SC/ST farmers

The composition and other terms of the SFAC during 2019-20 is as under

Total Members	Year of formation	SC, ST, Women farmers			Meetings conducted
		SC	ST	Women	
30	2019-20	4	1	9	2

As could be seen from the table, the committee has been reconstituted during 2019-20. That is after the issue of ATMA guidelines 2018.

The composition of the committee is as per guidelines. Two meetings have been conducted against four prescribed in the guidelines.

DISTRICT LEVEL COMMITTEES:

ATMA Governing Board

The composition and other terms of the ATMA GB is as under

Sl. No	Committee	Composition		Term	Meetings in a year	Representation of SC, ST & Women	
1	ATMA Governing Board (ATMA GB)	1	Total	24 members	Non official members: 2 years	Every Quarter	Out of non-official members, one third would be women.
		2	A. Official Members	12			
			B. Non official members	12			
		3	Member Secretary	Project Director (ATMA)			

District wise composition, year of formation, meetings conducted, and representation of SC, ST & women farmers are presented in the following table.

Table 4: District level committees

Sl. No	District	ATMA GB							DFAC						
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates
1	Bengaluru Urban	2019	2	1	1	2	Total Member:24 Nonofficial:6 members	05-09-19 & 06-01-20	2018	2	5	3	5	Yes. Members-25 Chairman of BFAC-Yes; KVK Coordinates-yes; Award winners-yes	21.06.2019 & 30.11.2019
2	Chikkaballapur	2019													
3	Chitradurga	2019	1	5	2	1	Yes, Total members-27; non-official-11 members	16-08-2019	2019		5	2	1	Total :27 Award winner-1 KVK-1	
4	Davangere	2018	1	2	3	1	Yes; Total :30 non-official-6	-	2019	2		2	7	Total 22 farmers	16-08-2019 27-01-2020
5	Kolar	2019	1	2		5	Yes. Total:19 Non official:9	16-01-2020	2019	1			4	Total: 26 members BFAC: 5 members KVK-1 Award winner-5	20-08-2019
6	Ramanagara	2019	0	4	1	4	Yes. Total:30;	-	2019	1				Total :24 members Chairman of	23-10-2019

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Sl. No	District	ATMA GB										DFAC				
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	
7	Shivamogga	2017-18	2	1	1		Yes. Total 20 Non-official-10 Yes	12-06-2019 & 21-12-2019	2017-18	2	6	4		BFAC-7 KVK-1 Award winner-4 Yes. Total:25 Awardees:3; yes, Chairman BFAC:12; KVK-1	12-06-2019 & 21-12-2019	
8	Tumakuru	2019	1	1	1		Yes. Total :25; Non official-02	22-08-2019	2019	1	3	1	6	Total 28 Members of BFAC-5, KVK-1 Awardees-1	22-08-2019	
9	Chamarajana gara	2019	2	1	1	1	Yes. Non official:5 Yes; Total: -21	26-06-19 10-01-20	2017	1	2	1	2	Yes. Total :27; BFAC Members-11 KVK-1; Awardees-4	26-06-2019	
10	Chikkamagaluru		1					03-10-2019								
11	Dakshina Kannada	2019	2	1	1	1	Yes. Total:30 Non official: -5	15-06-2019 & 07-12-2019	2018-19	2	6	2	7	Total:30; Chairman BFAC-05; KVK-01; Awardees-10	09-07-2019 & 15-10-2019	
12	Hassan	2019	2	1	4		Yes. Total :19 Non official-8	07-06-2019 & 15-06-2019	2019	2	3	1	8	Yes. Total:29 Chairman; BFAC; KVK-yes Award winner- Yes	31-08-2019 & 05-03-2020	

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Sl. No	District	ATMA GB										DFAC				
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	
13	Kodagu	2020	1	1	2	Yes. Total :22 Yes Non official:10	11-08-2019	2019								
14	Mandya	Since beginning of ATM A	2			Yes. Total 28: Non official member:1	12-07-2019 & 17-12-2019	01-08-2019	2	1		3	Yes. Total members-28; Award winners:5	29-08-2019 & 14-02-2020		
15	Mysuru	2017	2	1	2	Yes. Total 24: Non official member:10 Yes	18-09-2019 & 10-02-2020	2019	3	1	2	6	Yes. Total member:30 Chairman of BFAC-07; KVK-01; Awardee winner-4	15-06-2019; 31-10-2019 & 11-03-2019		
16	Udupi	2017	1		1	Yes. Total :22 non-official-6	28-08-2019	2018			1	1	Yes. Total:15; Chairman of BFAC-3; KVK-01; Awardees-07			
17	Bagalkot	2019	1	1	4	Yes. Total 26 Non official:13	21-12-19	2019	1		1	3	Yes. Total:22 Yes; Chairman of BFAC-1; KVK-01; Awardees-02. Members & women from Agriculture.			

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Sl. No	District	ATMA GB										DFAC				
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	
18	Belagavi	2019	1	1	1	3	Yes. Total:23 Non official:09	13-06-2019	2019	4	2	2	7	Horticulture sector livestock providers sector agro forestry, sericulture, Mahila Mandalas Yuvaka mandalas, input dealers ZP, TP, GP members etc.	13-09-2019; 16-10-2019; 25-01-2019 & 08-03-2019	
19	Dharwad								2019	1		1	2	Yes. Total 16; Chairman of BFAC-1; KVK-1; Award winner-0		
20	Gadag	2019	1	1	1	2	Yes. Total :25 Non official:6	15-06-19	2019	4	1	2	3	Total :16; Chairman of BFAC-4, KVK-1; Award winners-6	25-09-2019; 07-11-2019; 1-02-2020	

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Sl. No	District	ATMA GB										DFAC				
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	
21	Haveri	2019	1	1	1	2	Yes; Total :19; Non official:8	14-02-2019	2019	4	2	3	6	Yes. Total :15; Chairman BFAC-12; KVK-1; Award winner-2	11-07-2019; 13-01-2020; 18-02-2020; 23-02-2020	
22	Uttara Kannada	2018	1	1	6	Yes; Total :21 ; Non official:7	12-07-2019	2018	1		2	5	Total 23 Chairman of BFAC-01; KVK-01; Award winner-01	02-08-2019		
23	Vijayapura	2017-18		1	1	Yes; Total :27 ; Non official:06	14-11-2019	2019	Yes	3		8	Total members:31; Chairman of BFACs-JDA, KVK-Bijapur; Award winner-yes			
24	Ballari	2018		-	-	Yes		2018	2	3	1	2	Yes. Total 28; Chairman of BFAC-01; KVK-1; Awardees-2;	13-01-2020; 18-03-2020		
25	Bidar	2018	1	3	2	Yes. Total:27; Non officials-08	30-11-2019	2018	1		4	3	Yes. Total 23; KVK-1; Awardees-04			
26	Kalaburagi	2018						2018								

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Sl. No	District	ATMA GB										DFAC				
		Year of Formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	Year of formation	No. of meetings held	SC	ST	Women	Established as per guidelines	Meeting dates	
27	Koppal								2018-19	1	1	2	3	Total members 24; Chairman of BFAC-4; KVK-1; Awardees-2	19-02-2020	
28	Raichuru	2018	1	3	2	2	Yes. Total:12; Non officials-6	09-11-2019	2019	2	6	5	6	Yes. Total memebrrs:22; KVK-1; Chairman of BFAC-ADA, Awardee winner-1	21-08-2019;	
29	Yadgir	2019	1				Yes. Total:22; Non officials-3	22-05-2019	2019	1	4	2	4	Total: 20; Chairman of BFAC-2; KVK-0 Awardees-2		

ATMA GB- ATMA Governing Body; DFAC-District Farmers Advisory Committee

Year of formation of committee

The ATMA governing board of the districts have been constituted from 2017 and 2019 in different districts.

The ATMA governing board in each district has been constituted during the years from 2017-18 to 2019 depending upon the expiry of the term of the previous committee. These committees have to be reconstituted during the succeeding years depending upon the expiry of the term of two years of non-official members.

The quarterly meetings of ATMA governing board under the chairmanship of the CEO, Zilla Panchayat conducted in each district range from nil to a maximum of 2. The ATMA GB of each district is vested with the policy making, planning and implementation of ATMA activities. The prescribed quarterly meetings need to be adhered to for effective planning and implementation of ATMA activities during each year.

District Farmers Advisory Committee (DFAC)

The composition and other terms of DFACs are as under

Sl. No	Committee	Composition	Term	Meetings in a year	Representation of SC, ST & Women
1	District Farmers Advisory Committee	<ul style="list-style-type: none"> • Not more than 40 members. • Chairman of BFAC from each block of the district. • 5 state level awardee farmers • Co-ordinator, KVK • Project Director (ATMA) act as chairman. 	2 years	Quarterly	Due representation to women, SC, ST farmers

District wise composition, year of formation, meetings conducted, and representation of SC, ST & women farmers in the DFACs is presented in the table number 4

The DFACs in each district have been constituted during the years 2017 to 2019. The duration of a DFAC is two years and accordingly the one constituted during 2017-18 should be reconstituted after expiry of two years. This needs to be done in Chamarajanagar district.

The DFAC in each district act as an agency for providing farmer's feedback and inputs for preparation/compilation of action plans and for prioritization of activities at district level to ATMA GB. For effective planning and implementation of ATMA activities the DFAC need to meet quarterly in each financial year. From the above table it could be seen that the number of meetings conducted are nil to 4 during the year 2019-20 in the districts.

Perusal of the information indicate that the committees at district level have not been constituted as per 2018 guidelines of ATMA. The composition with regard to representation of non-official members, award winners, Chairman of BFAC, Zilla Panchayat members vary from district to district and sample taluks. The committees need to be constituted as per guidelines 2018.

Taluk level committees

The composition and other terms of taluk level committees' areas under

Sl. No	Committee	Composition	Term	Meetings in a year	Representation of SC, ST & Women
1	Block Technology Team (BTT)	<ol style="list-style-type: none"> Chairman Block Panchayat Samiti Block level officers of Agriculture, Horticulture, Animal Husbandry, Fisheries, Sericulture Designated scientist from KVK Member Secretary – Block Technology Manager. 	-	Every Month	-
2	Block farmers Advisory Committee (BFAC)	<ul style="list-style-type: none"> Not more than 30 members Chairman of Taluk Panchayat Samiti All members of Zilla Panchayat in the taluks 25 Progressive farmers-either awardee farmers or trainee farmers from Agriculture and allied sectors BTM-is the member secretary 	2 years	Once in a month during the season and quarterly in lean season	Out of the progressive farmers 1/3 - women. Due representation to SC/ST farmers.

Sample taluk wise composition, year of formation, meetings conducted, and representation of SC, ST & women famers in the BFACs is presented in the table number 5

Table 5: Taluk level committees in sample taluks

Sl. No	Taluks	BFAC					Established as per guidelines	Composition of BFAC
		Year of formation	No. of meetings held	SC	ST	Women		
1	Bengaluru North		5	2		5	Total-20; A-12; H-2; AH-3;	Other departments-2, ZP member-0; Farm women-A-3;

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Sl. No	Taluks	BFAC					Established as per guidelines	Composition of BFAC
		Year of formation	No. of meetings held	SC	ST	Women		
								H-2; AH-1
2	Chikkaballapur	2019	4	6	2	2	Total-25; A-2; H-4; AH-4	Other Departments-11; Chairman TPS-1; ZP members-1; Farm women A-2; H-2; AH-2
3	Holalkere	2019	2	1	3	5	Total-24; A-4; H-4; AH-4	Another Department-8; Chairman TPS-2; Farm women-A2-H2-AH3
4	Davangere	2015-16	1	2	1	3	Total-22; A-4; H-4; AH-4	Another Department-10; Farmer women A-1; H-1; AH-1
5	Bangarpete	2019	3	4	2	11	Total-30; A-4; H-4; AH-3	Other Department 5; ZP members-7; Farm women A2-H-2-AH-3
6	Ramanagara	2017-18	1	7		4	Total-26; A-H;13; AH-4	Farm Women-A-1; H-2; AH-1
7	Sagar	2017	5	5	1	8	Total-25; A-6; H-4; AH-4	Other Departments-3 Farm women A-4; H-2; AH-2
8	Koratagere	2014	2	1	0	8	Total-25; A-4; H-4; AH-4	Other Departments-7; farm

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Sl. No	Taluks	BFAC					Established as per guidelines	Composition of BFAC
		Year of formation	No. of meetings held	SC	ST	Women		
								women-A-2-H-2-AH-2
9	Chamarajanagar	2019	0	4	2	2	Total -22; A-4; H-4; AH-4; Other-4	Farm women A-2; H-2; AH-2; TPS members-2
10	Kaduru	NA	4	1		7	Total 20 members; Agriculture-10; AH-2	Farm women (Agri-7) AH-1
11	Mangaluru	2019-20	2		2	7	Total-25; Farmers-A-6; H-3; AH-4; Other-4; Chairperson of TPS-1; ZP-0	Agri-3; H-2; AH-2
12	Sakleshpura		5	1		8	Total:25	Ag-09; H-4; AH-4; Chairperson TPS-1; ZP-0; Women Agr-4; H-4
13	Virajpete	Jun-20	1	1		7	Total-25; Agri-8; H-6; AH-2; Other-2	Farm women AH-7
14	Madduru	2019	3	2		7	Total 25; A-2; H-2; AH-2 others- 9	Farm women A-2; H-1; AH-2
15	Nanjanagudu	2019-20	1	1	4	4	Total 25; A-2; H-3; AH-1; Other-5	Chairperson TPS-1; ZP members-8; Farm women-A-2; H-0; AH-1; Women group-2

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Sl. No	Taluks	BFAC					Established as per guidelines	Composition of BFAC
		Year of formation	No. of meetings held	SC	ST	Women		
16	Karkala	2018-19	4			2	Total:17; A-4; H-3; AH-3	Other-2; Chairman TPS-2; ZP-0; Farm women; A-0; H-2; AH-0
17	Bagalkot	2019	2	2	3	8	Total: 22; Other dep-4; A-6; H-4; AH-2	Farm women; A-2; H-2; AH-2
18	Chikkodi	2019	6	1	1	7	Total: 24; A-12, H-8; AH-4	Farm women A-3; H-2; AH-2
19	Dharwad	2019	2	1	1	12	Total:22; A-8; H-5; AH-10	Farm women -12
20	Gadag	2019	5	5		8	Total:24; A-5; H-3; AH-2 other Department-06	Farm women A-4 H-2 AH-2
21	Ranebennur	2017-2018	4	3	3	9	Total:22; A-2; H-2 AH-2; others-2 departemnt-6; Farm women-A-4; H-2; AH-2	Farm women A-2; H-1; AH-2 Chairman TPS-1
22	Bhatkal	June-2018	3	1	5	8	Total-22; A-14; H-5; AH-2; Other departmnt-1;	Farm women A-4; H-2; AH-2
23	Sindagi		3	2	4	9	Total-26; A-10; H-5; AH-6;	Farm women: A-3; H-2; AH-2
24	Hospete	2018	1	4	2	5	Total -28:	Farm

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Sl. No	Taluks	BFAC					Established as per guidelines	Composition of BFAC
		Year of formation	No. of meetings held	SC	ST	Women		
							A-6; H-7; AH-5	women-A2; H2; AH-1
25	Bhalki	2018	4	3	2	6	Total -22; A-3; H-2; AH-2; Other-11	Farm women-A2; H2; AH-2
26	Aland	2018		4	1	2	Total-24; A-3; H-2; AH-3 other-10	Farm women; A-2; H-2; AH-2
27	Yelburga	2018-19	1	1	1	2	Total :20; A-4; H-4; AH-4; Other-5	Chairperson TPS-1; Farm women A-1; H-1; AH-0
28	Raichuru	2019	2	4	3	3	Total-23; A-3; H-3; AH-3 other dept-5	Chair Person TPS-2; ZP Mmember-1; Farm women-A-1; H-1; AH-1
29	Shahapura	2019	2	6	1	8	Total:22; A-2; H-2; Ah-2; Other-8	TP Chairperson-1; ZP member-1; Farm women A-2; H-2; AH-2

A=Agriculture

H=Horticulture

S=Sericulture

AH=Animal Husbandry

TPS= Taluk Panchayat Samiti

ZP-Zilla Panchayath

The data indicates that the BFACs of Koratagere & Davangere taluks have been constituted during 2014 and 2015 respectively. The BFACs of Ramanagara & Sagar taluks have been constituted during 2017. All these BFACs should have been reconstituted during 2019-20 as per ATMA guidelines 2018. This has not been done.

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Regarding the meetings conducted during the year, among the 29 sample taluks the number of meetings conducted range from 0 to 6.

Representation to SC and ST farmers is not adequate in the taluks of Koratagere, Kadur, Mangaluru, Sakleshpur, Virajapete, Maddur, Karkala, Chikkodi Dharwad and Yalaburga taluks.

Representation of women farmers in the committees of Bengaluru North, Chikkaballapur, Davangere, Ramanagara, Chamarajanagar, Nanjanagudu, Karkala, Hospete, Aland Yelaburga and Raichuru taluks is not adequate.

I. Outcomes of the meetings

ATMA Governing Body

The ATMA Governing Body Meetings in different districts of the state have focused their discussions on the following subjects.

- a. Review of progress of previous year and annual action plans approved by the SLSC and approval of annual action plans for 2019-20.
- b. Activities of other allied sectors
- c. Giving importance for Animal Husbandry (Dairying), Sericulture and Horticulture Programmes.
- d. Increasing the number of activities under trainings and exposure visits to neighbouring states and progressive farmers' fields.
- e. Farmer awards to achievers in all the sectors.
- f. Giving importance for income generating activities like Mushroom cultivation, Beekeeping, marketing and value addition in minor Millets.
- g. Raising and maintaining Sandalwood plantations in some districts.
- h. IPM for the control of Fall Army Worm, White Grubs.

DFAC

1. Reorganization of DFACs as per 2018 ATMA guidelines.
2. Exposure visits to States like Gujarat, Maharashtra, Sikkim, for viewing the progress made in the field of Dairying, Water Management and Horticulture.
3. Preparation of success stories of achiever farmers and award winners at taluk and district level and publicize the same to reach the farmers during kharif of each year.
4. More exposure visits to be organized for progressive farmers' fields.
5. Organization of Farmer Producer Organizations (FPOs).
6. Value addition and marketing of all the agriculture and related fields produce.
7. Giving more importance to IFS.

8. Issues related to local problems of supply and services in Agriculture and allied sectors.

BFAC

1. Reorganization of BFACs as per 2018 ATMA guidelines.
2. Discussion and approval of annual action plans for the year 2019-20.
3. Review of sector wise progress achieved in different allied sectors.
4. To increase the number of interstate exposure visits and progressive farmers' fields.
5. Exposure visits to krishi melas, kisan goshties, farmer-scientist interactions etc.
6. Organisation of Krishi exhibitions, farmer's day, soil health day etc.
7. Local issues of pest and disease control in different crops.

II. Percentage of members not attending the committee meetings

ATMA Governing Body

1. Governing Body meetings

The percentage of non-participating members range from five to sixty percent

2. DFAC

Six to seventy five percent of the members are not participating in the DFAC meetings.

3. BFAC

Five to fifty two percent of the members are not participating in the BFAC meetings.

6.1.3 Convergence across the departments

ATMA Scheme has been promoted with an idea to provide a platform for integrated extension delivery involving all the agriculture related departments and stakeholders.

Necessary convergence with all line departments is to be ensured through their involvement in the process of SREP, annual action plan at block, district and state levels. The annual action plans to be submitted to SLSC should specify the activities to be supported from resources of other schemes and those proposed under ATMA. In order to ensure promotion of multi-agency extension strategies and implement activities, at least 10 percent of scheme allocation on recurring activities at district level is to be incurred through NGOs, farmers organizations, agri-prenuers trained under ACABC, input dealers etc.

Details of the responses furnished by the Project Directors with regard to departments involved in convergence, activities taken place etc. are provided in the below table.

Table 6: Convergence across the departments

Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
1.	Chikkaballapur	Horticulture, Sericulture Fishery and Veterinary Department.	Making model villages and converging all activities in model villages.	Yes, many of the line department officers are reluctant to go through convergence programme.	Horticulture, Sericulture Fishery and Veterinary department.
2.	Chitradurga	-	Convergence in demonstration training and exposure visit		Horticulture, Animal husbandry, Fisheries and Sericulture department. No meetings with allied sectors except GB
3.	Davangere	Veterinary, Fisheries, Horticulture, Sericulture, Forest,	Conducting trainings related to farmers income doubling.		Not all Department involved.
4.	Kolara	-	Trainings, EV, demonstrations (Involvement only)		
5.	Ramanagara	-	Involvement in BTT, BFAC meetings and also in implementation of different activities under ATMA		Taluk level heads of all the departments are involved in convergence

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Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
6.	Shivamogga	All Departments were involved	For eg: fish rearing in farm pond.		All officers were involved
7.	Tumakuru	All Departments were involved in convergence	Training, demos, group formation, farm school		All officers. Yes
8.	Chamarajanagara	All other Departments like Animal Husbandry, Horticulture, Fisheries, Forestry, Sericulture, & Agri-Marketing.	The Allied departments are made to involve actively in BTT Meetings, BFAC Meetings and also in implementation of different activities under ATMA.		Taluk level heads of all the departments are involved in convergence.
9.	Dakshina Kannada	Horticulture, Fisheries and Veterinary	Informing the Facilities of department to all farmers to adopt Integrated Farming System		ADA, AO, AAO, DPD, BTMS, ATMA, KVK Scientist, SADH, AHO, HA, ADV, ADF
10.	Hassan	Horticulture, Sericulture, Animal Husbandry, Fisheries, Forest			
11.	Kodagu	Horticulture, Sericulture, Animal Husbandry, Fisheries, Forest			

Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
12.	Mandya	Agriculture, Horticulture, Veterinary, Fisheries, Forest, Sericulture	<ul style="list-style-type: none"> In adopting integrated Farming system, trainings, kisan Goshties, FIG formation, demonstration layout, etc., and also all department are doing activities through the action plan like trainings, exposure visit, demonstration and farm school like this way convergence are done. 	All department are converged	ATMA staff, Agri officers, line departments officials, KVK scientists
13.	Mysuru	Agriculture, Animal Husbandry, Horticulture, Fisheries, Forestry, Sericulture,	<p>The Allied departments are made to involve actively in BTT Meetings, BFAC Meetings and also in implementation of different activities under ATMA.</p>		Taluk level heads of all the departments are involved in convergence
14.	Udupi	Horticulture, Animal husbandry, Sericulture and forestry.	Conducted trainings on organic farming and marketing, prawn cultivation and cage cultivation of fish. Growing improved high yielding varieties of Agriculture and Horticulture crops.		ADA, AO, AAO, ADH, SADH, ADF.

Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
15.	Bagalkot	Agri. Horticulture, Animal husbandry, dairy, sericulture, Forestry, APMC, Women and Child welfare Dept, Panchayats, Cooperative banks, NGO's FPO's like Dharmastala, KVK'S, Horticulture and Veterinary college,	Convergence for ATMA activities, MGNREGA, IFS models, Krishi Melas		Officers of the departments of Agri. Horticulture, Animal husbandry, dairy, sericulture, Forestry, APMC, Women and Child welfare Dept, Panchayats, Cooperative banks, NGO's FPO's like Dharmasthala, KVKs, Horticulture and Veterinary college,
16.	Belagavi	Agriculture, Horticulture, Animal husbandry, sericulture, fisheries	Convergence is in activities like: trainings, exposure visits, demos, farm schools, kisan melas, kisan goshties, department schemes benefit		PD, DDAs, JDA, ADAs, AOs, BTMs and ATMs of Agri. dept, SADHs, AHOs, and HA of Horti Dept., PC and SMS of KVKs, Inspectors of Vet Dept., Demonstrator and Asst. Directors of Seri Dept, SADF of Fisheries Department
17.	Dharwad	All Allied Departments like Horticulture, Fishery, Animal Husbandry, sericulture and marketing Departments.	Transfer of technology Through solar traps, through Dry land technologies	Convergence is there very much	Assistant Director of Agriculture, Assistant Director of veterinary, Senior Assistant Director of Horticulture, Assistant Director of Fisheries, Assistant Director of sericulture.
18.	Gadag	Horticulture, Sericulture, Animal husbandry and veterinary, KVK, UAS Dharwad	Trainings, exposure visits, demonstrations, joint visits and farmer awards.		Taluku level officers of all the above departments, Scientists from KVK and UAS Dharwad

Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
19.	Haveri	Horticulture, Sericulture, Fishery, Social Forestry, Animal Husbandry, Women and child welfare Department.	Convergence through all the ATMA activities		Line department officers of Horticulture, Sericulture, Fisheries, SF, Animal Husbandry Women & child welfare Department.
20.	Uttara Kannada	Horticulture, Animal Husbandry, Fishery.	AAP, FOA, FS, flower shows, krishi mela- cattle management, fodder preparation, KG, demonstration, fish cultivation in farm ponds. (Horticulture, Animal husbandry, Fisheries)		ATMA officials
21.	Vijayapura	KVK Indi, HR&EC, Tudagundi Horticulture Department	Scientific method of crop production		Senior Scientist & Head KVK Indi Scientist KVK Indi scientist HR&EC, Tudagundi
22.	Bidar	Agri. Horticulture, Animal husbandry, dairy, sericulture, Forestry, APMC, Women and Child welfare Dept, Panchayats, Cooperative banks, NGO's like Dharmastala, KVKS, PKPS, Horticulture and Veterinary college	Convergence for ATMA activities, MGNREGA, IFS models, krishi melas		Officers from the Department of Agri. Horticulture, Animal husbandry, dairy, sericulture, Forestry, APMC, Women and Child welfare Dept, Panchayats, Cooperative banks, NGO's like Dharmastala, etc. KVK Scientists,

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Sl. No	District	Departments involved in ATMA activities	What sort of convergence activities taken place	Reasons for no convergence	Officers involved in bringing convergence among different Departments
23.	Koppal	Yes	To increase sustainable farming in Agri and allied sector		All ATMA staff, all officials of agriculture Department Asst. Directors of Allied Departments.
24.	Raichuru	Horticulture, Animal husbandry, Sericulture and forestry	Conducted trainings on organic farming and marketing. Growing improved high yielding varieties of field & Preference to Agriculture and horticulture crops.		ADA, AO, AAO, ADH, SADH, ADF
25.	Yadgir	Horticulture, Sericulture, Animal husbandry, Fishery and Forestry	Demonstrations, capacity building, training and exposure visits to farmers		Deputy Directors, ADH, AD of AH, Sericulture and RFO of forestry

AHO- Assistant Horticulture Officer

HA-Horticulture Assistant

SADF-Senior Assistant Director of Fisheries

UAS-University of Agricultural Sciences

ADF- Assistant Director of Fisheries

RFO-Range Forest Officer

ADAH-Assistant Director of Fisheries

Departments involved in ATMA activities

Departments involved in ATMA activities during 2019-20 are: -

Agriculture

Horticulture

Animal Husbandry

Sericulture

Fisheries

Forestry

Krishi Vignana Kendras

Officers involved in bringing convergence among different departments

At district level the Secretary of the ATMA GB is also the Deputy Director of Agriculture and the Secretary of the GB is responsible for initiating, planning the convergence of activities of other departments with ATMA. At least he can bring the subjects during the ATMA GB meetings where in the Chief Executive Officer of the concerned Zilla Panchayat is the Chairman. CEO as the Chairman of GB and as the head of all participating allied departments at district level can instruct the officers of concerned departments to comply with convergence. The ATMA GB meetings are the best forums to discuss and take decisions.

At taluk level the Assistant Director of Agriculture is the head of BTT team where in all aspects of planning and implementation of ATMA scheme in the taluks is discussed. Here too the Assistant Directors of Agriculture have not made any attempt to initiate and discuss and take decisions regarding convergence of activities with officers of other departments during BTT meetings.

Convergence activities taken place

The secondary data submitted by the Project Directors (ATMA) of the districts, Assistant Director of Agriculture of sample taluks has been considered. FGDs held with taluk level officers of development Departments and personal interviews held with some of the Project Directors (ATMA), Deputy Project Directors (ATMA) Assistant Director of Agriculture of sample taluks, BTMs and ATMs has been done during field visits.

From the information gathered at district and taluk level the following observation are made.

1. At district level the Project Director (ATMA) is the secretary of the ATMA Governing Board. In the district where ATMA GB meetings have been conducted; the officers of the concerned department, representative of KVK head, have attended the meetings. Beyond this there is no effort on the part of the concerned officers to bring about convergence in planning and implementation of ATMA activities among development departments.
2. In the sample taluks, BTT meetings have been conducted. Taluk level officers of the participating departments have attended meetings. Subjects other than convergence of ATMA activities with other schemes of Agriculture or other allied departments have been discussed during the meetings.

3. The responses provided by the Project Directors and the actualities at taluks level does not match. The focus group discussions held with officers of Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries and Forestry at taluk level in a few sample taluks also affirm that discussions at BTT were limited to implementation of the ATMA activities. In the implementation process also, activities of allied sectors have been implemented by the ATMA functionaries and in a few taluks, the officers of allied sectors have been involved as subject matter specialists to impart training to farmers.

Reasons for no convergence

The responses of the Project Directors of the 29 districts are presented in table No.6 reasons have been furnished by the Project Director of Chikkaballapura district only.

Perusal of the responses furnished by the Project Directors of ATMA in Table 6 say 'yes' and also list a few activities stating that convergence in these activities has taken place. But the fact is that no convergence has taken place and activities have been implemented by ATMA functionaries in majority of the taluks and districts.

Convergence of the scheme with other departments

The ATMA scheme guidelines of 2018 has made sufficient provision for converging its activities with other schemes and activities of allied sectors and agriculture research system of State Agricultural Universities, KVKs, Non-Governmental sector including NGOs, AC ABC, farmers organization and Agri-pruners. This only needs to be adhered and followed up by the concerned authorities at state, district and taluk level vested with the planning and execution of the ATMA scheme.

6.1.4 Information and communication strategies

The ATMA scheme envisages to disseminate the farm information related to extension and research aspects related to crops, varieties, nutrients, plant protection, harvest, post-harvest technologies and marketing of farmers produce aspects related to other allied sectors through organizing local level Agricultural exhibitions, low-cost publications, printed materials, development of technology packages in electronic form etc.

To achieve this objective the districts and taluks have adopted the following information and communication strategies

1. Publication of leaflets, folders, pamphlets, Brochures, Handouts, wall posters, low-cost publications, banners, etc.
2. Preparation of Compact Discs (CDs)
3. Preparation of Video clippings and videos
4. Advertisements and news articles through newspapers, Doordarshan
5. Advertisements through autorickshaw and other vehicles
6. Social media like Facebook, Whatsapp and You Tube
7. Exhibitions
8. Success stories

District wise modes of dissemination activities implemented and farmer's preferences are furnished in below table.

Table 7: Mode of dissemination of technology to farmers

Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
1.	Bengaluru Urban	Pamphlets, leaflets, kalajathas, low-cost publication, advertisements through Akashvani district level exhibitions etc.	District level exhibition on 23-12-19. International farmer's day at Krishi Bhavana Bengaluru. 05-02-2020 Horticulture fair, IIHR. Feb 20- Horticulture Mela- Mysuru. 25-01-2020 Cubbon park, Vijaya Karnataka Krishi Sadhaka award.	Yes	Yes	Trainings and exposure visits.
2.	Chitradurga	Leaflets of crop insurance, control of Fall Army worm, improved crop production in Groundnut, Tur, Cotton etc.	District level exhibition 21-02-20 Horticulture flower show at Chitradurga tableau at Mysuru Dasara	Yes	Yes	Demos, farm school, training, leaflets, auto ricksha advertisement
3.	Davangere		District level exhibition. 23-08-2019, Horticulture flower and fruit show. 03-09-2019 Jalashakti Mela at KVK, Davangere.	Yes	Yes	Low-cost publication and water management
4.	Kolara	Pamphlets, leaflets, low-cost publication, Folders and district level exhibition	District level exhibition 26-01-2020 Agriculture+ Horticulture flower shows	Yes	Yes	Exposure visit

Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
5.	Ramanagara	Leaflets, Video clippings, Handouts	District level exhibition on Horticulture Ramanagara Flower and fruit show 26-01-2019	Yes. Strategies are selected based on the required technologies/practices as per the situation and crops especially region based.	Yes. Displayed at trainings	Technology is disseminated through leaflets, folders, handouts, booklets etc. wall posters and new articles too.
6.	Shivamogga	Leaflets, Advertisements, technology packages, low-cost publication, district level exhibition	District level exhibition, 04-10-20 Raita Dasara Shivamogga Oct, Nov Dasara, Mysuru.	The technologies which were demonstrated in the farmers field and later it was accepted by the farmers itself	Has been covered about 30 percent of farmers	Social media, printed media, electronic media, magazine
7.	Tumakuru	Leaflets, Pamphlets, 3-fold folders, posters	District level exhibition. 24-10-2019. GKVK, IFS, 06-01-2020 Sira taluk Pattanayakanahalli about IFS	Yes	Yes	Krishi mela exhibitions
8.	Chamarajanagara	Brochures, announcements through moving vehicle, paper advertisements, district level exhibition, Leaflets development of technology packages	District level exhibition. 03-10-2019 to 5-10-2019 Agriculture+ Horticulture (Flower Show)	Yes. Strategies are selected based on the required technologies/practices as per the situation and	Yes	Leaflets, folders, handouts, wall posters, booklets, newsletters too.

Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
9.	Dakshina Kannada	District level exhibition, leaflets, advertisements	District level exhibition 12-10.2019 & 13-10-2019 Agriculture+ Horticulture, Kisan mela and Horticulture fair. ICAR-CPCRI Research Centre KIDU	crops especially region based. Yes	Yes	Leaflets
10.	Hassan	Pamphlets, Leaflets, Kalajathas, low-cost publication, district level exhibition, advertisements through Akash Vani etc.	District level exhibition oct 2019 & Jan 2020	Yes	Yes	Exposure visits
11.	Kodagu	Leaflets, handbook, district level exhibition Advertisements Kisan mela.	District level exhibition at KVK Gonikoppa.			
12.	Mandya	Pamphlets, Leaflets, Kalajathas, Low-cost publications etc. Agri, AH, Horti, fisheries subjects	Krishi mela-Mandya, flower show at mandya.	Yes. The strategies are appropriate to the taluks.	Yes	Practical knowledge advertisements.
13.	Mysuru	District level exhibition, leaflets, technology packages, low-cost publication, folders,		Strategies are selected based on required technologies as	Yes	Leaflets, brochures, folders, wall posters

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Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
14.	Udupi	booklets, news articles Trainings, EVS, KGs, FS, Joint visits, leaflets, folders, success stories, exhibitions	06 district level exhibitions farmers day-3, Udupi paryaya tableau, Flower and Fruit show at Udupi	per the situation and crops- specially region based.	Technology dissemination by agriculture department also made use of by ATMA for dissemination	
15.	Bagalkot	District level exhibition, Leaflets. Advertisements in bus stand, low-cost publication, technology packages	District level exhibition 23-12-2019 at KVK, Bagalkote.	Yes	Yes	IS, WS, EVS. IS & WS training. KGs FSI, brochures, FSI, capacity building, training to farmers groups.
16.	Belagavi	Printed leaflets, publications low-cost publication, Facebook, youtube, newspaper, district level exhibition,	District level exhibition Jan 25-26, 2020	Appropriate to the district	Yes	Audio visual aids, demos, field trails, FS, Krishi mela, EV, trainings, visits to progressive farmers' fields, KVK & Research Centres.

Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
17.	Dharwad	District level exhibition, Leaflets	District level exhibition Oct 2019	Appropriate	Yes (leaflets 25,000)	Leaflets, advertisements, district level exhibition, Low-cost publication
18.	Gadag	Print material video clips, exhibitions	District level exhibition 1-11-2019 at Gadag Hulkoti			Trainings, EV, demos
19.	Haveri	Leaflets, card boards, blow ups, banners, pamphlets, district level exhibition, low-cost publication.	District level exhibition.	Yes	Certainly, yes	Easily adoptable, technologies farmers preferred.
20.	Uttara Kannada	Leaflets, banners, pamphlets, display boards, district level exhibition low-cost publication	District level exhibition 4-2-2020 Horticulture fruits, flower and vegetable show. 4-5-2019 Kadamba marketing Sabha bhavana Sirsi			
21.	Ballari	Leaflets, district level exhibition				Demos, trainings at field level and practical utility of technology
22.	Bidar	District level exhibition, leaflets, low-cost publication, technology packages		Yes	Yes	EVS-Interstate, within state, KGs, FSI, Brochures, FS

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Sl. No	Districts	Modes of dissemination	Activities	Appropriate to the District	Reached to the farmers	Farmer preferences
23.	Kalaburagi	District level exhibition, Kisan mela, fruit & vegetable shows, leaflets, advertisements, low-cost publication. Digital technology packages		Yes	Yes	-Do-
24.	Koppal	Printed leaflets, low-cost publication, demonstrations District level exhibition etc				-
25.	Raichuru	District level exhibition, leaflets, low-cost publication, technology packages				Fs, demos, trainings, EVs
26.	Yadgir	Leaflets and folders, banners, posters, exhibitions low-cost publication, district level exhibition				Fs, demos, trainings, EVs

EV-Exposure Visits
 KG-Kisan Goshti
 FS-Farm School
 IS-Inter State
 WS-Within State

Appropriate to the taluks and districts

The information and communication strategies used in ATMA scheme relate to local issues, problems, and recent advancements in the technologies related to Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries sectors. Since this, being the digital era, more extensive knowledge and recent advancements can be disseminated through this medium and more farmers can be reached in short time. This has been done in the districts of Bengaluru Urban, Shivamogga, Chamarajanagar, Hassan, Bagalkot, Belagavi, Kalaburagi & Raichur.

The information and communication materials have been distributed to farmers during trainings, exhibitions and exposure visits.

Impact of Share of knowledge and awareness amongst beneficiaries

The Primary survey and discussion with the beneficiaries show that dissemination and share of knowledge by the ATMA staff were well picked by the beneficiary farmers and even outside these villages. The extension of farm mechanization is one of the best examples. The farmers are well acknowledged the benefits of farm mechanization in paddy harvest, post-harvest and even the post-harvest for bundling of paddy straw is well received and practiced by the farmers. Likewise, fruit processing, Mushroom cultivation, value addition by composting of arecanut husk and drying of vegetable is also been reported. The study reflects the reduction in cost of cultivation which is due introduction and adoption labour saving practices. These reflects the ATMA staff have disseminated adoptable technology.

6.1.5 Capacity building and human resource development

In order to ensure regular training and skill upgradation of state and district/block level extension functionaries two SAMETIs (State Agriculture Extension Management and Training Institutes) have been established at UAS Bengaluru & UAS Dharwad.

Curriculum of trainings developed before the start of the trainings

Trainings need assessment of ATMA functionaries and officers of the Department of Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries has been done from 24-05-2019 to 25-05-2019 at SAMETI (S) Bengaluru. The Deputy Project Directors and Block Technology Managers have been involved in this process. Topics of different departments have been finalized in May 2019. The trainings calendar has been prepared for the period from May 2019 to February 2020, Trainings at SAMETI (S) have commenced in May 2019 and ended in Jan 2020.

At SAMETI (N) Dharwad curriculum of different sectors has been finalized in July 2019. Annual workshop was held from 14 to 15th of May 2019 as Chintana Manthana' involving Deputy Project Directors and Block Technology Managers.

At SAMETI (S) Bengaluru, the training need and assessment held in May 2019 for 2 days with the DPDs and BTMs have finalized 19 Topics

The curriculum to suit all sectors

Topic wise number of trainings calendar developed is as under

Sl. No	Topic	No. of trainings planned
1.	Refresher training and orientation for ATMA staff and DAESI trained input dealer	10
2.	Training to farm tele advisors of Kisan call centers	2
3.	Drought proofing action plan of Kolar and Bengaluru districts	4
4.	ATMA	3
5.	Agriculture & allied sectors	7
6.	Animal Husbandry	5
7.	Horticulture	1
8.	Sericulture	1
9.	Training need assessment	1
Total		34

The curriculum reveals that fisheries topic is missing.

At SAMETI (N) Dharwad, curriculum covered topics in Agriculture, Horticulture, Animal Husbandry and Self-Help Groups. Topics under Sericulture and Fisheries are not covered. It was informed that the Curriculum has prepared in consultation with scientists, DPDs and BTMs and accordingly suitable topics were covered in each of the training programmes.

Trainings conducted as per curriculum and time

Out of 34 trainings planned at SAMETI (S), 7 topics have been conducted as per the calendar. 6 trainings in the calendar have been conducted during the month other than that were planned. 6 trainings which were not planned have been conducted during different months. Hence out of a total of 34 trainings planned 16 trainings only have been conducted during 2019-20 from May 2019 to Feb 2020, out of these 16 trainings conducted 9 are from the calendar drawn for 2019-20.

At SAMERI (N), Dharwad training programmes were conducted as per the schedule indicated in the training calendar. Various on campus and off campus trainings were organized as per the curriculum timeline. As part of the training programme, the trainees were taken to the Research farms and Progressive farmers' fields.

Curriculum for the trainings developed before the trainings

SAMETI, Bengaluru	SAMETI, Dharwad
Training calendar for SAMETI (South) has been finalized in May 2019	Curriculum of different sectors finalized in July 2019. Annual workshop was held from 14-15 May 2019 as " Chintana-Mantana" involving DPDs and BTMs.

Curriculum developed suit all the sectors

The curriculum and training calendar finalized in May 2019 involved the DPDs and BTMs	Curriculum covered topics in Agriculture, Horticulture, Animal Husbandry and self-help Groups
The Curriculum reveals that Agriculture and Animal Husbandry topics are covered	Topics under sericulture and fisheries are not covered
Horticulture, Sericulture Fisheries topics are missing	It was informed that the curriculum was prepared in consultation with scientists, DPDs & BTMs and accordingly suitable topics were covered in each of the training programmes.

Trainings conducted as per Curriculum and time

<ul style="list-style-type: none"> • Against the topics in curriculum which are 19 on different topics, only 7 topics have been covered • The training calendar is prepared from May 2019 to February 2020 • Out of 15 trainings conducted from May 2019 to Feb 2020 only 3 training have been conducted • As per the calendar. More trainings (7 numbers) have been conducted on formation and management of Farmers Producers Organization (FPOs and Converge in ATMA). 	Training programmes were conducted as per the schedule indicated in the training calendar. Various on Campus and of Off campus training were organized as per the curriculum time line. As part of the trainings programme the trainees were taken to the research farms and progressive farmers' fields.
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6.1.6 Resources allocation for NGOs, SC, ST, women farmers and for beneficiary-oriented activities

Resources allocated to NGOs involved in ATMA activities

Resources have not been allocated to NGOs during planning process either at state, district or taluk levels. Some districts have allocated funds to NGOs for implementation of activities and to work as resource persons during training to farmer groups.

Information is furnished in Table 8

Percentage of allocation to SC, ST and Women farmers

Details of the resources allocated to SC, ST and Farm women in some districts is presented in table number 8

The resources allocated to these categories across the departments is presented in below table.

Financial allocations have been made to allied sectors in the districts of Ramanagara, Shivamogga, Udupi, Bagalkot, Dharwad, Gadag, Haveri & Yadgir.

Table 8: Resource allocation to SC, ST and farm women:

Sl. No	District	% of allocation to SC, ST, FW				Resources allocated to these categories across the Departments						Resources allocated NGOs/Agencies		
		SC	ST	FW	Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest				
1.	Bengaluru Urban													To Digvijay TV channel involved in joint installation of stall at Mysuru Dassara Rs. 0.59 lakh
2.	Chikkaballapur													0.3 to 2 NGOs in Gudibande taluk for kalajathas
3.	Ramanagara	1.35	0.17	2.31	2.23	0.66	0.46	0.42	0.06					
4.	Shivamogga	A-32	4	40										
		H-26;	3	28										
		AH-28	12	32										
		S-4	2	6										
5.	Tumakuru	Fisheries-12	10	24	Fisheries-12 percent									
		Has divided the AAP and expenditure @ SC-18 percent ST-12 percent & women 33 percent												
6.	Dakshina Kannada	0	0	Rs.46,000 Spent	Rs.15000-Spent									

Sl. No	District	% of allocation to SC, ST, FW			Resources allocated to these categories across the Departments						Resources allocated NGOs/Agencies	
		SC	ST	FW	Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest		
7.	Hassan		Around 30-35 percent of the 37.54 lakhs has been utilized for women s ir group formation trainings etc									Vijaya Karnataka -DLE Rs.15,000 spent
8.	Kodagu	17	7	33								
9.	Mysuru											SAHAJA Samruddhi-18750; SKDPR-1500
10.	Udupi	A 3.38 #S-2.31	* A 1.35 #S 2.22	* A 6.30 #S-6.00	* A 6.59 #S-7.49	A 2.23 #S-2.01		* A 0.70 #S-0.53	A 0.40 #S-0.195	A 1.11 #S-0.31		
11.	Belagavi											0.30 lakhs
12.	Dharwad	7.2	3.6	15.00	Agri and allied sectors							2.00 lakhs
13.	Gadag				Resource spent SC-1.14; ST-0.76; Women -4.71;	Resource spent SC-0.23; ST-0.15; Women -0.93;	Resource spent SC-0.13; ST-0.09; Women -0.53;	Resource spent SC-0.14; ST-0.09; Women -0.58;				0.50 lakhs
14.	Haveri	12	7	18	Agriculture							0.20 lakhs

Sl. No	District	% of allocation to SC, ST, FW				Resources allocated to these categories across the Departments						Resources allocated NGOs/Agencies
		SC	ST	FW		Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest	
15.	Uttara Kannada	2.61 lakhs	1.81lakhs	14.91lakh s		15.22 lakhs	1.13 lakhs	0.10 lakhs	1.75lakhs	1.14lakhs		0.20 lakhs
16.	Koppal											0.20 lakhs
17.	Yadgir	1.54	0.70	0.94		2.86	0.20	0.04	0.08			

A=Agriculture; H=Horticulture; AH=Animal Husbandry; S=Sericulture*A =Allotted #S=Spent

Some Non-governmental organization/agencies have been allocated funds to carryout some programmes/activities entrusted to them. This has been done in the districts of Bengaluru Urban, Chikkaballapur, Hassan, Mysuru, Belagavi, Dharwad, Gadag, Haveri, Uttara Kannada & Koppal.

6.2 Process / implementation

6.2.1 ATMA activities start in the taluk

ATMA activities start on 1st April 2019 in the taluks. The secondary information furnished by all districts is shown in table 9. Though activities start in the taluk and district level on 1st April 2019, the implementation of ATMA activities starts in each taluk depending upon the availability of funds and approval of Annual Action Plans.

The state level annual action plan of ATMA for the year has been approved by SLSC on 30-04-2019 and the same has been communicated to all Joint Directors of Agriculture and Project Director (ATMA) of the districts. Physical and financial targets are also communicated through the same letter. The ATMA functionaries and Assistant Director of Agriculture of the sample taluks have informed that the activities are implemented even before, the approval of AAP depending upon the availability of funds.

Timeline for implementation process

The Director of Agriculture Department in Karnataka, Bengaluru vide letter dated 14-05-2019 has informed all the Joint Directors of Agriculture and Project Directors (ATMA) of the state to implement the ATMA activities based on available grants, revised guidelines 2018, administrative sanction and limitations. In line with the instructions and also based on the availability of funds, activities such as farmers Group formations are started even before the approval of Annual action plans. The data submitted by the Project Director and Assistant Director of Agriculture of sample taluks indicate that one or other activities are implemented in the districts & taluks throughout the year. The details furnished by the Project Directors of the districts is presented in table

Table 9: Implementation process and timelines

Sl No	District	ATMA activities started in the Taluks	Start before or after the AAPs	Time line for implementation process
1.	Bengaluru Urban	Start in April every year	Implemented the activities once action plan approved	All most all the components are implemented time to time
2.	Chikkaballapur		After Approval of AAP	
3.	Chitradurga	05-06-2019 after first rains	Before	Training, exposure visits, demos, group formation, etc.
4.	Davangere	April-2019	Before	As per ATMA guidelines
5.	Kolar	Started in the month of April every year	Implemented the activities once action plan is approved	All most all the components are implemented time to time
6.	Ramanagara	April-2019	Started after approval of AAP	April 2019 to May 2020
7.	Shivamogga	14-05-2019	Before	Followed
8.	Tumakuru	01-04-2019	After approval of AAP	1 year
9.	Chamarajanagara	April 2019	Started after approval of AAP	April 2019 to May 2020
10.	Chikkamagaluru	01-04-2019	Before approval of AAP	15-03-2020
11.	Dakshina Kannada	April	Before approval of AAP	Through review meetings, demands
12.	Hassan	Started in the month of April of every year	Implemented the activities once action plan is approved	All most all the components are implemented time to time

Sl No	District	ATMA activities started in the Taluks	Start before or after the AAPs	Time line for implementation process
13.	Kodagu	April -2019	Before approval of AAP	
14.	Mandya	April -2019	Started before approval of AAP but after taking ratification from CEO, ZP	Timely conducted all the activities
15.	Mysuru	April -2019	Started after approval of AAP	April 2019 to May 2020
16.	Udupi	April -2019	Before	
17.	Bagalkot	July-2019	Before approval	Intime
18.	Belagavi	14-05-2019	Started after approval of AAP	---
19.	Dharwad	May-2019	After approval	After BFAC
20.	Gadag	June-2019	After approval of AAP	Monthly basis
21.	Haveri	April -2019	Before	Yes
22.	Uttara Kannada	April -2019	Started before approval of AAP	Till march 2020
23.	Vijayapura	01-04-2019	Before	Completed
24.	Ballari	June-2019	After approval of AAP	June-March 2020
25.	Bidar	July-2019	Before approval	In time
26.	Kalaburagi	July-2019	Before approval	On time
27.	Koppal	Month of April	Implemented the activities once action plan approved	Yes
28.	Raichuru	First week of April	Before	
29.	Yadgir	Jun-2019	Before approval of AAP	

6.2.2 Farmers group formed across the sectors

Formation of Farmer's groups

All the farmer groups – CIG's, FIG's, FSG's, in allied sectors formed during 2019-20 have been organized by ATMA functionaries. Other sectors like Horticulture, Sericulture, AH, Fisheries and Forestry have not formed the farmer groups. No allocation has been made to these sectors for formation, capacity building and seed money.

Details of farmer groups formed on allied sector topics is presented in table 10

Reasons for not forming farmers groups in allied sectors

The subject of formation of farmer groups, their capacity building and providing seed money to eligible farmer's groups by other sectors has not find a place during the preparation of Annual action plan either at taluk level or district level.

Reasons furnished by the districts are presented in table number 10.

Table 10: Farmers groups formed on allied sector topics

Sl. No	District	Sectors						Women children welfare	Remarks	If some sectors not formed groups reasons
		Agriculture	Horticulture	AH	Sericulture	Fisheries	Forest			
1.	Bengaluru Urban							Most of the groups are formed under agriculture sector	All the sectors are actively involved in implementation of ATMA activities	
2.	Chikkaballapur	35	3	2						
3.	Chitradurga	31	3							
4.	Davangere	16	5	2	1					
5.	Kolar	34						Resource persons are from line departments in some cases	Groups are created under Agri and Horticulture crops.	
6.	Ramanagara	28							All the sectors are actively involved in implementation of ATMA activities	
7.	Shivamogga	17	6	1	7	1			working staff limited in some departments	
8.	Tumakuru	49	5		2				FIG/CIG groups formed to allied sectors	
9.	Chamarajanagara	5	2		2			Not formed as per interview with DPD/BTM	All the sectors are actively involved in implementation of ATMA activities	
10.	Dakshina Kannada	10	6		4			Farmers does not show interest regarding sericulture programme. Hence under this sector		

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Sl. No	District	Sectors					Women children welfare	Remarks	If some sectors not formed groups reasons
		Agriculture	Horticulture	AH	Sericulture	Fisheries			
11.	Hassan	27						have not formed groups	
12.	Mandya	13	13	7	5	4			Groups are created under agriculture, Horticulture crops.
13.	Mysuru								Training given seed money given
14.	Udupi	19	2						All the sectors are activity involved in implementation of ATMA activities
15.	Bagalkot	36							Training: Agriculture-19; Horticulture-2
16.	Belagavi	63	7	1	1	1			NA - Formed groups in all sectors
17.	Dharwad	34							Forestry department not formed groups due to shortage of manpower
18.	Gadag	22	6	6					Agriculture; Allied sectors
									Fisheries, Forestry and Sericulture sectors have not formed groups. -Reasons: Fisheries has minimum opportunities in the district, Sericulture Department is facing staff shortage.

Sl. No	District	Sectors						Women children welfare	Remarks	If some sectors not formed groups reasons
		Agriculture	Horticulture	AH	Sericulture	Fisheries	Forest			
19.	Haveri	52 Agri +Allied sectors								Forestry Department involvement is generally low despite constant approach to them.
20.	Uttara Kannada	68	5	4		5				Sericulture not formed any groups because in this district sericulture area is less and sericulture farmers are scattered in location. It is very difficult to combine those farmers.
21.	Ballari		11			3	25			
22.	Bidar	30	4				9			
23.	Kalaburagi	36								
24.	Koppal	21							Groups are formed under agriculture	
25.	Raichuru	28								
26.	Yadgir	10	6	1						

Training Programmes and Exposure Visits.

Training/capacity building of farmers:

Training/ capacity Building of farmers forms an important aspect of the activities under ATMA. This activity provides for yearlong training/capacity building of farmers at Village, Hobli, Taluk, District, State, outside state levels. Under this component, farmers are trained about the recent technological advances & innovations made in Agriculture and allied sector topics suitable to their local conditions. Their knowledge and skills are updated so that they can plan and implement the knowledge during the coming seasons. The ATMA guidelines 2018 has made provision for Training/Capacity building for farmers as under.

Activity	Details	No of farmers to be trained in block
Training of farmers for a period of maximum 7 days	1. Interstate	Average 50 farmers days per block
	2. Within state	Average 100 farmer days per block
	3. Within District	Average 1000 farmer days per block

The details of the trainings/capacity building made in each district and the month in which these trainings have been contacted is presented in table no 11.

Table 11: Trainings/capacity building of farmers

Sl. No	District	No. of trainings/CB organized				No. of farmers involved				Time of conducting trainings by different Departments						
		IS	WS	WD	Total	IS	WS	WD	Total	Agri	Horti	Seri	AH	Fisheries	Forest	
1.	Bengaluru Urban	2	10	15	27	22	652	500	1174	June, July, Aug. Sep, Oct, Dec, Jan, Feb						
2.	Chikkaballa	0	0	80	80	0	0	3055	3055	Mar-2020						

Sl. No	District	No. of trainings/CB organized				No. of farmers involved				Time of conducting trainings by different Departments						
		IS	WS	WD	Total	IS	WS	WD	Total	Agri	Horti	Seri	AH	Fishes	Forest	
	pur															
3.	Chitradurga	0	8	15	23	0	222	1703	1925	Oct, Dec, Jan, Feb; June, July Aug						
4.	Davangere	1	5	29	35	49	144	1165	1358	Dec, Jan, Nov, June, Sep	Nov, Dec		Dec			
5.	Kolara	0	3	31	34	0	158	1505	1663	June, July, Sep, Oct Dec, Mar, Jan, Feb						
6.	Ramanagara	1	4	12	17	32	200	483	715	Nov, Dec, Jan						
7.	Shivamogga	1	7	13	21	28	392	729	1349	April, May June, Nov, Dec, Feb, March						
8.	Tumakuru	1	5	88	144	115	379	1943	2437	June, Aug, Sep, Oct, Nov, Dec, Jan, Feb, Mar						
9.	Chamarajanagara	0	4	12	16		195 (MD)	1388	1583	June, July, Aug, Sep, Oct, Nov, Dec						
10.	Chikkamagaluru	0	3	21	24		108	1143	1251	Jan, Mar, Sep, May, June, July, Aug, Sep, Oct, Nov, Dec						

Sl. No	District	No. of trainings/CB organized				No. of farmers involved				Time of conducting trainings by different Departments							
		IS	WS	WD	Total	IS	WS	WD	Total	Agri.	Horti	Seri	AH	Fisheries	Forest		
11.	Dakshina Kannada					71 MD	175 MD	702 MD	948 MD								
12.	Hassan	0	7	30	37		320	2241	2561	April, July, Aug, Sep, Oct, Nov, Dec	18-09-19	0	26-08-19				
13.	Kodagu	0	1	5	6		50	240	290	Feb 2020; May; Nov, Dec-							
14.	Mandya					114 MD	350 MD	1050 MD									
15.	Mysuru	0	17	52	69	0	311	1445	1756	April, June, July, Aug, Sept, Oct, Nov, Dec, Mar	Sep- Mar, Aug, Oct	July		March -July Aug			
16.	Udupi	1	3	28	33	45	80	1780	1905	Feb, April, June, Aug, Sep, Oct, Nov, Dec, Mar							
17.	Bagalkot	1	10	11	22	10	243	950	1203	July, Oct, Dec, Jan, Feb							
18.	Gadag	5	5	20	30	75	50	780	905	July, Oct, Nov, Dec, Jan, March							
19.	Uttara Kannada	6	20	41	67	87	494	1443	2024	May, June, July, Aug, Sep. Oct,							

Sl. No	District	No. of trainings/CB organized				No. of farmers involved				Time of conducting trainings by different Departments					
		IS	WS	WD	Total	IS	WS	WD	Total	Agri.	Horti	Seri	AH	Fisheries	Forest
20.	Bidar	5	4	7	16	75	195	605	955	Nov, Dec, Jan, Feb, Mar					
21.	Kalaburagi	1	1	1	3	105	350	1050	1285-	Dec, Jan, Feb, April					
22.	Yadgir	-	8	23	31	-	150	450	600	May, Sep, Oct, Dec					

IS: Interstate

WS-Within State

WD-Within District

Trainings conducted at appropriate times

The months in which trainings have been conducted to farmers in different districts is presented in Table -11. The training component is implemented in all the districts. It could be seen that trainings have been conducted in all the 12 months of the year in different districts. Starting from April of the financial year to March of the succeeding year. It was informed that the trainings are organized in different districts depending upon the unspent balance of funds at the start of the financial year, funds received from time to time, availability of resource persons, consent of the concerned trainings center, Institutes, KVKs etc.

The trainings/Capacity building conducted by other Departments

The trainings/Capacity building to farmers have been conducted by ATMA functionaries in all the districts. The allied sector officers have been involved as resource persons during training sessions. This aspect has been affirmed by the taluk level officers of allied sectors during focus group discussions held in the 19 sample taluks of Bengaluru, Mysuru and Kalaburagi Revenue Divisions.

The within state and within district trainings have been conducted in all districts. The financial achievements under the training component is satisfactory

6.2.3 Exposure visits and awareness generated

Exposure visits of farmers forms an important component of the activities under ATMA. Exposure visits of farmers from each taluk and districts are arranged to Krishi melas organized by Agricultural Universities, Research stations, Jatras, Fairs, Exhibitions, Field days and progressive and achiever farmers' fields. These exposure visits provide an opportunity for the farmers to witness the various recent and advanced technologies developed in Agriculture and allied sectors.

Exposure visits generated more awareness

During interactions with officers of the Department of Agriculture, ATMA functionaries, farmers, it was pointed out that the following modes of exposure visits normally create more awareness and are liked by farmers.

1. Exposure visits to Krishi Melas organized by Agricultural Universities at Bengaluru, Dharwad, Shivamogga, Raichur VC farm Mandya.
2. IIHR, Hesaragatta, Bengaluru
3. CPCRI, Kasaragodu.
4. 'Krishi Mela' at JSS Peetha Suttur, Mysuru District. Dasara Krishi mela at Mysuru.
5. District level and taluk level fruit and flower shows
6. Kisan Melas organized by KVKs of all districts
7. Pashu mela at Bidar.

Table 12: Details of exposure visits made district wise

Sl. No.	Districts	Number of EVs made				Number of farmers involved				Month of visits			Which EV generated more awareness
		IS	WS	WD	Total	IS	WS	WD	Total	IS	WS	WD	
1.	Bengaluru Urban	5	15	13	33	55	343	163	561	Oct-Dec; Feb	Sep, Jan, Feb, Dec, Aug	Sep, Oct, Jan, Feb	Zero Budget and Natural farming, IFS, Dairying, Poultry, Krishi mela, GKVK, IIHR, Hesaragatta
2.	Chikkaballapur		12	10	22		680	255	935		Sep; Oct; Nov; Feb	Oct	Krishi mela, Progressive farmers' fields, field days.
3.	Chitradurga		14	10	24		866	630	1496		Oct, Nov Jan, Feb, Mar	Sep, Jan, Oct, Feb, Dec	Vasundhara Agriculture Centre, Molakalnuru taluk.
4.	Davangere	5	6	31	42					Nov 2019 & Feb 2020	Oct	April, May, June, Aug, Sep, Oct	
5.	Kolar		13	4	17		1351	185	1536	-	May, Jan, Feb, Mar, Oct	Jun, Oct, Feb, Sep, Dec, Feb, Aug	Interstate and within state EVs.
6.	Ramanagara	2	4	8	14	120	150	320		Sep	Feb	Oct	Livestock Management, Soil and water conservation, Fodder crops, IFS in Horticulture crops
7.	Tumakuru	1	17	61	79	15	678	364	1057	Sep	Oct, Feb, Jan, Mar	Oct, Jan, Feb, Mar	Krishi mela, Horticulture mela, visit to Progressive farmers' fields.
8.	Chamarajanagara	1	4	2	7	106	862	673	1583	Dec	Sep, Oct	Oct, Dec	

Sl. No.	Districts	Number of EVs made				Number of farmers involved				Month of visits				Which EV generated more awareness
		IS	WS	WD	Total	IS	WS	WD	Total	IS	WS	WD		
9.	Chikkamagaluru			3	3	3	210	0	213		May, Jun, Sep, Nov	Jun, Sep, Oct, Dec	Progressive farmers' fields, Kisan Melas, KVKs, Exhibitions	
10.	Dakshina Kannada					68 (MD)	352 (MD)	421 (MD)	841					
11.	Hassan		18	14	32	0	1247	1583	2830		Feb, Mar, May, June, July, Sep, Oct	April, Jun, July, Aug, Sep, Oct		
12.	Kodagu	1	10	7	18	30 (MD)	556 (MD)	700 (MD)		Mar	May; July, Oct, Feb	Sep, Oct, Nov-Jan, Mar		
13.	Mandya					105 (MD)	1340 (MD)	700 (MD)						
14.	Mysuru	2	24	38	64	6	678	1403	2087	June-July	All months except Jan, April, May	Jan, Feb; July to Oct		
15.	Udupi	2	12	6	20	46	568	370	984	Oct, Jan	Sep, Oct, Nov, Jan	Sep, Oct		
16.	Bagalkot	1	11	10	12	10	708	600	1318	Dec	Jan, Feb	Sep, Oct, Dec	Krishi mela, Horticulture mela, visit to Progressive farmers' fields.	

Sl. No	Districts	Number of EVs made				Number of farmers involved				Month of visits			Which EV generated more awareness
		IS	WS	WD	Total	IS	WS	WD	Total	IS	WS	WD	
17.	Gadag	5	16	14	35	75	660	505	1240	Oct.	Jan, Feb, Mar	July, Aug, Sep, Oct,	Visit to national Institutes, Krishi mela, Project farmers' fields, Horticulture mela;
18.	Uttara Kannada	7	31	29	67	129	1076	1172	2377	Nov, Dec, Jan, Feb, Mar	Oct, Nov, Dec, Jan, Feb	May, July, Aug, Sep, Oct, Nov, Jan, Feb, Mar	<ul style="list-style-type: none"> • Desi Cow byproducts • Krishi melas • Cultivation and marketing of Tuber crops • Visit to progressive farmers' fields.
19.	Bidar	8	15	15	38	150	475	1020	1645	Nov, Feb,	Dec,	Sep, Dec, , Jan, , Feb	<ul style="list-style-type: none"> • Millet's processing and instant food making • Animal breeding
20.	Kalaburagi	1	1	1	3	105 (M D)	742 (MD)	700 (MD)	1547 -	Aug, Sep, Dec			
21.	Yadgir	-	5	10	15	-	190	300	490		Dec	Oct, Dec	Krishi mela, Raichur, Visit to progressive farmers' fields

*MD-Mandays

Exposure visits conducted at appropriate times

The exposure visits, majority of these have been organized during the cropping season and on the occasion of Krishi mela and exhibitions organized during October to December of each year. In the Agriculture and Horticulture Universities, Indian Institute of Horticulture Research, Hesaragatta, during fairs and Jatras and local Agricultural exhibitions.

Exposure visits of farmers from different taluks have been made to the following:

1. Krishi Mela's organized by the agriculture universities, Horticulture universities, Veterinary & Fisheries universities.
2. 'Horticulture Mela' organized by IIHR, Hesaragatta, Bengaluru.
3. Dasara Exhibition at Mysuru
4. Annual Krishi mela and exhibition organized by JSS, SUTTUR Mysuru District
5. Raitha Dasara and Exhibitions organised by different Krishi Vignana Kendras,
6. District level exhibitions on Agriculture and allied activities
7. Progressive farmers' fields
8. Agriculture marketing and training institute Mysuru
9. Pepper Research Station, Panniyar Kerala
10. IIHR Chettahali
11. VC, farm, Mandya
12. CPCRI Kasaragodu
13. Krishi Exhibition at Dharmastala
14. Kadamba organic market, Sirsi
15. Food processing organizations at Ralegaosiddi & Kolhapur, MH State.

Exposure visits have been organised by different taluks and districts depending upon the needs of the farmers. Farmers in general have affirmed that the Krishi Melas organised by different Agriculture, Horticulture and Veterinary universities are most liked due to the exposure of farmers to different aspects of farming from seed to marketing and the latest technologies in Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries, Forestry, Processing, Value addition and all that a farmer's needs.

The farmers of coastal and Malnad districts are happier to visit the CPCRI, Kasaragod.

The within state and within district exposure visits have been organized in all the districts. Interstate exposure visits have not been done in

Chikkamagaluru, Chitradurga, Kolar and Hassan districts.

The Financial expenditure under the component is satisfactory in all the districts.

6.2.4 Participation of NGO's

Activities assigned to NGOs

NGO's have not been involved in the planning process of ATMA during 2019-20. Activities have not been assigned to any NGO's either at state, districts or taluks level. Some local NGO's have been entrusted with the execution of some activities like trainings, EVs, Krishi Exhibition etc.

Details of the activities in which NGO's are entrusted are shown in below table. No 13.

NGO's performance as per the guidelines

Since no NGO has been assigned with the planning and implementation of ATMA scheme activities, the performance of NGO's as per guidelines does not arise. However, the response of the Project Directors is furnished in table 13

Assessment of Participation of NGOs in implementation process

Though, Some NGOs are entrusted with the implementation of a few activities and they have been paid for the work done. Hence, assessment of NGOs does not arise. Responses of the Project Directors are given in table 13

Table 13: District wise participation of NGOs, their performance as per guidelines and their assessment

Sl. No	Districts	which activities have been assigned to NGOs	Are the NGOs performing as per guidelines	How do you assess the participation of NGOs in implementation process
1.	Bengaluru Urban	Krishi mela at Mysore Dasara		
2.	Chikkaballapur	Kalajathas		Except kalajathas no other activities are conducted/implemented by NGO
3.	Davangere		Yes	As a resource person for training and group formation

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Sl. No	Districts	which activities have been assigned to NGOs	Are the NGOs performing as per guidelines	How do you assess the participation of NGOs in implementation process
4.	Hassan	Not assigned- NGOs such as Vijaya Karnataka involved in district level exhibition. NGOs such as organic federations. SKDRDP involved as resource persons in trainings, EVs, FS etc.		
5.	Mandya	Involved in EV, trainings, FS, Demos as resource person	Yes	NGOs such as SKDRDP, Organic growers' groups, progressives' farmers were voluntarily involved physically in implementation of many activities of ATMA trainings, Demonstrations, Farm schools and exposure visits etc. but not financially allocated the grants
6.	Mysuru	Food mela and Kisan Goshties involved	Yes	Participation in implementation is assessed through number and topic chosen for training, programmes, number of participants and also with the number of associations with agriculture and allied Departments for their programmes conducted.
7.	Udupi	Involved in trainings and EVs as resource persons SKDRDP	Yes	With the help of SKDRDP implemented the ATMA activities like training and exposure visits.

Sl. No	Districts	which activities have been assigned to NGOs	Are the NGOs performing as per guidelines	How do you assess the participation of NGOs in implementation process
8.	Belagavi	<ul style="list-style-type: none"> • Training, Capacity building, Skill development of farmer groups. • Farmer awards, district level exhibition, technology information for publications, FSI, Joint visits, FS 	Yes. As per guidelines they are performing	Assess for Infrastructure, Technical capability, past record of services, mobility, involvement etc.
9.	Dharwad	Capacity building	Yes. Performing as per guidelines	One can assess by giving trainings to farmers/farm women and are involving recognised NGOs in ATMA
10.	Haveri	FIG trainings	Yes	Good communication with the farming community in their local language along with needful sources.
11.	Uttara Kannada	Cocom mela. Coconut neera production	Yes	
12.	Koppal	EV	Yes	Good communication with farming community in their local language along with needful sources

I. Reason for low participation

Secondary information furnished by the Project Directors of ATMA in the districts has been perused. They have not assigned any 'specific' reason for the non-inclusion of NGOs in the planning and implementation process. Few project Directors have expressed that it will be ensured in the coming years.

Lack of efforts at district level to identify the NGOs and other agencies on the basis of merit and approval of GB.

II. Registration in DARPAN Portal.

The secondary information furnished by the Project Directors of the districts has been perused. They have informed that the NGOs themselves are not aware of the DARPAN Portal. Only the Project Director, Gadag district has informed that DEAL foundation involved to implement the ATMA activities is registered under DARPAN Portal.

Suitable instructions from the concerned authority to district level need to be provided.

6.2.5 Involvement of different stakeholders

Secondary information furnished by the districts say 'Yes' in 14 districts. But the process of involvement of the stakeholders and who are involved is not known.

- Only ATMA functionaries are involved in planning and implementation of ATMA activities in all districts.
- NGOS in some districts have been entrusted with the tasks of implementing some activities for which they have been paid. (Already Discussed).
- Officers of allied sectors have participated in the ATMA GB and BTT meetings.
- Other than these other stakeholders have not been involved in planning and implementation of ATMA activities.

Responses of Project Directors furnished are furnished in table.

Table 14: Involvement of different stakeholders

Sl. No	District	Whether involvement of different stakeholders is as per guidelines
1.	Bengaluru	Yes
2.	Kolar	Yes
3.	Ramanagara	Yes
4.	Shivamogga	Yes
5.	Chamarajanagara	Yes
6.	Dakshina Kannada	Yes
7.	Hassan	Yes
8.	Mysuru	Yes
9.	Bagalkot	Yes
10.	Belagavi	Yes. Involvement of different stakeholders is as per guidelines
11.	Gadag	Yes
12.	Haveri	Yes
13.	Uttara Kannada	Yes
14.	Bidar	Yes
15.	Kalaburagi	Yes
16.	Koppal	Yes

Involvement of FPOs, NGOs and SHGs and SC/STs

During 2019-20 the subject of formation of FPOs was in the initial stages of its inception and the topic of formation of FPOs in the districts in the Department of Agriculture and involvement of ATMA farmer group members in these NGOs has been discussed in some of the committee meetings.

This subject can be given more importance in the ensuing years.

The extent of Involvement of NGOs in the planning and implementation of ATMA activity in the district has already been discussed in the report. The extent of involvement can be further increased if the guidelines 2018 are followed.

The SHGs have been involved in the trainings and exposure visits of ATMA scheme in some districts.

The involvement of SC and ST farmers in the various ATMA Committees at district and taluk levels needs to be strengthened based on the provisions made for these groups in the ATMA guidelines and prevailing provisions in the State Government.

6.2.6 Performance of SAMETI's

The timeline of activities performed at SAMETI's

Details of the timeline of activities performed by SAMETI's, GKVK, Bengaluru and Dharwad are furnished in table 15

Other activities SAMETI's are involved

Details of other activities performed or involved are furnished in table.

Table 15: Timeline of activities at SAMETIs

SAMETI, Bengaluru		SAMETI, Dharwad	
24th May 2019 to 31 May 2019-	2 trainings	2nd July 2019 to 31st July 2019	08 trainings
18th-21st June 2019-	01 training	1st Aug to 6th Aug 2019	02 trainings
29th to 30th July 2019	01 training	4 Sep to 19th Sept 2019	02 trainings
5th August to 27th Aug 2019	04 training	5th Oct 2019 to 22nd October 019	02 trainings
23 Sept to 30 Sept 2019	04 training	7th November to 29th November 2019	07 trainings
14 oct to 19th Oct 2019	01 training	10th December to 19th December 2019	02 trainings
22nd Nov 2019	01 training	8th Jan to 31st Jan 2020	02 trainings
28th Jan 2019	02 training	7th Feb 2020	01 training
6-7 Feb 2020	01 training		
Other activities SAMETIs are involved			
		<ul style="list-style-type: none"> Organized Exposure visits to Tamilnadu State in 4 Batches from 24th Dec to 10th Jan 2020 to ATMA functionaries' extension functionaries from 13 districts 	
<ul style="list-style-type: none"> Organized DAESI Programme to input dealers 		<ul style="list-style-type: none"> Co-ordinated the MANAGE in conducting DAESI course of 1 year duration at 28 Nodal centers for Input dealers 	
<ul style="list-style-type: none"> Co-ordinated 4 MANAGE sponsored trainings from 4 Sept 2019 to 24 Jan 2020 		<ul style="list-style-type: none"> State level Exhibition organized at UAS, Dharwad from 18-20 the Jan 2020 	
<ul style="list-style-type: none"> Organized State level exhibitions at UAS, GKVK Bengaluru 			

6.3 Efficiency /output

6.3.1 Effectiveness of various committees

The ATMA mode of Agriculture extension aims at delivery of appropriate technology and improved Agronomic practices to farmers. This is envisaged to be achieved by a judicious mix of extensive physical outreach, interactive methods of information dissemination, use of ICT, popularization of modern and appropriate technologies. The purpose is further strengthened by involving farmers of Agriculture and allied sectors, NGOs, Local DAESI

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trained input dealers, AC&ABC trained extension service providers etc. in the Farmers Advisory Committees established at State, district, and taluk levels. For this purpose, the following committees have to be set up at various levels.

- | | |
|-------------------|---|
| 1. State Level | 1. Inter Departmental working group (IDWG) |
| | 2. SAMETI Executive Committee |
| | 3. State Farmers Advisory Committee (SFAC) |
| 2. District Level | 1. ATMA Governing Body (ATMA GB) |
| | 2. District Farmers Advisory Committee (DFAC) |
| 3. Taluk Level | 1. Block Technology Team (BTT) |
| | 2. Block Farmers Advisory Committee (BFAC) |

In order to see that agriculture extension and technology go hand in hand, Technical Administrative and Regulatory functions have been provided to these committees and also function as supervising bodies at various levels.

The committees are the policy making bodies and give overall directions and guidance to the field functionaries.

Topics like committees formation, year of formation, meetings conducted SC, ST and women farmers involved in committees has already been discussed.

6.3.2 Support of SAMETI and KVK

The two SAMETI's set up by the Govt of Karnataka to ensure regular training and skill upgradation of state and district/taluk level extension functionaries have the following duties to perform.

1. Provide capacity building support in extension management related areas to the extension functionaries from Public, Private and Non-governmental sectors.
2. Organize need based training programmes for middle level extension functionaries.
3. Organize annual workshop involving all the Agricultural related training institutes in the State to achieve complementarity in training and capacity building for functionaries of Agriculture and allied Departments.
4. Will co-ordinate with manage in organizing DAESI Programme.
5. Conducting training need assessment.
6. Organizing exposure visits
7. Publication of success stories
8. Publication of literature
9. Conducting training and refresher courses for Extension workers.

Details of the activities performed by the two SAMETIs in below table indicate that SAMETI, Bengaluru is short of complying with the requirement in the guidelines.

The topic pertaining to SAMETI s has already been discussed under training and capacity

building of extension functionaries.

Performance of KVKs:

ATMA scheme provides for active involvement of Research System / Research agencies at different level of Implementation. The Krishi Vigyan Kendra's (KVKs) working in the state have to be fully involved not only in preparation of SREP and Extension work plans but also in implementation of various programmes in the field. They have to be represented in all advisory bodies, namely ATMA Governing Board in districts, SLSC/IDWG at state level and BTT, BFAC meetings at taluk level. The KVK Scientist will technically advise the BTT and will also be involved in preparation of BAPs especially with regard to research related issues/gaps and strategies. He will also take the feedback from the colleagues in the KVK in their respective areas of expertise. The KVKs also act as a repository of technologies in Agriculture and allied sector suited to specific local situations.

The KVKs involved in ATMA, district is presented in below table. The responses of the districts are also provided. It can be seen that the KVKs in all the districts are catering to the needs of ATMA satisfactorily.

Table 16: The KVKs involved in ATMA districts and division wise is presented in below

Sl. No	District	Name of KVKs	Whether KVK has performed its duties assigned under ATMA
1.	Bengaluru Urban	KVK, Hadonahalli	Yes. Involved in all activities including meetings
2.	Chikkaballapur	KVK, kuruburu, Chinthamani	Yes. Involved in all activities including meetings
3.	Chitradurga	KVK, Babburu, Hiriyuru taluk	Yes. Involved in all activities including meetings
4.	Davangere	Taralabalu KVK Davangere	Yes. Involved in all activities including meetings
5.	Kolara	KVK, Kolar	Yes. Involved in all activities including meetings
6.	Ramanagara	KVK Chandurayanahalli	Yes. Involved in all activities including meetings
7.	Shivamogga	KVK Shivamogga	Yes. Involved in all activities including meetings. FD, KG, FS
8.	Tumakuru	KVK Tiptur KVK Hirehalli	Yes. Involved in farmer-oriented activities including meetings
9.	Chamarajana gara	KVK Hardanahalli	Involved in district level Krishi mela. Attended 5 meetings of GB & DFAC. Participated in FSI, FD, KG, FS
10.	Dakshina Kannada	KVK, Mangaluru	Attended all meetings of GB & DFAC. Participated as resource persons in FSI and field days. Also involved in Joint visits of scientist and officers and farmers award

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Sl. No	District	Name of KVKs	Whether KVK has performed its duties assigned under ATMA evaluations
11.	Hassan	KVK, kandali	Involved in all ATMA activities including attending meetings.
12.	Kodagu	KVK, Gonikoppa	Attended meetings of GB and DFAC. Participated in FSI, FD, KG, FS
13.	Mandya	KVK, VC farm, Mandya	Attended all meetings of GB and DFAC. Involved in ATMA activities including FSI, FD, KG, FS
14.	Mysuru	JSS KVK Suttur	Involved in all ATMA activities including GB and DFAC meetings. Attended FSI, FD, KG, FS
15.	Udupi	KVK, Brahmavara	Involved in all ATMA activities including GB and DFAC meetings. Attended FSI, FD, KG, FS
16.	Bagalkot	KVK, Bagalkot	Attended meetings FSI, FD, KG, FS, action plans, SREP, Demos
17.	Belagavi	BIRDS KVK, Tukkanatti; KLE KVK, Mattikoppa	The two KVKs here performed their duties assigned under ATMA. Attended GB meetings, DFAC meetings, ATMA award meetings. FD at district & taluk level. KG-taluk level; FS-taluk level
18.	Dharwad	UAS, Dharwad	Involved in FSI, FD, KG, FS
19.	Gadag	K H Patil ICAR KVK, Hulkoti	Yes. KVK has been active partner in implementation in Gadag district. Actively involved in ATMA activities
20.	Haveri	KVK, Hanumanamatti	Yes. Involved in all activities including meetings
21.	Uttara Kannada	KVK Sirsi	Yes. Involved in all activities including meetings
22.	Vijayapura	KVK Vijayapura; KVK Indi	Yes. Involved in all activities including meetings
23.	Ballari	KVK HAGARI ARS, SIRUGUPPA AEEC HADAGALI KVK GANAGVATHI	Involved in all activities including meetings
24.	Bidar	KVK Bidar	Yes. Involved in all activities including meetings
25.	Kalaburagi	KVK Kalaburagi	Involved in Trainings, FSI, KG

Sl. No	District	Name of KVKs	Whether KVK has performed its duties assigned under ATMA
26.	Koppal	KVK Gangavati AEEC Koppal	ATMA activities, meetings FSI, FD, KG, FS.
27.	Raichuru	KVK Raichuru	Yes. Involved in all activities including meetings
28.	Yadgir	KVK, Kawadimatti. HEEU Yadgir	All activities including training & meetings

Tying with KVKs, RSKs and Agri startups for effective outcomes.

The State Agriculture Universities and Krishi Vignana Kendra's act as a repository of technologies in Agriculture and allied sectors suited to specific local situations. All the KVKs in the State are already involving in ATMA planning and implementation. The active participation of SAUs in the ATMA needs to be enhanced by necessary interventions at suitable level.

The ATMA functionaries at taluk level namely the Block Technology Managers and Assistant Technology Managers are already working in close association with RSKs. And, in fact, majority of the agriculture programmes are being implemented by the ATMA functionaries.

The issue of tying up with Agri startups in the State may be given a thought by the concerned authorities in the ensuing years.

6.3.3 Performance of farmers groups and food security groups

Formation of farmers groups as per norms prescribed

As a part of successful implementation, the ATMA scheme focuses on adopting group approach to extension in line with the identified needs and requirements of the farmers in the form of CIGs & FIGs. Also, to ensure household food and nutritional security, farm women's Food Security Groups are also envisaged.

In line with the guidelines, the points need to be considered for the formation of farmers groups.

- 1) CIGs/FIGs should be promoted/mobilized for all major commodities (size 20-25 farmers).
- 2) The members of these groups should meet at least once in a month to discuss activities and to decide future course of action.
- 3) BTT and BFAC should monitor functioning of all CIGs on a regular basis.
- 4) CIGs at village level should be federated at taluk level and subsequently at district level into farmer's producers' companies.
- 5) CIGs should maintain proper register and records. (Commodity /Proceedings /Savings /accounts).

The ATMA guidelines 2018 does not provide any specific guidelines for the formation of

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Farmers Interest Groups, Commodity Interest Groups. It only says that the size of the groups should be 20-25 member farmers and that they should meet at least once in a month. The ATMA Annual action plan 2019-20 provides for capacity building, skill development and support services for RSGs and FSGs at 5 RSGs and 7 FSGs in each block.

During field visits, one or two farmers group in each sample taluks have been visited. It was observed that the new farmers groups have been formed keeping in view the size of the farmers groups. Capacity building on different aspects of agriculture and allied sectors topics have been given and the group members have also been taken for exposure visits, field days, kisan melas, FSI etc.

District wise secondary information furnished by the Project Directors (ATMA) is presented in table 17.

6.3.4 Involvement of farmers group in ATMA activities

The farmer groups are involved in ATMA activities. The response of the Project Directors of the districts is presented in table 17.

Table 17: Details of farmer's group mobilization, their involvement in ATMA activities and formation as per norms

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
1.	Bengaluru Urban	Staff under ATMA has motivated farmers by convergence of extension related efforts, based on identified needs and requirements of the farmers. Related capacity building trainings has been given to the group members and thereby helping them strengthen their team activities and marketing linkages.	Trainings, Demos, EV, FS, KG, FSI etc.	Maximum norms are followed and concerned resource person has explained the groups about how to maintain documents, how to conduct meetings, how to approach banks, how to maintain cashbooks, how to do saving in banks etc.
2.	Chikkaballapur	Since ATMA is in group approach and executing FS related to all sectors All sectors' farmers are in contact with ATMA institutions. All most all progressive farmers are in touch with taluks ATM, these helped mobilization of ATMA groups in the taluks	Farm school Organizing demonstrations and help as para technician, trainings, innovative activities	Yes. All groups are formed as per norms prescribed and guidelines of ATMA.
3.	Chitradurga	Capacity building, skill development trainings, EV, demonstration to FIG, CIG farmers and etc.	<ul style="list-style-type: none"> • Capacity building • Skill development 	Yes
4.	Davangere	Increased annual income and stable financial status	<ul style="list-style-type: none"> • EV. • Trainings. • FD. • Demonstration 	Yes
5.	Kolar	Staff under ATMA has motivated farmers by convergence of extension related efforts, based on identified needs and requirements of the farmers. Related capacity building trainings has been given to	<ul style="list-style-type: none"> • Trainings • Demonstrations • Exposure Visits • Farm School 	Maximum norms are followed and concerned resource person has explained the groups about how to maintain documents,

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
		the group members and thereby helping them strengthen their team activities and marketing linkages.	<ul style="list-style-type: none"> • Kisan Goshties • Farmer Scientist Interaction etc. 	how to conduct meetings, how to approach banks, how to maintain cashbooks, how to do saving in banks etc.
6.	Ramanagara	ATMA have initiated the formation of groups of farmers as FIGs, FSG & RSGs. And also, the training for these groups is also taken up along with the distribution of seed money to these groups.	RSGs, FIGs, FSGs are provided with trainings on required topics.	Yes
7.	Shivamogga	As per ATMA guidelines there is no mandatory for registration for group formation. So, the like-minded farmers/ farm women come together to form groups.	<ul style="list-style-type: none"> • Trainings, • Exposure visits, • Capacity building • Skill development 	Yes
8.	Tumakuru	ATMA helps in social mobilization of farmers, training given to the group, regarding income generating activities in the village. They can adopt innovative technologies developed by KVKs, universities. To progressive farmers help the groups to achieve the new technology adoption. Locally developed technologies by progressive farmers, sharing the knowledge to the groups helps in technology adoption.	Involved in ATMA activities like trainings, EV, KG, FS, exhibitions, demos etc.	As per norms prescribed
9.	Chamarajanagara	ATMA have initiated the formation of groups of farmers and registration as FIGs FSGs & RSGs. For sustainable living these groups are trained with marketing strategies and ways to improve their skilled field along with the distribution of seed money as	RSGs, FIGs, FSGs are provided with trainings in required topics.	Yes

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Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
10.	Dakshina Kannada	<p>financial support for these groups.</p> <ul style="list-style-type: none"> • Gave extra financial support to start their business. • They got more information and improved their knowledge regarding different agriculture activities. 	<ul style="list-style-type: none"> • Through trainings. • BFAC/DFAC meetings. • Exposure visits were planned for farmers groups 	Yes
11.	Hassan	Staff under ATMA has motivated farmers by convergence of extension related efforts based on identified needs and requirement of farmers. Related capacity building trainings has been given to the group members and thereby helping them to strengthen their team activities.	Farmers are involved in all the training programmes, EV, FS, KG, etc.	Maximum norms are followed and concerned resource person has explained the groups about how to conduct meetings how to maintain documents, how to approach banks etc.
12.	Mandya	ATMA BTMs& ATMs are motivating farmers by grouping convergence of execution related activities based on the extension gaps identified in SREP and identified needs/requirements of the farmers they mobilize the groups. Capacity building training has been given to the group members and thereby helping them to strengthen their team activities. By EV they got knowledge regarding their group motivation. By giving revolving fund/seed money they strengthen their groups little bit. By regular meeting they got motivation and coordination between group members.	<ul style="list-style-type: none"> • Training • Exposure Visits • BFAC group meetings & activities. • Farm School. By attending and involving in all activities of components 	Yes, followed all the prescribed norms. If the group members number is within 20 no need of group registration and when the group members are above 20 members. These groups are registered and form as per norms prescribed.
13.	Mysuru	ATMA have initiated the formation of groups of farmers and registration of FIGs, FSG s& RSGs. And	RSGs, FIGs & FSGs are provided with trainings on	Yes

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
14.	Udupi	<p>also, the trainings for these groups are also taken up along with the distribution of the seed money to these groups</p> <p>ATMA helped the farmers providing them by access to new technologies, collective procurement of inputs as per needs and disposal of their produce at a better negotiable price than the price in past; i.e., individual approach. It has helped to a great extent by diversification and introduction of new commodities/areas. A large number of success stories have been witnessed with the community approaches in various areas namely seed production, diversification production of milk, fruits and vegetable floriculture etc. capacity building skill development, group record maintenance training programme conducted and also given seed money.</p>	Yes	Yes. Farmers groups are created as per norms of ATMA guidelines.
15.	Bagalkot	<p>ATMA played a vital role in mobilizing the farmers groups by enriching the knowledge and giving wide exposure to the different innovative activities such as providing information on agriculture & allied Departmental farmers welfare schemes. NABARD schemes, start-up India project, food processing & packaging, value addition, warehouse facilities PMFBY, women health & nutrition. Self-entrepreneurship, loan from public sectors banks, Co-operative sector banks and private sector banks for</p>	<p>Most of farm men and women after getting knowledge from ATMA in turn they will enrich the knowledge of common farmers in their local knowledge and style which is more effective than any method of extension and</p>	Formed as per the norms

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Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
16.	Belagavi	<p>agriculture and allied aspects.</p> <p>ATMA helped in mobilization of farmers groups like FIGs, CIGs, FSGs in all taluks by way of strengthening their skills through capacity building programmes. ATMA encouraged active participation of local members of groups from realizing their goals and overcome particular issues. ATMA also guided them by giving appropriate trainings and technologies through KVKs & also through visits to progressive farmer fields, research centers, FPOs to achieve self-sustainability.</p>	<p>communication of knowledge.</p> <p>EV, trainings, KG, KM, exhibitions, group representatives shared knowledge in many awareness programmes conducted by ATMA. Participation in FPO initiated programmes and come forward to form their own FPOs. Groups utilized. Seed money for value addition of their products and purchase of equipment. Made use of knowledge gained in ATMA trainings &EV for their self-employment & women empowerment. Some group members contributed in development & implementation of ATMA scheme by becoming members of ATMA</p>	<p>Yes, as per norms prescribed</p>

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
17.	Dharwad	Farmers groups mobilized through Capacity building training, Groups discussions, Exposure visits in panchayath level and through success stories	committees BFAC, DFAC, SFAC. Field days, Exposure visits, demonstrations trainings	
18.	Gadag	Under ATMA activities along with capacity building and skill development, the groups were also involved in other activities like trainings, EV, demos based on the local requirements of members of the groups.	Different activities like EV, trainings, demos were concentrated mainly on the FIG & FSG groups. Looking into the local responses and the needs of the groups, trainings & EVs were planned	Yes. All the prescribed norms were followed while forming groups.
19.	Haveri	ATMA has helped to group the farmers with different prospection to achieve a standard improvement through trainings		Yes
20.	Uttara Kannada	ATMA helped to group in the form of providing information on new agriculture technologies and allied sector technologies through trainings, EV, demonstrations in their fields. ATMA official regularly conducted field visits and trainings in farmers' fields and also gave awareness to farmers regarding use of farmers groups in achieving sustainable agriculture income.	Yes	Yes. The groups formed as per norms prescribed.
21.	Ballari	Group formation under ATMA scheme had helped farmers to access best training under ATMA scheme	Some member farmers are BFAC members and many	As per norms prescribed. ATMA groups have formed

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
22.	Bidar	and exposure to various melas and progressive farmers' fields to inspire the member farmer of groups and financial help from various banks and also seed money provided to implement new technologies ATMA played a vital role in mobilizing the farmers groups by enriching the knowledge and giving wide exposure to the different innovative activities such as providing information on agriculture & allied Departmental farmer's welfare schemes. NABARD schemes, start-up India project, food processing & packages, value addition, warehouse facilities PMFBY, women health & nutrition. Self-entrepreneurship, loan from public sectors banks, Co-operative sector banks and private sector banks for agriculture and allied aspects	are actively involved in demos, trainings, EVs Most of farm men and women after getting knowledge from ATMA in turn they will enrich the knowledge of common farmers in their local knowledge and style which is more effective than any method of extension and communication of knowledge	Formed as per the norms
23.	Kalaburagi	ATMA focus on identifying the farmers skills and resources available in the village and helps pooling them to a particular aim to achieve some goals to meet their needs	Main aim of ATMA is mobilization of farmers and it focuses on group-based activities like, demos, field visits, market led activities for a different type of groups.	Yes, formed as per norms prescribed
24.	Koppal	ATMA has helped to group the farmers with different, prospection to achieve standard improvements through trainings, EVs and capacity building trainings	Trainings, EV, FS, KG etc.	Yes

Sl. No	Districts	ATMA's help in mobilization of farmers groups	Groups formed as per norms prescribed	Involvement of ATMA in activities
25.	Raichuru	This has helped the farmers providing them easy access to new technologies, collective procurement of inputs as per their needs and disposal of their produce at a better negotiable price than the practice in past. i.e., individual approach. It has helped to a great extent in diversification and introduction of new commodities areas. A large number of success stories has been witnessed with the community approaches in various areas namely seed production, diversification, production of milk, fruits and vegetables, organic Farming Floriculture etc.	Groups formed under ATMA scheme, capacity building, skill development and group record maintenance training programme conducted and also given seed money under ATMA.	Yes. Farmer groups are created as per norms of ATMA guidelines
26.	Yadgir	Capacity building and trainings Exposure visits, which has created awareness in farmers groups.	Involved in trainings, Exposure Visits, Organizing Kisan Goshtries	Yes. Formed as per norms prescribed

* FD-Field Day

Number of farmer groups functioning

Details of the functioning farmers groups in each district is presented in table-17.

6.3.5 Number of women /SC/ST/OBC farmers benefitted

One of the main focal points in ATMA scheme is to address gender concerns by mobilizing farm women into groups and provide training to them. In addition to this is also reiterated to provide representation to women, SC and ST farmers in the Farmers Advisory Committees formed at state, district and taluk levels.

ATMA guidelines 2018 provide for the following: -

SFAC- out of the progressive farmers nominated from each district in the state, one third would be women.

Adequate representation should be given to SC/ST farmers.

DFAC- Out of 5 state level awardee farmers nominated by the district head of agriculture, due representation to women SC, ST farmers to be given.

BFAC- Out of 25 progressive farmers and farmer awardees nominated, one third would be women farmers.

Adequate representation should be given to SC/ST farmers.

Women, SC, ST, OBC Farmers benefitted under ATMA activities

Number of SC, ST and women members in the committees is provided here based on the information furnished by the districts.

Committee	SC	ST	Women
SFAC	4	1	9
ATMA GB	32	19	47
DFAC	54	44	102

Number of SC, ST, women farmers benefitted in each district and their percentage to the total number of farmers benefitted in each district is presented in table 18.

It can be seen that the percentage of SC farmers benefitted range from a minimum of 4 percent in Ramanagara district to 26 percent in Chamarajanagar district.

The percentage of ST farmers benefitted in the districts range from a minimum of 0.50 percent in Ramanagara districts to 16 percent in Haveri district.

The women beneficiaries in the districts range from a minimum of 7 percent in Kalaburagi district to a maximum of 73 percent in Davangere district.

In the districts where the beneficiary farmers belonging to SC, ST, OBC and women categories is less than the prescribed percentage, they should be involved in ATMA activities to the extent for which they are due.

Activities they are involved

From a review of the secondary information provided at state, district and taluk level it is

observed that women, SC, ST and OBC farmers have participated in the following activities.

1. Trainings
2. Exposure visits
3. Farmers groups
4. Demonstrations
5. Farmer awards
6. District level exhibitions/Kisan Melas/Fruit and vegetable shows.
7. Farmers-Scientist interactions
8. Kisan Goshties.

ATMA facilitated/influenced women to participate in the activities

ATMA scheme is a part and parcel of the Department of Agriculture in Karnataka. ATMA functionaries have been functioning in the Department from hobli level to Directorate of Agriculture. ATMA functionaries at district level that is Deputy Project Director and at taluk and hobli viz. Block Technology Manager and Assistant Technology Manager work with the officials of the Department and participate in many activities of the Department of Agriculture. ATMA functionaries are functioning in the department since 2007-08. They plan and execute almost all activities of the agriculture department in addition to their works of ATMA. The functionaries have been in contact with the farmers for so many years and with their rapport with the farmers they propagate the activities of ATMA. They have been in contact with the farmers group members of CIG, FIG and FSGs farmers award winners and other farmers who undergo various trainings, exposure visits, attend FSI, KG of both ATMA and agriculture department. They are also in contact with farmers of allied sector for so many years under ATMA.

All these factors help the ATMA functionaries to spread the information related to ATMA and through all these activities and farmer groups they contact the women farmers and select them and motivate them to participate in group activities, trainings, EVs, KGs etc. whenever required.

Role of women in ATMA activities

Addressing gender concern by mobilizing women farmers into groups and provide training to them is one of the focal points in an attempt to reform the extension system through ATMA. Minimum 30 percent of resources meant for programmes and activities are required to be allocated to women farmers and women extension functionaries. Keeping these broad objectives in view, ATMA has mobilized the three kinds of farmer groups – CIGs, FIGs and FSGs during 2019-20.

These farmer's group members have received trainings in various topics of agriculture and allied sectors. To mention a few, the knowledge imparted in these trainings have been done by ATMA functionaries, NGOs and officers of Agriculture and allied sectors. Women members receiving training in so many broad aspects of agriculture and allied subjects have broadened their knowledge base. These farmer's group members are also taken for exposure visits outside the state, within state, within districts during krishi mela, fruit and vegetable shows etc.

They are also actively involved in farmer-scientist interactions, Kisan Goshties, farmer awards, farm schools etc.

The Specific aspects of training received by the women farmers of the 29 districts are as under: -

- 1) Formation of farmers groups and food security groups.
 - 2) Training on conducting group meetings, maintenance of proper documents, approaching the banks for financial assistance, maintenance of proper records, availing loan from public sector banks to supplement their group efforts, pooling of the resources for a common cause.
 - 3) Approaching the ATMA personnel for obtaining the seed money to further their individual and group efforts.
 - 4) Training in income generation activities like dairying and feed management, Sheep and Goat rearing, Honey bee keeping, Mushroom cultivation, Kitchen gardening, Fish culture, Jam Jelly and Pickle making.
 - 5) Skill development in the income generation activities.
 - 6) Market linkages and value addition.
 - 7) Contact with other departments and exposure visits to FPOs.
- The SAMETI, UAS Dharwad has also imparted training to the women SHG representatives on “empowerment of women through group activities”.

Effect of ATMA intervention on women participants

During field visits in 19 sample taluks the farmers group members actively interacted and expressed the view that ATMA has empowered them to participate in ATMA activities, meetings and through group activities they are exposed to the outside and are more aware of the activities of ATMA and allied sectors.

The primary and secondary data has indicated the below impacts of ATMA during 2019-20.

- 1) Through the formation of farmers groups and food security groups, ATMA has contributed much towards organising and motivating women to come together as a team to achieve their immediate goals like small savings, pooling resources, conducting meetings, documentation, approach banks for financial support, record maintenance and thus empowering them to face the challenges.
- 2) By pooling their resources and utilizing the financial support extended by ATMA in the form of seed money the farmer’s group and FSGs have been able to start income generating activities like Dairying, Feed management, Sheep and Goat rearing, preparation of Jam, Jelly, Pickles, Honey bee, Kitchen gardening, Fish culture, value addition etc. with these activities they have been able to supplement their resources.
- 3) The women participants had access to best trainings about the needy subject in their local areas.
- 4) The exposure visits and visits to progressive farmers’ fields have inspired and motivated them to adopt improved technologies in their farms.
- 5) About 52.3 percent of the beneficiary farmers have preferred ATMA (Agriculture) to access the information related to agriculture sector and other sectors.

Table 18: Details of Number of SC, ST, OBC and women farmers benefitted

Sl. No	District	Total farmers benefitted	SC		ST		OBC		Women		
			No	%	No	%	No	%	No	%	
1.	Chikkaballapur	3147	313	10	348	11	1136	36	572	18	
2.	Chitradurga	1296	115	9	72	6	88	7	200	15	
3.	Davangere	460	45	10	55	12			337	73	
4.	Kolar	5471	736	13	323	6	1324	24	874	16	
5.	Ramanagara	3153	129	4	16	0.5	648	21	1227	39	
6.	Shivamogga	4303	503	12	326	8	2285	53	1358	32	
7.	Tumakuru	3426	342	10	194	6	679	20	1080	32	
8.	Chamarajanagara	4444	1159	26	651	15	788	18	1100	25	
9.	Dakshina Kannada	5409	634	12	413	8	789	15	534	10	
10.	Hassan	1,09,038	SC ST-1732=2%								
11.	Mandya	1,18,328	14427	12	6130	5	29110	25	56270	48	
12.	Mysuru	6967	676	10	597	9	489	7	2285	33	
13.	Udupi	7304	461	6	738	10	3548	49	2363	32	
14.	Bagalkot	8667	1052	12	642	8	1815	21	2679	31	
15.	Belagavi	12647	648	5	429	3	1355	11	1146	9	
16.	Dharwad	5728	507	9	283	5	1016	18	1100	19	
17.	Gadag	3301	219	7	142	4	530	16	1805	55	
18.	Haveri	6948	1394	20	1097	16	355	5	2390	34	
19.	Uttara Kannada	9382	418	5	367	4	4867	52	3469	37	
20.	Ballari	2486	149	6	286	12	29	1	292	12	
21.	Bidar	5380	777	14	643	12	541	10	972	18	
22.	Kalaburagi	3407	418	12	163	5	334	10	243	7	

Sl. No	District	Total farmers benefitted	SC		ST		OBC		Women	
			No	%	No	%	No	%	No	%
23.	Koppal	5030	813	16	482	10	11	571	1494	30
24.	Raichuru	326	50	15	40	12	19	61	110	34
25.	Yadgir	1702	339	20	234	14	20	334	291	17
	GT	18331	2546	14	1848	10	10	1810	3402	19

Non-participation of SC/ST and women beneficiaries in percentages districts/taluku.

The participation of SC/ST farmers is more than prescribed in majority of the districts and taluku. However, in eight districts the non-participation is between 06 and 50 percent and in two districts the non-participation is between 55 and 75 percent.

The participation of women in ATMA activities is adequate in thirteen districts. In other districts the non-participation of women ranges from 75 percent to 93 percent. The lowest participation of women is in the districts of Kalaburagi and Belagavi.

Reasons for non-participation of SC, ST and women farmers

In the secondary information furnished by the Project Directors, majority have furnished the reasons as under.

1. Pre occupation with their agriculture and allied activities
2. Personal Commitments
3. Gender issues & 4. Travelling arrangements issues.

6.3.6 Physical and financial achievements against the targets

The Physical and financial achievements made against the targets is presented below.

The physical achievement at state level is 86.00 percent. On an average 24 activities have been implemented against a total of 28 activities.

At State level the overall financial achievement is 85.40 percent. Against the target of Rs. 4482.60 lakhs approved annual action plan, an amount of Rs. 3827.23 Lakhs have been spent during 2019-20.

The physical achievement of activities district wise is presented in below.

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Sl. No.	Districts	B1	B2			Total B2	B3			B4			Total B4	B5			Total B5	B6	B7	A7	B8	B9		Total B9	B10			B11			Total B11	B12	B13
			a (IS)	b (WS)	c (WD)		a (IS)	b (WS)	c (WD)	a (cb)	b (sm)	c (fsg)		a	b	a						b	c										
1	Bagalkote	0	10	243	1073	1326	42	10	750	600	1360	35	28	10	73	30	10	1	1	1	1	1	6	7	2	2	2	2	2	14			
2	Bangalore	0	53	490	1357	1900	40	50	600	823	1473	35	17	10	62	35	10	2	1	2	3	2	2	3	2	2	2	18	20	7			
3	Belgaum	0	135	519	1616	2270	70	352	1904	1028	3284	70	50	20	140	50	10	1	3	1	4	2	1	4	2	2	1	26	29	20			
4	Bellary	0	400	917	1317	27	465	868	1333	41	2	2	2	45	36	9	1	11	5	16	2	2	1	13	16	10							
5	Bidar	0	75	250	685	1010	29	150	650	1020	1820	35	22	8	65	5	5	1	1	4	5	2	2	5	2	2	2	2	2	10			
6	C.R. Nagar	0	54	197	1297	1548	40	57	801	713	1571	16	11	2	29	1	1	1	4	4	3	3	7	10	8								
7	Cbpura	0	0	1150	1150	42	590	1055	1645	42	30	12	84	32	11	1	1	3	4	2	10	24	36	12	1								
8	Ck Magalur	0	250	1270	1520	78	827	853	1680	25	17	2	44	33	33	33	33	1	6	7	0	13	13	16									
9	Chitradurga	0	365	2003	2368	65	940	730	1670	56	17	3	76	33	33	33	1	4	1	5	1	0	1	18									
10	Dak. Kan	0	56	175	702	933	25	60	641	421	1122	13	18	4	35	25	10	1	2	2	4	2	20	22	9								
11	Davanagere	0	160	556	1373	1997	47	104	855	752	1711	41	27	14	82	35	10	1	2	3	2	5	8	15	11								
12	Dharwad	0	50	366	1630	2046	27	50	321	592	963	34	25	0	59	25	25	1	1	1	2	1	1	2	2	2	2	5	8	15	11		
13	Gadag	0	75	250	800	1125	35	75	660	505	1240	35	24	10	69	25	5	1	1	5	6	2	23	25	9	1							
14	Hassan	0	593	2009	1972	125	2068	762	2830	50	29	11	90	22	0	3	1	6	7	2	2	2	19	23	16	5							
15	Haveri	0	68	556	1373	1997	47	104	855	752	1711	41	27	14	82	35	10	1	2	3	2	10	26	38	13	1							
16	Kalaburagi	0	105	330	1050	1285	49	105	742	700	1547	46	35	0	81	32	7	2	1	1	2	2	12	0	14	21							
17	Kodagu	0	50	240	290	14	30	591	700	1321	10	9	2	21	9	0	1	0	1	1	1	1	0	1	5	0							
18	Kolar	0	0	219	1625	1844	35	1411	190	1601	35	24	10	69	25	10	1	1	2	3	2	26	28	9									
19	Koppal	0	46	530	576	23	840	124	964	7	8	22	19	19	19	1	1	1	2	2	2	19	21	8									
20	Mandya	0	114	350	1050	1514	49	105	1340	700	2145	42	30	13	85	35	10	4	3	5	8	2	23	25	14	1							
21	Mysore	0	402	1647	2049	50	18	746	1628	2392	46	33	9	88	33	10	1	1	3	4	2	1	12	15	14								
22	Raichur	0	90	200	895	1185	26	300	1060	1360	12	2	5	19	1	1	1	0	1	1	1	1	0	1	9								
23	Ramnagara	0	32	220	483	735	20	30	390	439	859	28	19	8	55	5	12	2	3	6	9	4	2	15	17	6							
24	Shivamogga	0	28	402	2005	2435	77	28	1140	320	1488	39	20	6	65	21	3	1	1	2	3	0	0	0	13								
25	Tumkur	0	12	392	1679	2083	46	30	826	385	1241	50	8	8	66	1	1	1	3	4	0	0	0	0	18	1							
26	Udupi	0	45	150	1500	1695	30	45	865	300	1210	21	21	6	48	15	10	1	1	1	2	1	0	13	14	6							
27	U. Kannada	0	99	605	1763	2467	77	163	1289	1427	2879	73	51	21	145	53	4	1	1	11	12	2	1	22	25	21	1						
28	Vijayapura	0	75	250	750	1075	35	23	375	468	866	35	25	10	70	19	10	1	0	1	1	2	1	26	29	10	1						
29	Yadagiri	0	150	450	600	17	558	300	858	19	11	5	35	15	10	1	1	1	3	4	2	2	26	28	6								
Total		0	1336	8378	35177	44261	1275	1547	24099	20234	45880	1024	637	219	1880	1	691	160	35	54	86	140	4	48	44	389	481	342	14				

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Sl. No.	Districts	B14					Total B14	B15	D1	E2	F						Total F	G					Total G	Grand Total						
		a (Dist OE)	b (Vehicle)	c (Blk OE)	d (DF AC)	e (BF AC)					1 (DB)	2 (Pico)	3 (Low cost)	4 (Hhd)	5 (GPRS)	6 (Kj)		1 (CP)	2 (BTM+OE)	3 (ATM+OE)	4 (DPD)	5 (Oh)								
1	Bagalkote	1	1	6	2	7	17	15																1	6	12	1			2897
2	Bangalore	4	2	3	2	35	46	16	1	9													3	6	13	1			3617	
3	Belgaum	1	1	10	4	60	76	20	1														17	10	24	2			5992	
4	Bellary	0	1	2	2	18	23	21	8														2	8	18	0			2864	
5	Bidar	1	0	4	1	20	26	10	1	5													2	5	9	0			2991	
6	C.R. Nagar	1	0	3	2	6	12	8	1	3													4	4	11	0			3239	
7	Cbpura	1	1	4	3	21	30	12															3	6	20	1			3063	
8	Ck Magalur	1	2	4	0	20	27	11															4	7	18	0			3434	
9	Chitradurga	1	1	1	1	0	6	9	20	11													1	6	16	0			4279	
10	Dak. Kan	1	0	3	2	11	17	7	5														2	5	10	1			2220	
11	Davanagere	1	1	1	2	17	22	9	12														32	5	14	0			3632	
12	Dharwad	1	1	1	1	9	13	7	5	0													0	5	9	0			3170	
13	Gadag	1	1	5	4	23	34	10	1	4													1	5	6	1			2597	
14	Hassan	1	1	1	4	25	32	23	20														0	8	29	1			5181	
15	Haveri	1	1	1	4	31	38	14	1	7													1	7	12	1			4011	
16	Kalaburagi	1	1	1	1	14	18	28	1														14	7	24	2			3101	
17	Kodagu	1	1	2	0	3	7	6	2														16	3	12	0			1694	
18	Kolar	1	1	2	4	25	33	10	5														3	5	20	1			3676	
19	Koppal	1	1	3	1	2	8	7	4														0	4	15	1			1658	
20	Mandya	1	0	9	2	21	33	14	1	11													7	7	23	1			3956	
21	Mysore	1	1	1	3	13	19	11	2														7	7	24	1			4695	
22	Raichur	0	0	0	2	0	2	5															0	5	30	0			2608	
23	Rannagara	1	1	4	3	10	19	8	5														1	4	13	1			1764	
24	Shivamogga	1	1	1	2	15	20	12	0	18													8	7	31	0			4164	
25	Tumkur	1	1	1	1	0	16	19	24	22													5	10	39	0			3532	
26	Udupi	1	1	1	1	0	10	13	9	1													1	3	4	0			3058	
27	U. Kannada	1	1	1	4	32	39	22	5														7	11	18	1			5774	
28	Vijayapura	1	1	0	4	25	31	10	1	5													1	5	13	1			2165	
29	Yadagiri	1	1	3	1	3	9	6	1	3													5	3	13	1			1611	
	Total	30	26	78	60	498	692	375	10	172	36	3	49	15	56	71	230	29	174	500	19	0	0	0	0	0	0	0	96643	

(Source: - Department of Agriculture)

B1- Developing /Revisiting Strategic Research & Extension Plan (SREP)

B2- Training duration of farmers shall be 5 to 7 days, 3 to 5 and 1 to 2 days duration respectively for Inter State, Inter District and Intra District Trainings (including travel)

B3- Organizing demonstrations

B4- Exposure visit of farmers

B5- Mobilization of farmer groups of different types including Farmer Interest Groups, Women Groups, Farmer Organizations, Commodity Organisations and Farmer Cooperatives etc.

B6- Rewards and incentives - farmer groups

B7 - Farmers awards

A7- Farmer award at State level

B8- District level exhibitions, kisan melas, fruits /vegetable show.

B9- (a) Information dissemination through printed leaflets etc. and local advertisements

B10- Development of technology packages in digital form to be shared through IT network

B11- Farmer scientist interactions at District level 25 farmers for 2 days

B12- Organisation of Kisan Goshties to strengthen Research - Extension -farmer linkages (1 peer block in each of the 2 seasons)

B13- Assessment, Refinement, Validation & adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres

B14- Recurring

B15- Farm School

D- Innovative Activities - District Level

E- Other Innovative Activities

The physical progress achieved in terms of the number of activities implemented range from a minimum of 18 in Dharwad district to a maximum of 29 in Davangere district. In terms of percentage of achievement, it is 64 percent and 103 percent in Dharwad and Davangere districts respectively.

The ATMA scheme involved farmers from agriculture, and related field in the activities implemented during the year. For effective implementation of ATMA scheme, provision has also been made for recruitment of ATMA functionaries at State, District and Taluk levels. Their number is 768 in the state.

The annual action plan of 2019-20 has estimated that a total of 84,587 mandays would be generated out of which 768 are ATMA functionaries and 84,819 mandays of farmers would participate in the implementation of ATMA activities.

The physical progress achieved against the targets is 96,643 mandays. Out of which 725 are ATMA functionaries and 95,918 are farmer mandays.

The financial allocation for ATMA field activities and manpower component is as under.

(Rs.in Lakhs)

Revenue Division	Activities		Manpower component	
	Allocation	Achievement	Allocation	Achievement
Bengaluru	441.70	294.64	827.36	756.15
Mysuru	417.14	299.86	714.48	671.63
Belagavi	414.19	375.08	584.84	559.97
Kalaburagi	303.17	737.15	599.71	534.99
Total	1576.20	1706.73	2726.39	2522.74
Percentage	37%	40%	63%	60%

From the above table it can be seen that the allocations to activities is very less than the manpower component and even in expenditure also the manpower component has utilized 60 percent of the total expenditure which exceeds the limits prescribed under the ATMA guidelines.

The district wise allocation of resources to different groups of activities and achievements in major group of activities is shown in Annexure-4

In Bengaluru Revenue Division the average expenditure is 84 percent. The manpower expenditure ranges from 58 percent in Bengaluru urban district to 82 percent in Tumakuru district.

In Mysuru Revenue Division the average expenditure is 85 percent. The manpower expenditure ranges from 48 percent in Udipi district to 75 percent in Chikkamagaluru and Kodagu districts.

In Belagavi Revenue Division also the average expenditure is 92 percent in the districts. Whereas the manpower expenditure is between 54 percent in Gadag district to 69 percent in Dharwad isdtrict.

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

In Kalaburagi Revenue Division the average, expenditure is 82.5 percent whereas the manpower expenditure varies from 65 percent in Ballari district to 83 percent in Raichur district.

The above data indicates that less amount has been spent for ATMA activities than manpower component and this is not in tune with the ATMA guidelines

The district and activity wise targets and achievement during 2019-20 is shown in Annexure-5.

Here also it can be seen that the expenditure under farmers-oriented activities is a mere 20 percent of the total expenditure. This is far less than the prescribed expenditure under this component.

Revenue Division wise financial targets & achievement

Financial targets and achievements in groups of cafeterias of activities

Bengaluru Revenue Division

(Rs.in Lakhs)

Sl. No	Activities	Annual Action Plan		Achievement	
		Targets	% of total	Achievement	% of total
1	FOA	230.75	18.00	187.77	18
2	FID	52.50	4.00	44.09	4
3	ATRV	42.70	3.00	16.28	2
4	Admin Exp	59.60	5.00	23.24	2
5	A) IA	32.25	3.00	12.45	1
	B) ITD	24.25	2.00	10.10	1
6	MPC	827.36	65.00	756.15	72
Total		1269.06	100.00	1050.79	100.00

Mysuru Revenue Division

(Rs.in Lakhs)

Sl. No	Activities	Annual Action Plan		Achievement	
		Targets	% of total	Achievement	% of total
1	FOA	212.81	19	196.26	20
2	FID	60.00	5	35.11	4
3	ATRV	41.20	4	21.23	2
4	Admin Exp	57.60	5	24.75	3
5	A)IA	26.46	2	8.52	1
	B)ITD	23.00	2	11.79	1
6	MPC	714.48	63	671.63	69
Total		1128.67	100.00	971.49	100.00

Kalaburagi Revenue Division**(Rs.in Lakhs)**

Sl. No	Activities	Annual Action Plan		Achievement	
		Targets	% of total	Achievement	% of total
1	FOA	152.80	17	114.07	15
2	FID	37.00	4	33.36	5
3	ATRV	30.60	3	15.07	2
4	Admin Exp	42.80	5	18.29	3
5	A) IA	23.00	3	15.18	2
	B) ITD	17.00	2	7.65	1
6	MPC	599.7	66	534.99	72
Total		902.9	100.00	737.15	100.00

Belagavi Revenue Division**(Rs.in Lakhs)**

Sl. No	Activities	Annual Action Plan		Achievement	
		Targets	% of total	Achievement	% of total
1	FOA	223.54	22	240.70	26
2	FID	49.00	5	37.85	4
3	ATRV	37.5	4	29.41	3
4	Admin Exp	54.6	5	38.03	4
5	A) IA	29.75	3	13.77	2
	B) ITD	22.75	2	15.32	2
6	MPC	584.84	59	559.97	59
Total		1002.00	0	935.05	100.00

Admin Exp- Administration Expenditure

FOA- Farmer Oriented Activities

FID-Farm Information Dissemination

ATRV-Agriculture Technology Refinement and Validation

IA-Innovative Activities

ITD-Innovative Technology Dissemination

MPC-Manpower Component

Physical and financial achievements of ATMA activities in other departments.

The financial allocations and the achievement of different sectors topics is presented in table 19.

Table 19: Activities of allied sector

Sl. No.	District	Horticulture			Sericulture			AH			Fisheries			Forestry			Activities
		AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	
1.	Tumakuru	—	3.11	3.11	—	2.98	2.74	—	2.74	2.74	2.13	2.13	—	0.56	0.56	0.56	Yes, to all ATMA activities including GB meetings except R-E-F & ITD
2.	Chamarajanagara		3.3	0.13		1.14	1.00		0.36	0.10	0	0		0.17	0	0	Yes, to all sectors and all activities
3.	Dakshina Kannada	0	0.41						0.04	—	—	—		—	—	—	—
4.	Mandya	5.77	5.76		2.32	2.32		4.3	4.3		2.46	2.46	0.43	0.43			
5.	Mysuru	6.09	5.45	5.45	4.24	2.42	2.42	3.67	3.67	3.67	2.28	0.41	0.17	0.17			
6.	Udupi	2.06															Funds are not being released to Departments but targets are implemented by ATMA staff.
			0	0	0.65	—	—	1.2	—	—	0.7	—	0.59	—	—	—	

Sl. No.	District	Horticulture			Sericulture			AH		Fisheries		Forestry		Activities
		AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	AAP	Allocation (Rs. In Lakhs)	Spent	
7.	Uttara Kannada	5.46	4.63	4.63	2.27	2.14	2.14	6.44	5.49	5.49	3.21	3.1	3.1	Involved in all activities except ITD activities
8.	Raichuru	31.55			16.05			15.51			46.71		7.98	Funds are not being released to other Departments but targets are implemented by ATMA staff.
9.	Yadgir		2.86	2.86		0.2	0.2		0.08	0.08		0.04	0.04	

6.3.7 Awards success stories & best practices

ATMA scheme has a provision for giving awards to progressive and achiever farmers in agriculture and allied sectors for showcasing their achievements. These awards are given at state, district and taluk level. The modalities for giving of these awards are as under.

Farmer awards, rewards & incentives

State level activities	State level	Per year per farmer	0.50 lakhs	10 farmers per state @ farmers per activities for 5 activities)
District level activities	District level	Per year per farmer	0.25 lakhs	10 farmers per District @ 2 farmers per activity (for 5 activities)
	District level	Per year per group	0.20 lakhs	Best organized group representing different enterprise (5 groups)
Taluk level activities	Taluk level	Per year per farmer	0.10 lakhs	Best farmers representing different enterprises.

Awards given at state level, district level and taluk level

Details of the awards given to progressive and achiever farmers at State, District and Taluk level in the fields of Agriculture, Horticulture, Sericulture, Animal Husbandry, Fisheries and Forestry in each district is presented in table 20.

Table 20: Farmer awards given district wise

Sl. No	District	No. of farmers awards given				Awards given in each sector																						
		State	District	Taluk	Total	Agri			Horti			Seri			AH			Fisheries			Forest							
						State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total			
1.	Chikkaballapur		5	25	30		2	5	7			10	10			3	3			1	4	5						
2.	Chitradurga			28	28				18				4					3				4						
3.	Davangere		9	24	33		4		18		2	4	6			2	2			2	8	10				1	1	
4.	Kolara		10	25	35			9	13																			
5.	Shivamogga			3	21		1	19	20		2	0	2											2	2			
6.	Tumakuru			4	4			4	4																			
7.	Chikkamagaluru			28	28																							
8.	Dakshina Kannada		10	27	37		5	11	17		3	10	13					2	6	8								
9.	Hassan	3		22	25	3		22	25																			
10.	Kodagu			9	9			9																				
11.	Mandya		10	35	45		9	23	32		1	3	4			2	2				2	2						
12.	Mysuru	5	10	34	49	5	3	6	13		2	7	9			2	7	9				7	7		1	1		

Sl. No	District	No. of farmers awards given				Awards given in each sector																			
		State	District	Taluk	Total	Agri			Horti			Seri			AH			Fisheries			Forest				
						State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total	State	District	Taluk	Total
13.	Udupi	10	15	25		4	4	8		3	3	6		3	4	7	0	1	2	3					
14.	Bagalkot		5	30	35		5	30	35																
15.	Belagavi		10	50	60																				
16.	Dharwad			13	13			13	13																
17.	Gadag		5	25	30																				
18.	Haveri		10	36	46		10	36																	
19.	Uttara Kannada		4	53	57		2	26	28		1	15	16		3	3			1	9	10				
20.	Vijayapura																								
21.	Ballari	2	10	35	47	2			2																
22.	Bidar																								
23.	Kalaburagi		7	32	39		5	24	29		2	8	10												
24.	Koppal			19	19																				
25.	Raichuru																								
26.	Yadgir		10	15	25		4	6	10		4	7	11		1	1	2		1	1	2				
		20	141	627	788			284	85		24						50				9				2

Farmer awards have not been distributed in Ramanagara, Chamarajanagar, Bidar, Raichur and Vijayapura districts.

Success stories documented and distributed to farmers

Success stories of farmers, farmers groups, research issues, farmers practices in agriculture and allied sectors, innovative ideas and achievements, profitable practices etc. are documented in print and electronic forms and these success stories are depicted/displayed to the farmers during trainings, exposure visits, Kisan Goshities, FSI etc. to create awareness and motivate the participating farmers to adopt these practices and methods in their farms during subsequent seasons for encouraging better yield and income.

Details of the Success stories documented in each district and allied sectors is presented in table 21.

Table 21: Success stories

Sl. No	District	No. of success stories	Success stories documented on allied sectors topics					Subjects	
			Agriculture	Horticulture	Sericulture	AH	Fisheries		Forest
1.	Chitradurga	6	5			1			
2.	Davangere	4	3			1			CD & Video Played with Pico Projector
3.	Ramanagara	3 video clips	2	1					Video clips distributed to all taluks. Displayed during trainings.
4.	Shivamogga	2		2					Mandala Garden. Published in Krishi (Areca husk composting) (munnade (UAS, DWD) Newspaper, distributed to farmers.
5.	Tumakuru	9	9						
6.	Chamarajanagara	2	2						IFS, IPM
7.	Dakshina Kannada	3	3						<ul style="list-style-type: none"> Mechanized paddy transplantation.

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Sl. No	District	No. of success stories	Success stories documented on allied sectors topics						Subjects
			Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest	
8.	Hassan	3							<ul style="list-style-type: none"> • Bee keeping. • IFS • IFS • Mushroom cultivation, • Cultivation of RNR-15048
9.	Mandya	6							<ul style="list-style-type: none"> • Bandaru sheep breeding, conservation & Protection. • Desi cow farming-value addition. • Scientific rearing of silk worm. • Natural farming with silviculture. • Organic farming
10.	Mysuru	3	2	1					<ul style="list-style-type: none"> • Millets • Success story on sustainable sugarcane initiative • IHM
11.	Udupi	7	7						<ul style="list-style-type: none"> • Value addition • IFS • Dairy farming • Agro processing • Progressive farmers.
12.	Belagavi	29	13	1			15		
13.	Gadag	4	2				2		

Sl. No	District	No. of success stories	Success stories documented on allied sectors topics					Subjects
			Agriculture	Horticulture	Sericulture	AH	Fisheries	
14.	Haveri	5	2	1		2		<ul style="list-style-type: none"> Organic Farming Natural farming in horticulture Modern sheep and rabbit rearing IFS Scientific dairy farming
15.	Uttara Kannada	12	9	1		1	1	<ul style="list-style-type: none"> Scientific and Mechanized Jaggery Preparation Sangadhalli Nemmadiide Success Story of SHG AZOLLA CULTIVATION Integrated farming system Fish Rearing in farm pond Byproduct of maize Gliricidia making garlands and marketing Exotic vegetable cultivation and marketing Income generation in dairy (small unit) Success story of Progressive farmer Shantaram Hegde

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Sl. No	District	No. of success stories	Success stories documented on allied sectors topics						Subjects
			Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest	
16.	Ballari	45	45						<ul style="list-style-type: none"> Success stories of progressive farmers. Some published in daily newspaper
17.	Bidar	1	1						<ul style="list-style-type: none"> Solar energy-based light insect trap
18.	Koppal	6	5		1				<ul style="list-style-type: none"> Integrated Farming System DSR Method of paddy Cultivation Hitech Greenhouse Goat rearing & Dairying Growing of Black colour Bengalgram
19.	Raichuru	1	1						<ul style="list-style-type: none"> IFS
20.	Yadgir	4	1	1	1	1			<ul style="list-style-type: none"> Hitech Horticulture IFS Model Goatry Chowki system in Sericulture
Total		142	120	8	1	24	1	-	

Out of 29 districts 09 districts have not documented any success stories.

The districts are Bengaluru Urban, Chikkaballapura, Kolar, Chikkamagaluru, Kodagu, Bagalkote, Dharwad, Vijayapura and Kalaburagi.

Best practices documented by other Departments

Details of the best practices followed in the districts and best practices documented by other departments is furnished in table below

Table 22: Best practices in ATMA

Sl. No	District	Best practices followed in ATMA	Best practices documented by different sectors								
			Agriculture	Horticulture	Sericulture	AH	Fisheries	Forest	Case studies		
1.	Bengaluru Urban	<ul style="list-style-type: none"> • IFS • New varieties introduction; • Groups-Success stories 									
2.	Chitradurga	<ul style="list-style-type: none"> • Dibbling method in Tur cultivation, • On and off method of irrigation in Maize crop. • Various trials in Groundnut crop, • Mechanized seed cum fertilizer drill sowing, • Use of Raingun irrigation method in critical stages of crop, • Use of Pheromone traps, • Trap crops 		Use of solar light traps, phenomenon traps, micro irrigation. Horticulture crops and etc.							
3.	Kolar	<ul style="list-style-type: none"> • Fish rearing in farm ponds; • Introduction of KADAKNATH breed chicks • Silage preparation; 									

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		<ul style="list-style-type: none"> • Red gram transplanting and nipping; • Bunch feeding tech in Banana; • IFS 									
4.	Ramanagara	<ul style="list-style-type: none"> • Integrated Farming system • Organic Farming • Minor millets: Production & Value addition. • Food Security & Value addition. 	Documented by agriculture Department-subjects of other Departments							-	
5.	Shivamogga	<p>Farm waste management, i.e., Areca husk decomposition using compost culture and waste decomposer.</p>	Mandala kitchen garden in 30*30 sq ft area and growing 23 types of different fruits and vegetables using kitchen waste and water							Case studies 1) A to Z Mechanization in Paddy 2) Fish Farming in Farm Ponds	
6.	Chamarajanagara	<ul style="list-style-type: none"> • Integrated Farming system • Organic Farming 	Yes. Documented as farmers success story							No case studies	

		<ul style="list-style-type: none"> Minor millets: Production & Value addition. Food Security & Value addition 								
7.	Dakshina Kannada	<ul style="list-style-type: none"> Mechanized paddy growing system Use of traps to control pest in agriculture and horticulture crops 	<ul style="list-style-type: none"> Use of predators and parasitoid for the management of pest in agriculture and horticulture crops Use of bio-fertilizer under different crops. 							No case studies
8.	Hassan	<ul style="list-style-type: none"> IFS followed by farmers, New varietal introduction, Group success stories etc 								
9.	Mandya	<ul style="list-style-type: none"> IFS followed by farmers, New varietal introduction, Organic farming; Farm school, EV, trainings, innovative activities. 								
10.	Mysuru	<ul style="list-style-type: none"> Integrated Farming system Organic Farming Minor millets: Production & Value addition Food Security & Value addition. 								
11.	Udupi	Plastic mulching sheet, Solar light traps.	yes							
12.	Bagalkot	Perfect documentation with								

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13.	Belagavi	<ul style="list-style-type: none"> NDC bill, Vouchers, photos, Approval letter, signs of concerned officers Uploading in ERMS portal Annually Auditing by Chartered accountant, AG and inter dept audit IFS, Organic farming High tech farming like Greenhouse and Shade net cultivation, Pinching/deshooting in Paddy, groundnut, Bajra, Turmeric, Micro irrigation in Sugarcane, Fish farming in farm ponds, Sandalwood and Cashew crop in dryland areas 																	<ul style="list-style-type: none"> Azolla in Paddy Sandalwood and Cashewnut cultivation in Dryland areas of Ramdurg.
14.	Dharwad	Innovative technologies																	
15.	Gadag	<ul style="list-style-type: none"> Management of “fruit fly” in Guava through traps. Integrated crop Management in Bengal gram. Demonstration of “Solar Light Traps” in Bengal gram. Demonstration of “Spiral Separator” to ATMA groups. 	1	1	1	1	1	3											

16.	Haveri	<ul style="list-style-type: none"> • Solar light traps used 							
17.	Uttara Kannada	<ul style="list-style-type: none"> • Scientific and Mechanized Jaggery Preparation; • Minimum labour with other practices; • Can produce export quality jaggery 				1	1		
18.	Bellary	<ul style="list-style-type: none"> • Awareness created on management of pink bollworm in cotton • Nipping in Redgram and Bengal gram • Management of Fall Armyworm in Maize and Jowar 							
19.	Bidar	<ul style="list-style-type: none"> • Perfect documentation with NDC bill, vouchers, photos, Approval letter, signs of concerned officers • Uploading in ERMS portal • Annually Auditing by Chartered accountant, AG and Inter dept audit 							

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20.	Kalaburagi	<ul style="list-style-type: none"> • Perfect documentation with NDC bill, vouchers, photos, Approval letter, signs of concerned officers • Uploading in ERMS portal • Annually Auditing by Chartered accountant, AG and Inter dept audit 						
21.	Yadgir	<ul style="list-style-type: none"> • Trainings, Exposure visits, Farm school, mobilization of groups, KG, Joint Scientists Visits 	2	3	1	1		06 Case studies documented in digital form

Case studies have been documented in Belagavi and Yadgir districts only.

Best practices which have the potential of scalability

- a. Introduction of improved varieties / breeds in Agriculture, Horticulture, Animal Husbandry, Sericulture and Fisheries suitable for each farming system in the taluks and districts
- b. IFS
- c. IPM and INM
- d. Topics on Post-Harvest Technologies like storage, marketing aspects suitable to each farming system.
- e. More importance for agri based income generating activities like Bee keeping, Mushroom cultivation and Fish rearing in Farm ponds.
- f. Food processing and value addition in all the sectors
- g. Timely dissemination of Technologies suitable to each farming system in taluks and districts.

6.4 Project impact in reforming the extension system

6.4.1 Dissemination of technology

Modes of dissemination of technology

The ATMA cafeteria of activities envisage the following activities to disseminate the farm information to the farmers in the state.

1. District level exhibitions, Kisan melas, Fruits & Vegetables shows.
2. Information dissemination through social media, Printed leaflets etc. and local advertisements
3. Low-cost publication
4. Development of Technology Packages in digital form to be shared through IT Networks.

The cafeteria also includes the innovative activities like setting up of community radio stations and content creation of different duration and dissemination of innovative technology through pico projectors, production of low-cost technology films to be used on pico projectors, hand held devices and GPRs services, Kalajathas etc.

In Bengaluru Revenue Division all the districts have brought out leaflets, pamphlets, handouts, 3-fold folders and posters to disseminate the latest technologies in agriculture & allied sectors and achievement of progressive farmers and farmer's award winners. In Ramanagara district video clippings of value addition in Millets, disease management in Animal Husbandry, disease management in Mango and pest management in coconut have been prepared and the technology has been disseminated to farmers.

In Mysuru Revenue Division technology dissemination has been done through leaflets, brochures, kalajathas, low-cost publication, paper advertisements, and announcements through moving vehicles in villages, bus stands through jingles and advertisements through Akashvani. In Mandya district, leaflets on varied topics in Agriculture, Animal Husbandry, Fisheries and Horticulture have been published and distributed to farmers.

In Kalaburagi Revenue Division technology dissemination has been done through leaflets, folders, banners, posters, low-cost publication and advertisements. In Bidar district technology packages have been prepared regarding row system in sugarcane and upgradation of Devni Cow breeds. District level exhibitions have been organized in all the districts of the divisions.

In Belagavi Revenue division technology dissemination has been done through leaflets card boards, blow ups, banners, pamphlets, display board, low-cost publications and newspapers. In Belagavi district technology dissemination is also done through Facebook and, You Tube. In Gadag district video clips have been prepared on integrated management of fruit flies, natural farming, pesticides of plant origin, importance of millets etc. and disseminated through trainings and exhibitions.

Reached the farmers?

Agriculture and allied sectors technology disseminated through these various modes have reached the farmers in all the districts.

Farmer's preference:

District wise farmer's preference for various means of communication is presented in table-7. It can be seen that farmers of all the districts prefer the traditional means of communication such as leaflets, folders, handouts, posters, newsletters etc. Many farmers prefer to gain knowledge by visiting exhibitions, attending trainings, Krishi melas, Kisan Goshties, audio visual aids and the like.

In addition to these, the farmers of Shivamogga and Belagavi prefer the social and electronic media such as You Tube, WhatsApp.

The farmers Preference for means of technology dissemination varies from district to district.

6.4.2 Commodity based farmers interest groups**ATMA helped in mobilization of farmers groups**

The Commodity Interest Groups (CIGs) and Farmers Interest Groups (FIGs) are envisaged to serve as nodal points for information and technology dissemination among its members and other farmers.

The ATMA functionaries at taluks and hobli level namely the Block Technology Managers and Assistant Technology Managers keep regular contact with the farmers in the villages. During various trainings conducted by Department of Agriculture and ATMA these functionaries pass on the information that ATMA has a provision for mobilization of farmers groups based on the interest of the local farmers. They also focus on identifying the farmer's interest needs and skills, resources available in the villages. They hold preliminary meetings with farmers. Based on the farmer's field of interest, create awareness regarding usefulness of farmers groups, their formation, and importance in achieving sustainable agricultural income. They are also taught about realizing their goals and overcome particular issues. The ATMA staff also motivate & co-ordinate with the farmers groups in their formation. They also assist the farmers groups about conducting groups meetings, saving their money regularly, arrange for trainings by experts and officers of government departments in their field of interest. They also assist them in registering with government departments and record keeping. In some districts, farmers groups formed in different government departments are also considered, based on their eligibility and viability, necessary trainings are given. Some local NGOs who have necessary knowledge and experience in organizing SHGs, farmers groups are also involved in farmer's group formation, trainings and taking the members of farmers groups for exposure visits to Krishi mela etc.

At the end of each financial year the farmers group formed and mobilized are also evaluated based on their performance and if found eligible will be given seed money, as extra financial support as per ATMA norms for taking up sustainable group activities in various sectors for a regular sustainable group income.

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Number of CIGs and FIGs formed

District wise number of Commodity Interest Groups and Farmers Interest Groups formed is presented in table no-23.

533 Farmer Interest Groups and 188 Commodity Interest Groups have been formed during 2019-20.

Farmers groups have not been formed in Mysore district.

Food Security Groups formed (FSGs)

A total of 245 Food Security Groups have been formed during the year. FSGs are not formed in the districts of Mysore, Hassan and Dharwad.

Table 23: Details of district wise number of CIGs, FIGs & FSGs formed

Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors		
		FIG	CIG	FSG	Total			Agri	Horti	Seri	AH	Fish		Forest	
1.	Bengaluru Urban					Farmers are involved in all the training programmes, EVs, FS, KG etc.	47 groups are active at present	Most of the groups formed under agriculture sector							Groups are created under agriculture, Horticulture crops.
2.	Chikkaballapur	15	15	12	42	Farm schools, organizing demonstration and helping as para technician, EVs & Trainings.	All 7 are functioning	35	3	2					
3.	Chitradurga	18	9	7	34	Capacity building, skill development, trainings, EV, Demos (to old & new groups)	Out of 34 groups 27 groups are functioning	31	3						

Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors			
		FIG	CIG	FSG	Total			Agri	Horti	Seri	AH	Fish		Forest		
4.	Davangere	20	1	9	30	EVs training, field days, demos	All groups' members progressive farmers ATMA award winners are actively participating in ATMA activities	16	5	2	1					
5.	Kolara		24	10	34	farmers are involved in all the training programmes, demos, EVs, FS, KGs FSI etc.	There are 24 CIGs & 10 FSGs are active at present	34								Groups are created under agriculture
6.	Ramanagara	20		8	28	RSGs, FIGs, FSGs are provided with trainings on required topics	More than 09 groups are active.	28								ATMA accounts does not exist with other Departments

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Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors		
		FIG	CIG	FSG	Total			Agri	Horti	Seri	AH	Fish		Forest	
7.	Shivamogga	18	8	6	32	groups are involved in so many ATMA activities i.e., training, EV, capacity building, skill development	All the 39 groups are functioning	17	6	1	7	1			Working staff limited in some Departments
8.	Tumakuru	32	13	15	60	Involved in ATMA activities like trainings, EV, KG, FS, Exhibitions, demos etc. and value addition	15 groups are functioning	49	5		2				FIG/CIG groups formed to allied sectors
9.	Chamarajanagara	6	0	3	9	RSGs, FIGs, FSGs are provided training on required topics	18 groups are active	5	2		2				All the sectors are actively involved in implementation of ATMA activities
10.	Chikkamagaluru	20		4	24										
11.	Dakshina Kannada	18		4	22	• Through trainings, BFAC/DFAC	33	10	6		4				Farmers does not show

Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors	
		FIG	CIG	FSG	Total			Agri	Horti	Seri	AH	Fish		Forest
						meetings. • Exposure visits were planned for farmers groups							interest in sericulture programmes. Hence under this sector groups are not formed.	
12.	Hassan	27			27		There are 93 groups active at present	27					Groups are Created under agriculture, horticulture crops.	
13.	Kodagu	9		4	13	One group trained for production of fruit wine for Not furnished the existing groups								
14.	Mandya			12	12	trainings, EVs, BFAC, group meetings, farm school	70 percent	13	13	5	7	4	0	Some sectors facing staff availability. Most of them

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Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors						Reasons for not forming groups by other sectors		
		FIG	CIG	FSC	Total			Agri	Horti	Seri	AH	Fish	Forest			
15.	Mysuru					groups are provided with training on required topics	2019-20 more than 70 groups are active groups									in charge officers. So, they are not taking responsibility .
16.	Udupi	19		4	23	Farmer's participation is very active in all the activities like EV, FS, training & demonstrations.	All 21 groups are functioning	21	2							All the sectors are actively involved in implementation of ATMA activities
17.	Bagalkot	17	8	11	36	Trainings, EVs KGs		36								Formed groups in all sectors

Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors	
		FIG	CIG	FSC	Total			Agri	Horti	Seri	AH	Fish		Forest
18.	Belagavi	34	16	23	73	EVs trainings, Krishi mela, KG exhibitions, BFAC, DFAC, SFAC	73	63	7	1	1	1	1	Forestry not formed groups due to shortage of manpower
19.	Dharwad	34			34	Field days, EVs, Demonstrations whenever trainings or ATMA activities conducted groups will give response.	All	34						Allied sectors Not furnished
20.	Gadag	24		10	34	Trainings, Exposure visits, Demonstrations	28-34	22	6	6				Fisheries has minimum opportunity in the district. Sericulture facing staff shortages. Forest Department involvement

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Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors						Reasons for not forming groups by other sectors		
		FIG	CIG	FSC	Total			Agri	Horti	Seri	AH	Fish	Forest			
21.	Haveri	40		12	52	Farmers groups are involved in ATMA activities with high interest and groups are good in functioning.	52 (40+12) Agri + Allied sectors	52								is generally low despite constant approach.
22.	Uttara Kannada	45	15	22	82	Farm school, KGs, trainings, EV	72	68	5	4	5					Sericulture area is less & sericulture farmers settled in scattered locations. It is very difficult to combine those farmers.

Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors		
		FIG	CIG	FSG	Total			Agri	Horti	Seri	AH	Fish		Forest	
23.	Vijayapura	35	25	10	70										
24.	Ballari	16	23	15	54	Some member farmers are BFAC members and many are actively involved in demos, trainings and EVS	Out of 71 farmers groups 45 are active	11					3		Group formed 25 are (Women groups)
25.	Bidar	18	8	13	39	Trainings, EVs KGs		30	4					09	women and child welfare
26.	Kalaburagi	16	13	7	36	Demos, field visits, market led activities		36							
27.	Koppal	5	8	8	21	Involved in ATMA activities with high interest and groups are good in functioning and involved in training programmes, EV, FS, KG etc.	21	21							Groups are formed under agriculture

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Sl. No	Districts	No. of groups formed				Involvement in ATMA activities	Number of functioning	Groups formed by allied sectors					Reasons for not forming groups by other sectors		
		FIG	CIG	FSC	Total			Agri	Horti	Seri	AH	Fish		Forest	
28.	Raichuru	16	0	12	28	Yes. Farmers groups are created as per norms of ATMA guidelines	Farmer's participation is very active in all the activities like EVs, FS, training and demonstrations	28							
29.	Yadgir	11	2	4	17	Trainings, EVs KGs	-	10	6		1				
Total		533	188	245	966			686	84	11	35		14		

6.4.3 Decentralization, multiagency and flexible decision making and implementation

ATMA scheme focuses on encouraging multi-agency strategies involving public/private extension service providers. ATMA guidelines 2018 has sufficiently provided for decentralization multiagency and flexible decision making and implementation.

The stakeholders in the planning and implementation of ATMA activities is from both public and private agencies. The information is provided as under.

State Level

Public

- Govt of Karnataka
- State level Sanctioning Committee
- Inter Departmental working Group
- Commissioner of Agriculture/Director of Agriculture
- State Nodal Cell
- SAMETI
- SFAC

Private

District level

- ATMA Governing Board
- Joint Director of Agriculture
- Deputy Director of Agriculture
- Deputy Director of Animal Husbandry
- Deputy Director of Sericulture
- Deputy Director /SAD of fisheries
- District Farmers Advisory committee
- KRISHI VIGNANA KENDRA
- Zonal Research Station
- Project Director (ATMA)
- Deputy Project Director (ATMA)
- Lead bank officer of the district
- Representative from district industrial Centre
- Representative from agri marketing department.

1. One farmer representative each from Agriculture. Animal Husbandry, Horticulture, Fisheries/ Sericulture.
2. One representative of women Food Security Group
3. One representative of FIG/CIG
4. One SC/ST farmers representative
5. Representative of NGO working in Agriculture/ allied sector
6. Representative of input supplying association
7. One representative of trained input dealers who is also providing extension services.

Taluk Level

- Assistant Director of Agriculture
- Assistant Director of Horticulture
- Assistant Director of Sericulture
- Assistant Director of Animal Husbandry
- Assistant Director of Fisheries
- President, Taluk Panchayat Samiti.
- All members of Zilla Panchayath of the Concerned block
- 25 Progressive/awardee farmers
- Beneficiary farmers

- Block Technology Team
- Block Farmers Advisory committee
- Block Technology Manager
- Assistant Technology Manager
- Scientist from KVK

District wise decentralization, multiagency and flexible decision making and implementation aspects are provided in below table

Table 24: Agencies involved in the decentralization and flexible decision making and their involvement in the process

Sl. No.	District	Agencies involved in decentralization and flexible decision making
1.	Chikkaballapur	Agencies are not involved in decentralization and flexible decision making
2.	Chitradurga	Govt. Departments, farmer groups, self-help groups, progressive farmers, farm women and input dealers.
3.	Shivamogga	Govt. Departments, farmer groups, self-help groups, progressive farmers, farm women and input dealers.
4.	Hassan	In addition to allied sectors Mahila Mandal, Yuvaka Mandal, input dealers, farmers group etc. were involved in decision making and implementation of activities
5.	Belagavi	BFAC and DFAC are involved in decentralization and flexible decision making
6.	Dharwad	Grama Panchayat, Taluk Panchayat, Zilla Panchayat. NGOs local Sahakara Sanghas.
7.	Haveri	Yes
8.	Uttara Kannada	Souhardha Sahakari Niyamita SIRSI
9.	Ballari	1. KVK Hagari; 2.ARS-Sirguppa; 3. Agriculture Extension Education Unit, Hoovina Hadagali; 4. KVK, Gangavathi

As could be seen from the table the involvement of agencies other than government is very limited and that too involvement of NGOs is seen only in a few districts. These NGOs wherever utilized is only for trainings and exposure visits.

The stakeholders other than the government officials are not involved in the planning and implementation process of ATMA.

NGOs involved in ATMA

Details of the NGOs involved district wise is given in table below

Table 25: List of activities in which some of the NGOs are involved

No	Districts	Name of the NGOs/Agencies involved	Activities in which involved	(Rs. In lakhs)	
				Resources allotted	Resources spent
1.	Bengaluru Urban	Digvijay Channel	Krishi Mela at Mysuru	0.59	0.59
2.	Chikkaballapur	Vahini Abivrudhi Samasthe Gudibande	Kalajathas Programme	0.20	0.20
3.	Davangere	Navachethana Samruddi Samasthe, Gudibande Not involved	Kalajathas Programme FPO training. Value addition	0.10	0.10
4.	Shivamogga	ICICI foundation	Training & capacity building, Exposure visits		
5.	Mandya	NGOs such as SKDRDP, Organic growers' groups, progressives' farmers were voluntarily involved physically in implementation of many activities of ATMA trainings, Demonstrations, Farm schools and exposure visits etc. but not financially allocated the grants	Mahila mandala & Yuvaka mela		
6.	Mysuru	M/S Sahaja Samrudha	Kisan Goshities	0.19	
		Srikhetra Dharmastala Development Rural Programme (SKDRDP)	Food mela	0.15	
7.	Udupi	SKDRDP	Trainings & EV		

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No	Districts	Name of the NGOs/Agencies involved	Activities in which involved	Resources allotted	Resources spent
8.	Belagavi	ICARKLE-KVK, Matthikoppa, Tq: Bailhongal district Belagavi	1. Designated expert support from KVK. 2. Joint visits 3. FSI, FS, Kisan melas, exhibitions, farmer awards. Trainings, EVs	0.30	0.30
		BIRDS KVK, Tukkanatti, Tq: Gokak, district Belagavi			
9.	Dharwad	RUSET, Dharmastala Samste.	Capacity building	2.00	2.00
		2 BAIF. Surshettykoppa	Capacity building	0.50	0.50
10.	Gadag	None of the NGOs were involved in planning Not involved in process and implementation of ATMA activities			
11.	Haveri	Sujay Urban & Rural development	FIG Training	0.20	0.20
12.	Uttara Kannada	Souhardha Kadamba Marketing Sahakari Niyamita SIRSI	Kokum mela Coconut neera production	0.20	0.20
		Vande Mataram seva sangha, Koppal	EV. Horticulture, fair, Bengaluru	0.20	0.20
13.	Koppal				

6.4.4 Farmer to farmer extension

Farm schools provide the vital link between the progressive farmer/achiever farmer and other farmers. The farm schools are set up in the field of outstanding or achiever farmers. Farm schools would provide season long technical training to participating farmers by having an interactive session during each of the 6 critical stages in a cropping season.

Details of farm school formed, number of donor farmers, and number of farmer trainees who attended these farm schools and the broad subjects covered during the training are furnished in below table.

All the districts have organized the farm schools

Table 26: Number of farm school organized, participants and subjects covered.

Sl. No	District	Number of FS opened	Participants		Subjects
			Donors	Trainees Farmers	
1.	Bengaluru Urban	12	12	300	
2.	Chikkaballapur	12	12	326	<ul style="list-style-type: none"> ✓ Introduction of White Ragi Variety. ✓ Red gram Transplanting Method. ✓ Integrated Farming System. ✓ IPM on Tomato. ✓ INM in Brinjal. ✓ Introduction of Arka micro consortium in Tomato. ✓ Introduction of Arka microbial consortium in Brinjal. ✓ Ragi line Transplanting, & INM. ✓ Red gram-(BRG-5)*3 Spacing, Nipping, INM & IPM Technology. ✓ Line sowing in Ragi. ✓ Army worm control in Maize
3.	Chitradurga	17	17	408	<ul style="list-style-type: none"> ✓ ICM, INM, IPM in Groundnut, ✓ Dibbling in Tur
4.	Davangere	9	9	9	<ul style="list-style-type: none"> ✓ DSR Paddy, ✓ Milk production, ✓ Ragi transplanting, ✓ Millets
5.	Kolar	10	10	245	<ul style="list-style-type: none"> ✓ Improved practices in agriculture. Horticulture crops.

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Sl. No	District	Number of FS opened	Participants		Subjects
			Donors	Trainees Farmers	
6.	Ramanagara	8	8	224	<p><u>Agriculture:</u> Ø Integrated Farming System Ø Programme on DSR Method.</p> <p><u>Horticulture:</u> Ø Integrated Farming System in Horticulture</p> <p><u>Animal Husbandry:</u> Ø Dairy Farming Ø Desi Cow Rearing</p> <p><u>Sericulture:</u> New Technology in Sericulture</p>
7.	Shivamogga	12	12	300	<ul style="list-style-type: none"> ✓ Yield Maximization Technology in Ragi ✓ Scientific Method of Dairy Farming ✓ DSR In Paddy ✓ A to Z mechanization In Paddy ✓ Fall Army Worm Management Technology ✓ Introduction Of New Variety in Ragi-MR6 ✓ Hybrid Vegetable Production Technologies
8.	Tumakuru	25	11	720	<ul style="list-style-type: none"> ✓ Cultivation and Production of Hebbal Avare.; ✓ INM and IPM in pomegranate crop. ✓ Importance of chia crop.
9.	Chamarajanagara	8	8	192	<p>Agriculture</p> <ul style="list-style-type: none"> ✓ Integrated Farming System ✓ Program on DSR Method. ✓ Sustainable farming in Sugarcane <p>Horticulture</p> <ul style="list-style-type: none"> ✓ Integrated Farming System in Horticulture <p>Animal Husbandry</p> <ul style="list-style-type: none"> ✓ Dairy Farming

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Sl. No	District	Number of FS opened	Participants		Subjects
			Donors	Trainees Farmers	
					<ul style="list-style-type: none"> ✓ Desi Cow Rearing Fisheries ✓ Inland fisheries Sericulture ✓ New Technology in Sericulture
10.	Chikkamagaluru	11			
11.	Dakshina Kannada	6	6	165	<ul style="list-style-type: none"> ✓ Arecanut plant breeding methods ✓ Beekeeping ✓ Jasmine cultivation ✓ Hydroponic system ✓ Dairy Farming
12.	Hassan	23	23	962	IPM in maize, varieties in Ragi etc
13.	Kodagu	6	6		<ul style="list-style-type: none"> ✓ Farm mechanization in paddy. ✓ Poultry farming; ✓ Drum seeder in paddy
14.	Mandya	14	14	276	<ul style="list-style-type: none"> ✓ Scientific practices in Fish culture. ✓ DSR Method in Paddy; ✓ Disease control and management in cattle; ✓ Scientific rearing of cows and feed management; ✓ Mechanized paddy transplanting using drum seeder; ✓ Control measures of Bovine mastitis
15.	Mysuru	11	11	275	<p>Agriculture</p> <ul style="list-style-type: none"> ✓ Integrated Farming System ✓ Programme on DSR Method. ✓ Sustainable farming in Sugarcane <p>Horticulture</p> <ul style="list-style-type: none"> ✓ Integrated Farming System in Horticulture <p>Animal Husbandry</p> <ul style="list-style-type: none"> ✓ Dairy Farming ✓ Desi Cow Rearing

RESULTS AND DISCUSSIONS

Sl. No	District	Number of FS opened	Participants		Subjects
			Donors	Trainees Farmers	
					Fisheries ✓ Inland fisheries Sericulture ✓ New Technology in Sericulture
16.	Udupi	9	9	159	IFS
17.	Bagalkot	12	12	6 (Trainer)	Integrated crop management in Wheat, Groundnut and Bengal gram
18.	Belagavi	20	20	500	Agriculture, Horticulture, AH, Fisheries, Sericulture, (IFS)
19.	Dharwad	11	10	270	✓ Fall army worm in Maize and IFS in Bengal gram; ✓ Management in Chilli, Bengal gram and Groundnut. ✓ IFS in Bengalgram ✓ Pink bollworm in cotton, ✓ IFS in Maize,
20.	Gadag	10	10		Integrated crop management in Green gram, Groundnut and Bengal gram
21.	Haveri	15	15	375	Seed to seed Information to farmers
22.	Uttara Kannada	22	25	546	✓ IPM, INM IFS in paddy; Arecanut, Banana. ✓ Apiculture, ✓ Dairying, ✓ Inter cropping of Vegetables in Banana. ✓ Use of machinery in Paddy, ✓ Improved Cultivation practices in Groundnut
23.	Ballari	9	9		✓ IFS on cotton, Bengal gram, Ground nut production. ✓ DSR Paddy
24.	Bidar	9	10	230	✓ Soil health ✓ Livestock management
25.	Kalaburagi	28	28	56	Transplanting of Red gram, IPM, INM
26.	Koppal	11	11	264	✓ INM & IPM in Red gram, ✓ Improved farming practices in

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Sl. No	District	Number of FS opened	Participants		Subjects
			Donors	Trainees Farmers	
					Ground nut, ✓ Mechanical transplanting of paddy. ✓ Improved farming practices in Bengal gram
27.	Raichuru	10	10	125	IFS
28.	Yadgir	6	6	120	INM, IPM in Groundnut and Red gram
Total		356	334	7053	

ICM-Integrated Crop Management
IPM-Integrated Pest management

INM- Integrated Nutrient Management
IFS-Integrated Farming System

Research – Extension Farmer Linkages

Research-Extension-Farmer Linkages based activities provide a platform for addressing farmer's concerns on new technologies developed by research institutions and help in bringing forth various technological options for the coming season which suited to the local situations.

R-E-F linkages-based activities include organization of farmer scientist interactions at local level, joint visits by scientists and extension personnel, organization of field days, and Kisan Goshties and support to local researchable issues which emanate from SREP.

Details of the activities implemented under this category district wise is furnished in below table 27.

Table 27: Details of the farmer- scientist interactions conducted in each district and joint visits made by officers & scientists

Sl. No	District	Farmer Scientists Interaction		Joint visits	
		No	Subject	No	Subject/Purpose
1.	Bengaluru Urban	2	Soil health, ZBNF & IPM, IDM & IFS	10	✓ Control method for army worm in maize.
2.	Chitradurga	1	Cotton pink boll worm problem & control	10	✓ Problems of pests, diseases, nutrients etc. in farmers' field.
3.	Davangere	2	✓ Water management; ✓ World food day		
4.	Kolar	2	✓ Dry land Horticulture and micro irrigation. ✓ New variety introduction and IPM in all crops	15	
5.	Ramanagara	2	✓ Agriculture, Horticulture & Allied sector technologies. ✓ IFS-Interactions	26	✓ Problematic fields of Ragi, Paddy. ✓ Problematic fields of Guava & Tur; ✓ Problematic fields of Sericulture; ✓ Problematic fields of cowpea
6.	Shivamogga	1	✓ Nutritive food for good health	4	✓ To study the fall army worm nature of damage in Maize and integrated management Technologies for sustainable yield in Maize crop.
7.	Tumakuru	1	✓ Horticulture crop		
8.	Chamarajanagar ^a	1	✓ Environment & forest protection ✓ Soil & water management ✓ Minor millets	2	
9.	Chikkamagaluru		✓ NF	13	

Sl. No	District	Farmer Scientists Interaction		Joint visits	
		No	Subject	No	Subject/Purpose
10.	Dakshina Kannada	2	<ul style="list-style-type: none"> ✓ Plant protection in Horticulture crops. ✓ IPM, IFS, INM in horticulture. ✓ Farmer-Scientist interaction at RSK Moodabidre 	20	<ul style="list-style-type: none"> ✓ Field visits for pest and disease management, nutrients management and identification of pest and disease in fields.
11.	Hassan	2	<ul style="list-style-type: none"> ✓ Agriculture & allied sectors-IFS. ✓ IFS based agriculture-series of talks in Akashavani and workshop 	18	<ul style="list-style-type: none"> ✓ Field visits to different crop fields including coffee. Most of the visits in IPM & Pests.
12.	Kodagu	1	<ul style="list-style-type: none"> ✓ Awareness about fertilizers 		
13.	Mandya	1	<ul style="list-style-type: none"> ✓ Discussions and interactions with farmers about newly introduced CHIA crop at Keelara village of Mandya Tq. 	23	<ul style="list-style-type: none"> ✓ Joint visits on varying topics of Agriculture, Horticulture and Animal Husbandry.
14.	Mysuru	2	<ul style="list-style-type: none"> ✓ Improved technologies in Horticulture & Agriculture ✓ IFS & Crops 	26	
15.	Udupi	2	<ul style="list-style-type: none"> ✓ Insect & pest management in Horticulture crops. ✓ Weed management in watermelon. ✓ New technologies advantage and disadvantages on usage of pesticides and weedicides in Agriculture, Horticulture crops. New technologies and management of nutrients in dairy farming. Waste 	13	<ul style="list-style-type: none"> ✓ Side effects of wrong usage of weedicides in paddy fields. ✓ Kole roga (fruit-rot disease) in Areca nut, ✓ Visits to insect infestation in paddy fields, ✓ Visits to coconut and Arecanut problematic field and also vegetable crops. ✓ Visit to nut dirt, cigar spillage and stem rotting problems in Arecanut crops fields, ✓ Root grub affected areca nut field,

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Sl. No	District	Farmer Scientists Interaction		Joint visits	
		No	Subject	No	Subject/Purpose
			management.		<ul style="list-style-type: none"> ✓ Organic vegetable farm field, ✓ IFS field ✓ Pepper wilt disease, ✓ Areca nut & coconut pest affected fields
16.	Bagalkot	1	<ul style="list-style-type: none"> ✓ Intercropping cultivation in sugarcane 	10	<ul style="list-style-type: none"> ✓ Nipping in Bengal gram ✓ Control of Fall army worm in Maize ✓ Sub mastitis in Dairy animals ✓ Fish rearing in Farm Pond ✓ Pest control in Mulberry Crop
17.	Belagavi	2	<ul style="list-style-type: none"> ✓ IFS ✓ Cattle Management ✓ Mulberry Production Technologies ✓ Fish Production in Farm ponds ✓ Vegetable Production Technologies. Involving all Departments & scientists of KVKs. 	26	<ul style="list-style-type: none"> ✓ Field visits to problems of Pest, Disease, Soil by the scientists of 2 KVKs.
18.	Dharwad	2	<ul style="list-style-type: none"> ✓ Water conservation. ✓ Pink Bollworm management 	4	<ul style="list-style-type: none"> ✓ Fall army worm infected field of maize. ✓ Bengal gram will affected field. ✓ Problematic fields of Sugarcane, Green gram.
19.	Gadag	2	<ul style="list-style-type: none"> ✓ Concepts and importance of FPO, ✓ Integrated crop management of Rabi Jowar, Bengal gram and irrigated Maize. ✓ Field level problems faced by farmers and their solutions. ✓ Low-cost technologies that are 	23	<ul style="list-style-type: none"> ✓ Visited the problematic fields of Groundnut, Onion, Cotton, Maize, Green gram, Bengal gram and Jowar of the different villages throughout the district in Kharif and Rabi seasons. Solutions were suggested to farmers at the field level. Scientists also accompanied the extension workers for evaluation of farmer awards.

Sl. No	District	Farmer Scientists Interaction		Joint visits	
		No	Subject	No	Subject/Purpose
20.	Haveri	-	- suitable for the district.	26	<ul style="list-style-type: none"> ✓ From 07-12-2019 to 21-12-2019 farmers award selection ✓ Millets and their importance
21.	Uttara Kannada	2	<ul style="list-style-type: none"> ✓ Improved farming practices and alternate crops during indefinite weather. ✓ IPM in paddy & Ground nut. ✓ Horticulture in coastal areas & IFS. 	21	<ul style="list-style-type: none"> ✓ Horticulture after floods and disease control measures. ✓ Fodder crop management in cattle rearing.
22.	Vijayapura	2	<ul style="list-style-type: none"> ✓ Water management & alternative cropping systems. ✓ Siridhanya 	26	
23.	Ballari	2	<ul style="list-style-type: none"> ✓ Recent technologies in dry land agriculture and major pest and diseases. ✓ Major pests and diseases of RABI crops. 	21	
24.	Bidar	1	<ul style="list-style-type: none"> ✓ Cropping pattern in agriculture and soil health 	12	
25.	Koppal	2	<ul style="list-style-type: none"> ✓ Role of women farmers in Agriculture and food security. ✓ Foot & mouth disease of livestock. ✓ DSR method of sowing in paddy. 	25	
26.	Raichuru	1	Farmer's day	15	

Sl. No	District	Farmer Scientists Interaction		Joint visits	
		No	Subject	No	Subject/Purpose
27.	Yadgir	2	<ul style="list-style-type: none"> ✓ Research technologies required for Red gram and cotton crops. ✓ Animal Breeding 	12	<ul style="list-style-type: none"> ✓ Management of Chilli pests. ✓ Tikka Disease in Ground Nut. ✓ Nursery and Fertilizer management in Mulberry. ✓ Nutrient deficiency pest and diseases in pomegranate. ✓ Flower drop and pests in pigeon pea. ✓ Fodder management- Soil and Nutrition. ✓ IPM INM and Water Management. ✓ Pests in Jowar. ✓ Pest and Diseases of Guava, Sapota, Mango and Marigold. ✓ Silage making.

ZBNF-Zero Budget Natural Farming

IDM-Integrated Disease Management

Farmer-Scientist interactions at 2 per districts have to be organized in all districts. From the above table it can be seen that the number organized is 1 to 2 in the districts. The districts of Chikkaballapura, Chikkamagaluru, Haveri and Kalaburagi have not organized the interactions during the year.

These interactions are held mainly with the farmers of the districts. i.e., farmers of all taluks. The local issues pertaining to Agriculture, Horticulture, Sericulture, AH, Fisheries and Forestry are highlighted by the concerned officers of local departments and also scientists of local KVKs.

Joint Visits made by the scientist and extension Personnel

Whenever there are problems and issues in the farmers' fields, Joint visits by the officers of concerned local departments and local KVK is made and solutions have been given to the problems.

Details of the joint visits of scientists and extension personnel to farmers' fields to create a common understanding of field level technological issues and providing an integrated solution to the problem faced by the farmers and on the spot, face to face interaction with scientists is presented in table 27.

Interaction between stakeholders specifically, farmers with scientists and capacity of absorption of techniques.

Specific indicator for assessing the capacity of absorption of techniques during the interactions need to be developed.

The activity of interaction between the farmers with scientists need to be enhanced and these interactions should be based on the prevailing farming systems in each taluk and districts and problems encountered in each taluk in all the sectors.

The activity to be planned should meet the needs of micro level farming activity and needs of the farmers. The interaction pertaining to the farm mechanization has lot of demand by the farmers of irrigated and paddy growing areas. The innovative ideas of using the pole for spray and harvest of arecanut which are recently advocated in the arecanut growing area should be key activity, and paddy transplanting, harvesting mechanization should be the key in irrigated paddy growing areas. The training and interactions of farmers with scientists should look into such micro-level demand and plan accordingly.

The Survey and interaction with beneficiary farmers and also the secondary data indicate that the productivity and yields have increased during 2019-20 and the fact that increase in yield levels is a good indicator that the technologies imparted are well absorbed by the farmers.

6.4.5 Capacity building of human resources

The ATMA scheme provides for establishing SAMETIS (State Agriculture Management and Extension Training Institute) at State level to ensure regular training and skill development-upgradation of state and district/taluk level extension functionaries and for reaching out to the grassroot level extension functionaries and farmers through field visits. For the purpose, the Govt of Karnataka has established two SAMETI's in the State. One is located at the University of Agricultural Science, Bengaluru and the other at the UAS, Dharwad. These SAMETIs are headed by respective Director of Extension of the two universities. These two SAMETIs have the responsibility of ensuring regular training/capacity building, guidance to extension functionaries of Agriculture, Horticulture, Animal Husbandry, Sericulture, Forestry, Agricultural marketing Department of State and District/ Taluk level, NGOs, private agencies and others who are involved in Agriculture and allied development activities in addition to ATMA functionaries of taluk, district and state level.

ATMA Personnel and officials of allied sectors trained

Sector	Bengaluru	Dharwad
ATMA	548	1281
Horticulture	44	74
Sericulture	22	57
Animal Husbandry	20	31
Fisheries	0	9
Others	32	161
Total	666	NGO-24, Forestry-10, APMC-2, DFAC-4, Scientist-3, FPO-5, CDPO-1,

The topics covered under trainings**SAMETI, Bengaluru**

- Trainings need assessment and ATMA action plan preparation
- Refresher training and orientation for ATMA stakeholders and DAESI trained dealers
- Training to Farm Tele Advisors of Kisan Call Centre on Recent Advances in Agriculture Technologies
- Orientation Programme on Formation of Farmers Producer Organizations for ATMA stakeholders
- Precision Farming and Micro Irrigation in Horticulture Crops
- Induction Training Programme for newly recruited ATMs and BTMs
- ERMS Portal to Computer Programmers working under ATMA

SAMETI, Dharwad

- Formation of farmer Producer Organizations
- Refresher training to all ATMA implementing officers of Agriculture and allied Departments along with BTMs & ATMs
- Climate based contingent crop planning
- Technologies for doubling of farmers income in Agriculture and allied sectors
- Fodder production and conservation of green fodder
- Vegetable seed production technologies
- Agriculture Apps and e- marketing
- Empowerment of Farm women through group activities
- Recent trends in Medicinal and Aromatic plant cultivation
- Innovative approach for sustainable livestock production

Subjects covered to suit the ATMA requirement

SAMETI, Bengaluru	SAMETI, Dharwad
<ul style="list-style-type: none"> • Training calendar prepared for 2019-20 lists 	<ul style="list-style-type: none"> • Curriculum of different sectors finalized in July 2019
<ul style="list-style-type: none"> • 34 trainings to be conducted in various 19 topics to different ATMA stakeholders 	
<ul style="list-style-type: none"> • Trainings conducted have covered 07 topics 	<ul style="list-style-type: none"> • The listed topics have been covered in the trainings conducted except one topic on Mechanization in Agriculture and allied fields.
<ul style="list-style-type: none"> • Trainings in Sheep rearing, Piggery farming modern poultry Husbandry, Fodder production and Management, Recent advances in dairying have not been conducted 	
<ul style="list-style-type: none"> • Recent advances in Sericulture are also not conducted 	
<ul style="list-style-type: none"> • Other trainings not conducted include Food processing and value addition in Agriculture and allied fields, and recent advances in farm mechanization. 	

6.5. Impact

6.5.1 Adoption of new technologies

Production technologies generally followed

Bengaluru RD: Broad casting, drill sowing and guni paddati in Ragi, high seed rate, transplanting, DSR Method and machine transplanting in paddy, machine harvesting in Paddy, threshing by machinery & manual.

Mysuru RD: Local methods and transplanting in Paddy, mechanization in Paddy, Sugarcane intercropping with vegetables and pulses, Ragi intercropping with pulses.

Belagavi RD: Introduction of new varieties in Soyabean, Paddy, Cashew, Forest Species, Goat and fish., Line planting and machine planting in Paddy, application of Biofertilizers, Mechanical harvesting in Paddy.

Kalaburagi RD: Redgram-Dibbling, nipping, transplanting, Bengal gram - Dibbling, Nipping, Soyabean - Dibbling, Chip method, 2 eye bud method, Cotton-Dibbling method, Seed treatment, Intercropping, INM, IPM.

Beneficiary data**Table 28: Production technologies used before 2019-20.**

Sl. No.	Districts	Traditional Methods	Improved methods	Both	*DNA	Grand Total
1.	Bagalkote	27	13		6	46
2.	Bangalore Urban	29	34			63
3.	Belagavi	28	16	8	5	57
4.	Bellary	30	2		2	34
5.	Bidar	28	17			45
6.	Chamarajanagar	6	3		1	10
7.	Chikkaballapur	10	29		12	51
8.	Chikkamagaluru	35	13	6		54
9.	Chitradurga	37	9	6	3	55
10.	Dakshina Kannada	10	13	1	36	60
11.	Davangere	8	27		15	50
12.	Dharwad	11	8	19	8	46
13.	Gadag	33			2	35
14.	Hassan	10	2			12
15.	Haveri	38			5	43
16.	Kalaburagi		51			51
17.	Kodagu	23	4		7	34
18.	Kolar	41			4	45
19.	Koppal	29	15		1	45
20.	Mandya	49	11	4	3	67
21.	Mysore	41	13	3		57
22.	Raichur	16			1	17
23.	Ramanagara	36			12	48
24.	Shivamogga	35	8	3	16	62
25.	Tumakuru	22	16		9	47
26.	Udupi	68			1	69
27.	Uttara Kannada	42	3		10	55
28.	Vijayapura	15	12	13	3	43
29.	Yadgir	64	1			65
Grand Total		821	320	63	162	1366
Percentage		60.10%	23.43%	4.61%	11.86%	

*DNA=Data not available

Production technologies followed during 2019-20

Bengaluru Revenue Division Introduction of new varieties in Ragi, Paddy, introduction of dibbling method in Redgram and pulse magic, nipping, introduction of nutri cereals, Line sowing, guni padddati and transplanting in Ragi, DSR method in paddy, mechanization in paddy cultivation.

Mysuru Revenue Division DSR method in paddy, IFS, introduction new varieties in castor and paddy, wide row in sugarcane and trash mulching, bunch feeding in silkworm rearing, pheromone traps in Horticulture crops.

Belagavi Revenue Division: Drip irrigation, sprinkler irrigation, Millets cultivation, wide row in Sugarcane planting, organic farming, mechanical harvesting in paddy, IPM, INM.

Kalaburagi Revenue Division: Intercropping and crop rotation, nipping in Tur, Drip and sprinkler irrigation, mechanical harvesting in paddy, organic farming.

Beneficiary data

Table 29: Technology used during 2019-20

Sl. No.	Districts	Traditional Methods	Improved methods	Both	*DNA	Grand Total
1.	Bagalkote	29	15		2	46
2.	Bangalore Urban	1	62			63
3.	Belagavi	27	22	8		57
4.	Bellary	1	31		2	34
5.	Bidar	19	9	17		45
6.	Chamarajanagar	6	3		1	10
7.	Chikkaballapur	12	24	3	12	51
8.	Chikkamagaluru	27	21	6		54
9.	Chitradurga	28	6	21		55
10.	Dakshina Kannada	8	40	5	7	60
11.	Davangere		47		3	50
12.	Dharwad	16	11	18	1	46
13.	Gadag	3	30		2	35
14.	Hassan	4	8			12
15.	Haveri	23	15		5	43
16.	Kalaburagi		41	10		51
17.	Kodagu	22	4	1	7	34
18.	Kolar	2	42		1	45
19.	Koppal	19	26			45
20.	Mandya	23	7	37		67
21.	Mysore	29	17	11		57
22.	Raichur	7	9		1	17
23.	Ramanagara		47		1	48
24.	Shivamogga	16	33	7	6	62
25.	Tumakuru	6	5	36		47
26.	Udupi	1	66	1	1	69
27.	Uttara Kannada	28	17		10	55
28.	Vijayapura	15	14	13	1	43

Sl. No.	Districts	Traditional Methods	Improved methods	Both	*DNA	Grand Total
29.	Yadgir		65			65
Grand Total		372	737	194	63	1366
Percentage		27.23%	53.95%	14.20%	4.61%	

Beneficiary farmers who have adopted technologies like drip irrigation, sprinkler irrigation, fertigation, mechanical harvesting, threshing etc.

Bengaluru RD: 35 to 80 Percent

Mysuru RD: 60 to 80 Percent

Belagavi RD: 25 to 70 Percent

Kalaburagi RD: 4 to 40 Percent

Beneficiary data

Table 30: Technologies propagated by ATMA staff and adopted by the beneficiaries

Sl. No	District	Drip Irrigation	Sprinkler Irrigation	Fertigation	Mechanized harvest	Mechanized threshing	Others	*DNA	Grand Total
1.	Bagalkote	11	3	3				29	46
2.	Bangalore Urban	9	2	45	3			4	63
3.	Belagavi	27	11				1	18	57
4.	Bellary	6	11	7	2			8	34
5.	Bidar	37	2	2	3	1			45
6.	Chikkaballapur	47	1	1		1		1	51
7.	Chikkamagaluru	14	30	2	2			6	54
8.	Chitradurga	24	29	1	1				55
9.	Dakshina Kannada	25	7	16	7	1		4	60
10.	Dharwad	27	2	4				13	46
11.	Hassan	5	3					4	12
12.	Haveri	6	5	3				29	43
13.	Kalaburagi	51							51
14.	Kodagu	12	20		1			1	34
15.	Kolar	22	7	7	5			4	45
16.	Koppal	9	8	10	2			16	45
17.	Mandya	31	28	4	4				67
18.	Mysore	41	3	1				12	57
19.	Raichur	4	2	1				10	17
20.	Ramanagara	11	19	1	1	2	1	13	48
21.	Shivamogga	29	17	11	1			4	62

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Sl. No	District	Drip Irrigation	Sprinkler Irrigation	Fertigation	Mechanized harvest	Mechanized threshing	Others	*DNA	Grand Total
22.	Tumakuru	5	12	5	17	3		5	47
23.	Uttara Kannada	10	5					40	55
24.	Vijayapura	9	9	2				23	43
25.	Yadgir	35	23	6				1	65
26.	Udupi		11	51	7				69
27.	Gadag	7	6	3	1			18	35
28.	Chamarajanagar	6			1			3	10
29.	Davangere	20	19	2				9	50
Grand Total		540	295	188	58	8	2	275	1366
Percentage		39.5%	21.6%	13.8%	4.3%	0.6%	0.2%	20.1%	100.0%

*DNA-data Not available

The study attempted to unfold the major technology which could influence in sustenance of farming in the area. Amongst aspects identified are Drip irrigation, sprinkler irrigation, fertigation, mechanized harvest, mechanized threshing and other regional specific technologies are grouped in others. The adoption of water saving irrigation technology stand in first position with drip irrigation accounting to 39.5 percent of the responded farmers while sprinkler irrigation system adopted by is 21.6 percent of the surveyed beneficiaries. In total about 60 percent of the beneficiaries have adopted water saving irrigation system which is a welcome sign and could contribute to the sustenance of the farming system. This reflects that ATMA has contribution on water saving technology which is almost the need of the day.

Improved technologies helped to increase income of farmers

Bengaluru Revenue Division: Savings in water and labour; reduce of manual labour, reduction in cost of cultivation, better yields.

Mysuru Revenue Division: Labour issues overcome, decreased cost of labour, less seed rate, timely field activities, conservation of water & labour, efficient use of fertilizers, better yields, Saving money and labour cost, low cost of cultivation.

Belagavi Revenue Division: Conservation & savings in water and labour, increase in irrigated cropping area, solved problems of labour shortage, reduced cost of cultivation, better yields.

Kalaburagi Revenue Division: Reduction in cost of cultivation, labour problem solved, better yields.

The secondary data and beneficiary data complement the findings of the study

Beneficiary data

Table 31: Beneficiary farmer opinion on major benefit derived

S l. N o	District	Economic Growth	Water Conservation	Time Saving	Utilization of Available Natural Resources	Improved Quality of Crops	Chemical Free Environment	Others	DNA (Data Not Available)	Grand Total
1.	Bagalkote	16	4					8	18	46
2.	Bangalore Urban	26		34					3	63
3.	Belagavi	29		2		2		20	4	57
4.	Bellary	18	1	4	1				10	34
5.	Bidar	2	8		33	2				45
6.	Chikkaballapur	10	1	2	3			3	32	51
7.	Chikkamagaluru	54								54
8.	Chitradurga	5	9						41	55
9.	Dakshina Kannada	12	18	11	12	1	1	3	2	60
10.	Dharwad	34		1	3			6	2	46
11.	Hassan	2	1	2				3	4	12
12.	Haveri	17							26	43
13.	Kalaburagi			51				•		51
14.	Kodagu	1	3	6	13	2		8	1	34
15.	Kolar	32	9	1	1				2	45
16.	Koppal	23	4	1	1			3	13	45
17.	Mandya	18	16		26	2	1		4	67
18.	Mysore	21	11	4	8	6		1	6	57
19.	Raichur	8							9	17
20.	Ramanagara	37		2				1	8	48
21.	Shivamogga	18	5	21		2		4	12	62
22.	Tumakuru	30		15	1			1		47
23.	Uttara Kannada	14							41	55
24.	Vijayapura	23		9				5	6	43
25.	Yadgir	34	2	1				28		65
26.	Udupi	27	2	36	1			3		69
27.	Gadag	19	2	2					12	35
28.	Chamarajanagar	1	1	5					3	10
29.	Davangere	4	17	4	2				23	50
Grand Total		535	114	214	105	17	2	97	282	1366
Percentage		39.2%	8.4%	15.7%	7.7%	1.2%	0.2%	7.1%	20.6%	100.0%

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Majority of respondents felt the services of ATMA had helped them to improve their economic growth and rather income generation. This is the result of improved farming activity, diversifying production and also with use of farm mechanization. The respondents also expressed that ATMA support has reduced their time on their occupation and farming activity. This is the result of increased mechanization. About 8.4 percent respondents feel water conservation propagated by ATMA had helped them especially in the water starving districts such as Dakshina Kannada, Davangere, Mandya, Mysore and Bidar districts. The water conservation includes water harvesting proposed in ATMA project. The use of chemical resources and even improved quality of crops has not been much appreciated by the respondents.

Factors that influenced the use of these technologies

Bengaluru Revenue Division: Labour scarcity, farmer’s interest to adopt new technologies, awareness about water shortages, awareness about subsidies and credit facilities.

Mysuru Revenue Division: Availability of machinery, expensive labour and their scarcity, awareness about availability of technologies and machinery, credit etc.

Belagavi Revenue Division: Labour problem, credit availability, awareness about latest technologies, labour, shortage and erratic rainfall.

Kalaburagi Revenue Division: Labour problem, more availability of implements & machinery at subsidized rates, awareness about water shortage and labour.

Beneficiary data

Table 32: Factors influenced to use the technologies

Sl. No.	Districts	ATMA training/ awareness about new technologies/ varieties	Low Cost of cultivation & Usage of Natural resources, Less time consuming	Reduce the wastage	Save water	*DNA	Grand Total
1.	Bagalkote	8				38	46
2.	Bangalore Urban		60			3	63
3.	Belagavi	27	2			28	57
4.	Bellary	3	18			13	34
5.	Bidar	1	27			17	45
6.	Chamarajanagar	3	4			3	10
7.	Chikkaballapur		3	1	3	44	51
8.	Chikkamagaluru	4				50	54
9.	Chitradurga	3	1			51	55
10.	Dakshina Kannada	33	16	1	1	9	60

Sl. No.	Districts	ATMA training/ awareness about new technologies/ varieties	Low Cost of cultivation & Usage of Natural resources, Less time consuming	Reduce the wastage	Save water	*DNA	Grand Total
11.	Davangere		19		2	29	50
12.	Dharwad	24		2		20	46
13.	Gadag	7	11	3		14	35
14.	Hassan	5	2		1	4	12
15.	Haveri		21			22	43
16.	Kalaburagi	13		36		2	51
17.	Kodagu	1	3			30	34
18.	Kolar	26	4	5	1	9	45
19.	Koppal	5	12		1	27	45
20.	Mandya	7	45	1	3	11	67
21.	Mysore	40	5		6	6	57
22.	Raichur	1	7			9	17
23.	Ramanagara	33	7		1	7	48
24.	Shivamogga	22	2		4	34	62
25.	Tumakuru	43	1			3	47
26.	Udupi	64	2			3	69
27.	Uttara Kannada	1	6			48	55
28.	Vijayapura	21	2			20	43
29.	Yadgir	54	2			9	65
Percentage		32.87%	20.64%	3.59%	1.68%	41.22%	100%
Grand Total		449	282	49	23	563	1366

*DNA-Data Not available

Percentage of farmers who wish to continue these technologies

Bengaluru Revenue Division: 25 to 70 percent

Mysuru Revenue Division: 60 to 70 percent

Belagavi Revenue Division: 60 to 85 percent

Kalaburagi Revenue Division: 40 to 90 percent

Beneficiary data

Table 33: Beneficiary farmers who wish to continue to use the technologies

Sl. No.	Districts	Yes	No	*DNA	Grand Total
1.	Bagalkote	40	6		46
2.	Bangalore Urban	60	3		63

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Sl. No.	Districts	Yes	No	*DNA	Grand Total
3.	Belagavi	50	7		57
4.	Bellary	24		10	34
5.	Bidar	44		1	45
6.	Chamarajanagar	10			10
7.	Chikkaballapur	46	2	3	51
8.	Chikkamagaluru	54			54
9.	Chitradurga	55			55
10.	Dakshina Kannada	58		2	60
11.	Davangere	45	5		50
12.	Dharwad	44	2		46
13.	Gadag	23		12	35
14.	Hassan	10	2		12
15.	Haveri	18	20	5	43
16.	Kalaburagi	51			51
17.	Kodagu	33		1	34
18.	Kolar	44		1	45
19.	Koppal	38	1	6	45
20.	Mandya	63		4	67
21.	Mysore	51		6	57
22.	Raichur	8	8	1	17
23.	Ramanagara	45		3	48
24.	Shivamogga	60	2		62
25.	Tumakuru	47			47
26.	Udupi	69			69
27.	Uttara Kannada	25	15	15	55
28.	Vijayapura	41	1	1	43
29.	Yadgir	65			65
Grand Total		1221	74	71	1366
percentage		89.39%	5.42%	5.20%	

***DNA-Data Not available**

Around 89.39 percent have agreed to continue the technological components introduced in ATMA which is good and may benefit to sustain the farm production at higher level.

Role of ATMA in the adoption of the technologies

Bengaluru Revenue Division: Awareness programme through trainings, EVS, demonstrations, FS, FD, KG, FSI, motivate farmers to adopt new technologies, interactions with scientists, field visits to Progressive farmers' fields.

Mysuru Revenue Division: Awareness through trainings, demonstrations, EVs, FS, FSI etc; Motivate farmers to adopt these technologies, interactions with scientists and progressive farmers, method demonstrations.

Belagavi Revenue Division: Awareness programmes through trainings, exposure visits, demonstrations, KG, FSI, awareness through printed and electronic media, providing alternative solutions to local problems and interactions with scientists.

Kalaburagi Revenue Division: Strengthening extension activities; transfer of technology, creating awareness through trainings, demonstrations, exposure visits, FSI, KG etc. Arrangements of interactions with scientists of KVKs, agriculture universities and progressive farmers.

Beneficiary data

Table 34: Extension methods used by ATMA

Sl. No.	Districts	Technical information & Scientist interaction	Training	Exposure & Field Visit	Others	*DNA	Grand Total
1.	Bagalkote	10			4	32	46
2.	Bangalore Urban	59				4	63
3.	Belagavi	35			17	5	57
4.	Bellary	18		1		15	34
5.	Bidar	2	41			2	45
6.	Chamarajanagar	2		8			10
7.	Chikkaballapur	2				49	51
8.	Chikkamagaluru	27	26			1	54
9.	Chitradurga	1	44			10	55
10.	Dakshina Kannada	20	8	26	5	1	60
11.	Davangere	22				28	50
12.	Dharwad	12	2		15	17	46
13.	Gadag	21	1			13	35
14.	Hassan	10				2	12
15.	Haveri	16				27	43
16.	Kalaburagi			51			51
17.	Kodagu	7	4	13	5	5	34
18.	Kolar	33	10	1		1	45
19.	Koppal	11			2	32	45
20.	Mandya	21	28	15		3	67
21.	Mysore	17	4	35		1	57
22.	Raichur	7				10	17
23.	Ramanagara	22	9	11		6	48
24.	Shivamogga	26	9		17	10	62
25.	Tumakuru	8	18	21			47
26.	Udupi	1	61	6	1		69
27.	Uttara Kannada	2				53	55
28.	Vijayapura	24			13	6	43

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Sl. No.	Districts	Technical information & Scientist interaction	Training	Exposure & Field Visit	Others	*DNA	Grand Total
29.	Yadgir	10	25	30			65
Grand Total		446	290	218	79	333	1366
percentage		32.65%	21.23%	15.96%	5.78%	24.38%	100.00

*DNA-Data Not available

The farmer's opinion on the extension methods adopted show that 32.65 percent had rated the discussion arranged with scientist and experts are most beneficial while training conducted was liked by 21.23 percent. About 15.96 percent rated the field visits. The feedback on the extension method may be good reference for subsequent planning of ATMA programmes.

Causes for non-adoption of technologies

Bengaluru Revenue Division: Non availability of sufficient machinery in time, lack of awareness about new technologies, rainfed areas.

Mysuru Revenue Division: Non availability of sufficient machinery in time for rent, affordability, rainfed area, lack of awareness

Belagavi Revenue Division: Non availability of machinery during needy times, small holdings, high initial investment cost, lack of awareness

Kalaburagi Revenue Division Lack of awareness, small holdings, non-availability of labor during needy times.

Source of technology benefits:

Bengaluru Revenue Division: Agriculture Department under different schemes

Mysuru Revenue Division: Agriculture and allied Department under various schemes

Belagavi Revenue Division: Agriculture and allied Departments

Kalaburagi Revenue Division: Agriculture and allied Departments

Beneficiary data

Table 35: Technologies preferred by departments

Sl. No	District	Agriculture	Horticulture	Both	Others	*DNA	Grand Total
1.	Bagalkot	18		3		25	46
2.	Bangalore Urban	46		13		4	63
3.	Belagavi	28	5	5		19	57
4.	Bellary	19	1	3	1	10	34

RESULTS AND DISCUSSIONS

Sl. No	District	Agriculture	Horticulture	Both	Others	*DNA	Grand Total
5.	Bidar	29	13	2	1		45
6.	Chikkaballapur	36				15	51
7.	Chikkamagaluru	27	19	8			54
8.	Chitradurga	37	12			6	55
9.	Dakshina Kannada	37	2	19		2	60
10.	Dharwad	34	6			6	46
11.	Hassan	7		2		3	12
12.	Haveri	8				35	43
13.	Kalaburagi	51					51
14.	Kodagu	4	12	13	1	4	34
15.	Kolar	43		1		1	45
16.	Koppal	13				32	45
17.	Mandya	10	14	43			67
18.	Mysore	33	20	4			57
19.	Raichur	3				14	17
20.	Ramanagara	41		2		5	48
21.	Shivamogga	31		2	20	9	62
22.	Tumakuru	36	1		10		47
23.	Uttara Kannada	7				48	55
24.	Vijayapura	19	8			16	43
25.	Yadgir	11	19	35			65
26.	Udupi	67		2			69
27.	Gadag	17		1		17	35
28.	Chamarajanagar	2		1		7	10
29.	Davangere			13		37	50
Grand Total		714	132	172	33	315	1366
Percentage		52.3%	9.7%	12.6%	2.4%	23.1%	100.0%

*DNA-Data Not available

ATMA proposes an integrated extension services to the farming community. The Department involved are Agriculture, Horticulture, Animal husbandry, forest, sericulture, fisheries etc. The Department of agriculture is the one, to which ATMA project is attached and services of other departments are coordinated by the agency. The survey shows that service of Agriculture Department is preferred compared to others with like by 52.3 percent of respondents and the combined services of agriculture and horticulture is liked by another 9.7 percent. Thus, 65.5 percent of the respondents indicated that they liked efforts of ATMA staff's Agriculture activities. Horticulture in isolation has benefited only 9.7 percent, while the sericulture, forest and even Animal husbandry department had not shown their presence

in the minds of the beneficiaries. About 23.1 percent are not sure about the department's coordination and integration with this project. The result rather shows the need of closer integration of Departmental staff in implementation of the ATMA.

Modernization of farming practices across districts & divisions

Farming practices being followed generally

Bengaluru Revenue Division: Ploughing by using Bullocks & Tractors; sowing by broad casting & transplanting, inter cultivation- manual & Bullocks drawn implements, harvesting- manual & mechanical, agriculture-horticulture based farming system.

Mysuru Revenue Division: Traditional methods of mixed farming, broad casting and transplanting, agriculture and tobacco-based farming system, local methods of cultivation.

Belagavi Revenue Division: About 50 to 60 percent mechanization in farming. Others follow manual and traditional farming, organic farming, and agriculture-horticulture based farming system

Kalaburagi Revenue Division: Manual and traditional farming system, sole and mixed cropping, organic farming, mixed farming.

Beneficiary data

Table 36: Farming practices generally followed

Sl. No	District	Bio-Fertilizer	IPM, INM, Bio-Fertilizer	IPM	INM	Organic Farming, IFS	Inter-Cropping System	Others	*DNA	Grand Total
1.	Bagalkot	23				14			9	46
2.	Bangalore Urban	26				34			3	63
3.	Belagavi	28	4			20			5	57
4.	Bellary	26							8	34
5.	Bidar	38							7	45
6.	Chikkaballapur	14	7						30	51
7.	Chikkamagaluru	4	4	2					44	54
8.	Chitradurga	11						1	43	55
9.	Dakshina Kannada		20			8	2		30	60
10.	Dharwad	8	12	17					9	46
11.	Hassan		9			2			1	12
12.	Haveri	38							5	43
13.	Kalaburagi	51								51
14.	Kodagu	1	12			16	1		4	34
15.	Kolar	39							6	45
16.	Koppal	16				9	6		14	45

RESULTS AND DISCUSSIONS

Sl. No	District	Bio-Fertilizer	IPM, INM, Bio-Fertilizer	IPM	INM	Organic Farming, IFS	Inter-Cropping System	Others	*DNA	Grand Total
17.	Mandya	37		1				1	28	67
18.	Mysore	5	1					17	34	57
19.	Raichur		16						1	17
20.	Ramanagara	34				2			12	48
21.	Shivamogga	28	5		6	1	5		17	62
22.	Tumakuru	1						44	2	47
23.	Uttara Kannada	38				3			14	55
24.	Vijayapura	13	11	16					3	43
25.	Yadgir	11	53			1				65
26.	Udupi	31	34			1			3	69
27.	Gadag	32							3	35
28.	Chamarajanagar	7				3				10
29.	Davangere					26			24	50
Grand Total		560	188	36	6	140	14	63	359	1366
Percentage		41.0%	13.8%	2.6%	0.4%	10.3%	1.0%	4.6%	26.3%	100.0%

*DNA-Data not available

ATMA has support towards sustainable bio and organic farming rather than chemical concentrated farming system. About 41 percent of beneficiaries have reported that they are benefitted by shift to bio-fertilizers such as azotobacterial, vermicompost etc., in their farming activities. However, 26.3 percent felt that they are not sure about any single activity which benefitted them from the support of ATMA. The IPM and bio-fertilizers together is liked by 13.8 percent. Thus, more than 50 percent of the beneficiaries are aware of the bio fertilizers support extended by the ATMA. The Integrated nutrient management, the technology which could be desirable is found liking in Shivamogga district where in other districts this is not heard. The organic farming technology has found takes in many districts want it covered liking of 10.3 percent of beneficiaries. The inter-cropping technology is found taken in Dakshina Kannada district where such technology is found in garden crops. About 26.3 percent of the beneficiaries have not been able to express the practice proposed by ATMA.

Farming Practices followed during 2019-20

Bengaluru Revenue Division: Intercropping, crop rotation, INM, IPM, application of Bio-fertilizers, IFS.

Mysuru Revenue Division: Minor millets introduced, mechanized and advanced farming practices, intercropping, mechanization, also practiced old and new methods of farming.

Belagavi Revenue Division: About 40-50 percent adopted mechanization, machine

harvesting and threshing, Organic farming and IFS.

Kalaburagi Revenue Division: Manual and traditional farming system, sole and mixed cropping, organic farming and mixed farming

Beneficiary data

Table 37: Farming practices used during 2019-20

Sl. No	District	Bio-Fertilizer	IPM, INM, Bio-Fertilizer	IPM	INM	Organic Farming, IFS	Inter-Cropping System	Others	*DNA	Grand Total
1.	Bagalkote	23				15			8	46
2.	Bangalore Urban	1				59			3	63
3.	Belagavi	28	6			23				57
4.	Bellary	4	18						12	34
5.	Bidar	2			25				18	45
6.	Chikkaballapur	14	8						29	51
7.	Chikkamagaluru	17	2	2					33	54
8.	Chitradurga	27	2						26	55
9.	Dakshina Kannada	8	5		2	41	1		3	60
10.	Dharwad	11	14	18					3	46
11.	Hassan	3				8			1	12
12.	Haveri	22				16			5	43
13.	Kalaburagi		48						3	51
14.	Kodagu	1	12	2		15			4	34
15.	Kolar	23	19						3	45
16.	Koppal	11				14	6		14	45
17.	Mandya	28	5	2	24			2	6	67
18.	Mysore	7	7	2	2			11	28	57
19.	Raichur	7				9			1	17
20.	Ramanagara	4	28	6					10	48
21.	Shivamogga	2	15			7	4	1	33	62
22.	Tumakuru							47		47
23.	Uttara Kannada	25				16			14	55
24.	Vijayapura	15	13	15						43
25.	Yadgir					65				65
26.	Udupi		53			13	1		2	69
27.	Gadag	1	31						3	35
28.	Chamarajanagar	7				3				10
29.	Davangere					26			24	50
Grand Total		291	286	47	53	330	12	61	286	1366

***DNA-data not available**

The survey also attempted to understand the extent of continuation of the practices in the year 2019-20 which shows marginal changes. The usage of bio- fertilizers show marginal decrease whereas the adoption of Bio-IPM show marginal increase. The shift towards the organic farming indicates increased concern of farmers in ATMA adopted village towards sustaining and less of chemical-based farming. This could be a good initiative by the ATMA staff.

Hypothesis testing

Null Hypothesis: There is increase in adoption of improved farming practices of beneficiary farmers after participating in activities conducted by ATMA.

Alternate Hypothesis: There is no increase in adoption of improved farming practices of beneficiary farmers after participating in activities conducted by ATMA.

The sample data collected from the beneficiary farmers on farming practices used during 2019-20 against 2018-19 is shown in table 37 and 36 respectively. As seen from the tables, it could be inferred that the farmers have a preference for IPM, INM, Bio-fertilizers to the extent of 8.1 percent and organic farming and IFS to the extent of 13.90 percent. Hence, indicating varying adoption only in a few farming practices.

Based on the data the null hypothesis is rejected.

Farmers using vermicompost, IPM, INM, Biofertilizers and practicing rotation of crops, IFS etc.

Bengaluru Revenue Division: 20 to 60 percent

Mysuru Revenue Division: 20 to 60 percent

Belagavi Revenue Division: 20 to 25 percent

Kalaburagi Revenue Division -20 to 25 percent

ATMA facilitation to use technologies

Bengaluru Revenue Division: Yes. Through trainings, exposure visits, demonstrations

Mysuru Revenue Division: Yes. Through trainings, exposure visits, demonstrations, Krishi Melas, KG and FSI.

Belagavi Revenue Division: Yes. Through trainings, demonstrations, EVS, KG, Krishi Mela etc.

Kalaburagi Revenue Division: Yes. By organizing trainings, Exposure visits, demonstrations, KGS, Krishi Mela etc.

Beneficiary data

Table 38: ATMA facilitation in use of farming practices

Sl. No	District	Yes	No	*DNA	Grand Total
1.	Bagalkote	20	26		46
2.	Bangalore Urban	62	1		63
3.	Belagavi	36	21		57
4.	Bellary	11		23	34
5.	Bidar	44		1	45
6.	Chikkaballapur	51			51
7.	Chikkamagaluru	54			54
8.	Chitradurga	51	1	3	55
9.	Dakshina Kannada	50		10	60
10.	Dharwad	23	23		46
11.	Hassan	11	1		12
12.	Haveri	11	32		43
13.	Kalaburagi	51			51
14.	Kodagu	21	5	8	34
15.	Kolar	42		3	45
16.	Koppal	10	32	3	45
17.	Mandya	60		7	67
18.	Mysore	53		4	57
19.	Raichur	11	5	1	17
20.	Ramanagara	42		6	48
21.	Shivamogga	56	4	2	62
22.	Tumakuru	46		1	47
23.	Uttara Kannada	1	44	10	55
24.	Vijayapura	21	21	1	43
25.	Yadgir	65			65
26.	Udupi	67	1	1	69
27.	Gadag	19	5	11	35
28.	Chamarajanagar	10			10
29.	Davangere	32	18		50
Grand Total		1031	240	95	1366
Percentage		75.48%	17.57%	6.95%	100.00%

*DNA-data not available

The data in table 37 reflects that 75.5 percent of beneficiaries feel that ATMA had facilitated and guided them in adopting Bio, IPM technology and improved farming practices. About 17.57 percent feel that ATMA did not help them in changing the farming practices.

6.5.2 Impact on cropping pattern

General cropping pattern in the area

Bengaluru Revenue Division: Mono cropping in 40 percent of the area; Ragi, Maize, Groundnut, Paddy and Cotton. During Kharif; Arecanut in Shivamogga district.

Mysuru Revenue Division: Mono cropping in 40 percent of area; Paddy in low laying areas, Maize, Ragi, Jowar, Turmeric. Tobacco during Kharif.

Belagavi Revenue Division: Mostly monocropping of green gram, Cotton, Maize, Onion, Bengal gram, Jowar, Sunflower, Sugarcane etc.

Kalaburagi Revenue Division: Monocropping, wheat, Paddy, Maize, Soyabean, Green gram, Black gram, Soyabean, cotton & Redgram; Paddy followed by Paddy; In Raichur, Major crop is Paddy followed by Bengalgram and Jowar and Red gram in irrigation belt.

Cropping pattern followed during 2019-20

Same cropping pattern followed during 2018-19 & 2019-20 season wise. The secondary data furnished by the Project Directors of the districts is also supported by beneficiary data as below.

Has cropping pattern changed during 2019-20?

Bengaluru Revenue Division: No. In Shivamogga district, most of the farmers are shifting from Paddy to Areca and Maize crops.

Mysuru Revenue Division: No. In Mysuru district, instead of Tobacco followed by cereals like Ragi or Maize or pulse, it is replaced by pulses, cereal pulses or pulses, cereals-vegetable/flower during 2019-20.

Belagavi Revenue Division: Yes. But not very significant. In Belagavi district, due to awareness created regarding millets they are gaining importance.

Kalaburagi Revenue Division: Yes. But not very significant.

Beneficiary data performing to cropping pattern followed by the farmers during 2018-19 and 2019-20 is presented in below tables.

Table 39: Cropping pattern followed during - Kharif crops (Rainfed)

Sl. No.	Districts	Cotton		Groundnut		Maize		Paddy		Pulses		Ragi		Sugarcane		Grand Total
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	
1	Bagalkote									1	1					2
2	Bangalore Urban															0
3	Belagavi			2	2											4
4	Bellary															0
5	Bidar									33	38					71
6	Chamarajanagar															0
7	Chikkaballapura					1	1	1	1	4	8	33	29			78
8	Chikkamagaluru					2	4				1	52	40			99
9	Chitradurga					19	18			18	11	9	4			79
10	Dakshina Kannada							46	47							93
11	Davangere					6	9	3	3					2	2	22
12	Dharwad	5	5			1	1	4	4	1	1					22
13	Gadag		1			1										2
14	Hassan															0
15	Haveri															0
16	Kalaburagi									32	32					64
17	Kodagu							31	31							62
18	Kolar									2	2	9	9			22

Sl. No.	Districts	Cotton		Groundnut		Maize		Paddy		Pulses		Ragi		Sugarcane		Grand Total
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	
19	Koppal															0
20	Mandya									4	3	15	15			37
21	Mysore					1	1			2	1			1	1	7
22	Raichur															0
23	Ramanagara											17	15			32
24	Shivamogga					15	14	7	2			4	4			46
25	Tumakuru			10	10	20	19					17	17			93
26	Udupi							51	65							116
27	Uttara Kannada															0
28	Vijayapura															0
29	Yadgir															0
	Total	5	6	12	12	66	64	143	153	97	98	156	133	3	3	951

The rainfed kharif crops under rainfed does not show much change over the years other than paddy, which is major food crop. The marginal shift over year is to meet the family requirement rather than any change in cropping pattern. Further the increased mechanization for transplanting and harvest has motivated many to shift to this crop. In the districts of Udupi and Dakshina Kannada the farm mechanization advocated by ATMA has effect in this regard. There no much shift in other Kharif crops. The farmers growing Ragi in Kharif has gone down while those growing pulses has increased marginally. There is no definite shift from one crop to other by surveyed farmers. The farmers growing sugarcane which is almost an annual crop has not seen change over years.

Table 40: Cropping pattern followed during – Rabi crops (Rainfed)

Sl. No.	Districts	Maize		Wheat		Grand Total	
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
1	Bagalkote	12	12			12	12
2	Bangalore Urban						
3	Belagavi	1	1			1	1
4	Bellary	1	1			1	1
5	Bidar	7	8			7	8
6	Chamarajanagar	6	6			6	6
7	Chikkaballapura						
8	Chikkamagaluru	18	17			18	17
9	Chitradurga						
10	Dakshina Kannada						
11	Davangere						
12	Dharwad	8	8	1	1	9	9
13	Gadag	2	2	1	1	3	3
14	Hassan						
15	Haveri	4	4			4	4
16	Kalaburagi		30				
17	Kodagu						
18	Kolar	3	3			3	3
19	Koppal	3	3			3	3
20	Mandya	3	3			3	3
21	Mysore	2	2			2	2
22	Raichur						
23	Ramanagara						
24	Shivamogga						
25	Tumakuru						
26	Udupi						
27	Uttara Kannada						
28	Vijayapura	2	2	3	3	5	5
29	Yadgir						
Total		72	102	5	5	77	107

The Rabi crops shows marginal increase from the year of 2018-2019 to 2019-2020. There was considerable increase in the number of farmers who raised Rabi crops in Kalaburagi district and other districts hardly show any change over the years. The increase in Rabi in Kalaburagi was due to increase in the area under Maize which was mainly due to price factor rather extension factor. This shows the ATMA had no much influence on farmers to grow rainfed Rabi crops.

Table 41: Cropping pattern followed during – Summer crops (Rainfed)

Sl. No.	Districts	Cotton		Paddy		Grand Total
		2018-19	2019-20	2018-19	2019-20	
1	Bagalkote					0
2	Bangalore Urban					0
3	Belagavi					0
4	Bellary					0
5	Bidar					0
6	Chamarajanagar					0
7	Chikkaballapura					0
8	Chikkamagaluru					0
9	Chitradurga					0
10	Dakshina Kannada					0
11	Davangere					0
12	Dharwad					0
13	Gadag					0
14	Hassan					0
15	Haveri					0
16	Kalaburagi					0
17	Kodagu					0
18	Kolar					0
19	Koppal					0
20	Mandya					0
21	Mysore	1	0			1
22	Raichur					0
23	Ramanagara					0
24	Shivamogga			1	0	1
25	Tumakuru					0
26	Udupi					0
27	Uttara Kannada					0
28	Vijayapura					0
29	Yadgir					0
Total		1	0	1	0	2

There was hardly any farmer growing summer crops amongst respondent beneficiaries except one each in Mysore district and Shivamogga districts. The farmers who have grown summer crop in the year 2018 -19 had discontinued and the one in Shivamogga has gone for summer crop. There was no specific reason reported for such changes.

Table 42: Cropping pattern followed-Perennial crops

Sl. No.	Districts	Arecanut		Coconut		Coffee		Fruits		Grand Total
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	2018-19	2019-20	
1	Bagalkote									0
2	Bangalore Urban									0
3	Belagavi									0
4	Bellary							1	1	2
5	Bidar									0
6	Chamarajanagar									0
7	Chikkaballapura									0
8	Chikkamagaluru	8	6	40	40					94
9	Chitradurga	1	1	1	1			3	3	10
10	Dakshina Kannada	47	42							89
11	Davangere	2	2							4
12	Dharwad									0
13	Gadag									0
14	Hassan					3	3			6
15	Haveri									0
16	Kalaburagi									0
17	Kodagu					30	30			60
18	Kolar			1	1			1	1	4
19	Koppal									0
20	Mandya			3	4			2	2	11
21	Mysore			1						1
22	Raichur									0
23	Ramanagara	1	1	2	2			5	5	16
24	Shivamogga	6	1							7
25	Tumakuru									0
26	Udupi	6	4							10
27	Uttara Kannada									0
28	Vijayapura									0
29	Yadgir									0
	Total	71	57	48	48	33	33	12	12	314

There are mainly four identified perennial crops namely areca nut, coconut, coffee and fruit crops grown by the beneficiary farmers. There is not much change in number of farmers who were growing these crops over year. Further coverage of these crops are also considerably low. The growing of these crops are specific to region and climate and hence the ATMA staff could not play much role in changing the coverage of these crops.

Factors that influenced the change

Bengaluru Revenue Division: Creating awareness to farmers: Price of Arecanut and easy cultivation practices in Maize.

Mysuru Revenue Division: Technical guidance and creating awareness.

Belagavi Revenue Division: Awareness to farmers.

Kalaburagi Revenue Division: Awareness to farmers.

Role of ATMA in change of cropping pattern

Bengaluru Revenue Division: Implementation of ATMA activities

Mysuru Revenue Division: Implementation of ATMA activities

Belagavi Revenue Division: Implementation of ATMA activities

Kalaburagi Revenue Division: Implementation of ATMA activities

Hypothesis testing

Null Hypothesis: Change in the cropping pattern of beneficiary farmers after ATMA interventions.

Alternate Hypothesis: There is no change in the cropping pattern of beneficiary farmers after ATMA interventions.

The beneficiary data presented in tables 39 & 40 suggest that there was no definite shift in the cropping pattern of all the districts for major crops. The Secondary data also suggest that there was no change in the cropping pattern during the year 2019-20.

Hence, the null hypothesis is rejected for all districts.

Impact on Yield and productivity of crops**Normal yield per Acre of crops in the area during 2018-19**

Bengaluru Revenue Division: Ragi-3-12 q/ac (Chikkaballapur, Chitradurga, Kolar, Tumakuru), Paddy-18 q/ac (Shivamogga), Maize-12-18 q/ac (Chitradurga & Shivamogga), Ground nut-3 q/ac (Tumakuru), Redgram-3-10 q/ac (Chikkaballapur & Tumakuru), Cotton-4-5q/ac (Chitradurga).

Mysuru Revenue Division: Ragi 5-8 q/ac- Chikkamagaluru, Hassan, Kodagu Mysuru, Paddy- 12-19 q/ac. Chamarajanagar, Chikkamagaluru, Hassan, Mysuru.

Belagavi Revenue Division: Paddy-15-18 q/ac, Sugar cane-18-65 tons/acre, Maize-8-20 q/ac, Tur-3. 5 q/ac (Vijayapura), Greengram-3.5-12 q/ac, Jowar-5-12 q/ac, Soyabeen-10-12 q/ac, Bengalgram-3-12 q/ac, Ground nut-8-14q/ac.

Kalaburagi Revenue Division: Paddy-5-12 q/ac, Maize-8-9 q/ac, Tur-3-4 q/ac, Bajra-5-6 q/ac, Soyabeen-7q/ac.

Yield per Acre of crops during 2019-20

Bengaluru Revenue Division: Ragi 5--15 q/ac (Chitradurga, Kolar, Ramanagara), Paddy-18 q/ac (Shivamogga), Maize-13-20 q/ac - (Chitradurga - Shivamogga), Ground nut 5-6 q/ac - (Kolar), Cotton-5-6 q/ac (Chitradurga)

Mysuru Revenue Division: Paddy-18-22 q/ac (Dakshina Kannada, Kodagu, Mandya), Maize-18 q/ac (Chamarajanagar), Jowar - q/ac (Chamarajanagar)

Belagavi Revenue Division: Paddy-19-20 q/ac, Sugar cane-25-60 tons/ac, Tur-5 q/ac, Greengram-2.5 to 11.5 q/ac, Jowar- 6-7 q/ac, Soyabeen-10-12 q/ac, Bengalgram-3-13.5 q/ac, Ground nut-7-14 q/ac.

Kalaburagi Revenue Division: Paddy-25-30 q/ac, Maize-10-11 q/ac, Jowar-4 q/ac, Bajra- 8-10 q/ac, Groudnut-7-8 q/ac, Tur-4-5 q/ac.

Increase / decrease in the yield /Acre of crops during2019-20

Bengaluru Revenue Division: Chikkaballapur, Chitradurga- Say Yes, Increase.

Mysuru Revenue Division: Chamarajanagar, Kodagu, Mysuru Say Yes in increase

Belagavi Revenue Division: Bagalkot, Belagavi, Haveri, Uttarakannada, Vijayapura, Gadag Say Yes increase

Kalaburagi Revenue Division: Bidar, Koppal, Raichur, Yadgir- Say Yes – Increase.

Beneficiary data pertaining to average yields of crops during 2018-19 and 2019-20 is presented in below table

Beneficiary data

Table 43: Average yield in Kharif (in q/ac)

Sl. No.	Crop Details	Rainfed		Irrigated	
		2018-19	2019-20	2018-19	2019-20
1	Cotton	3.8	4	4	4
2	Groundnut	2.8	3.1	0	0
3	Maize	3.05	4.4	2.8	2.85
4	Paddy	3	4	3.2	3.4
5	Pulses	2.35	3.4	2.2	2.2
6	Ragi	2.6	3.6	3	3.1
7	Sugarcane	5	5.6	4.4	4.4
8	Sunflower	0	0	1	1
9	Turmeric	0	0	3	3

The average productivity of crops in kharif season as reported by the beneficiaries show bit lower under irrigated condition than in rainfed cultivations. The respondent could hardly provide any reason for such behaviors.

Table 44: Average yield in Rabi (in q/ac)

Sl. No.	Crop Details	Rainfed		Irrigated	
		2018-19	2019-20	2018-19	2019-20
1	Wheat	2.3	2.3	2.35	2.35

The results in table above show the higher yield of rabi crops by over 60 percent under irrigated condition Such increase was due to providing water to crops.

Table 45: Average yield in summer (in q/ac)

Sl. No.	Crop Details	Rainfed		Irrigated	
		2018-19	2019-20	2018-19	2019-20
1	Groundnut	0	0	2.7	1.7
2	Maize	0	0	0	2
3	Paddy	0	0	3.4	3.9
4	Pulses	0	0	2	2
5	Sugarcane	0	0	7	0

The perennial crops reported an average yield. The fruit crops and arecanut show marginally lower under irrigated condition while they show higher yield under rainfed conditions. The farmers agreed that even the rainfed Arecanut are those grown in low lying areas where soils are normally moist even in summer with support of natural springs and infiltrations. Such plantations with improved drainage tend to give better yield.

Reasons for increase/Decrease during 2019-20

Bengaluru Revenue Division: Good rain & less pest attack, improved technologies in Ragi & Redgram, Improved practices in crop management.

Mysuru Revenue Division: Improved practices in crop management, adoption of modern technologies.

Belagavi Revenue Division: Good rainfall distribution, good management practices, timely sowing and other operations, INM & IPM practices in Paddy, shortage of rains in Gadag led to low yields in major crops.

Kalaburagi Revenue Division: Good rainfall favorable conditions for crop, good extension work, good pest & disease management, good quality & high yielding varieties.

Average annual income of farmers during 2018-19

Bengaluru Revenue Division: Chikkaballapur-Rs.30,000-35,000/Annum, Chitradurga- Rs.18000-20000; Davangere Rs.5000-6000; Kolar – Rs.50000-60000

Mysuru Revenue Division: Chamarajanagar -Rs.15,000/Acre/Year, Dakshina Kannada- Rs-42,000/Acre.

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Belagavi Revenue Division: Bagalkot- Rs.20,000/Acre, Gadag- Rs.25,000-28,000, Haveri-4 Rs.0,000/Acre, Vijayapura- Rs.22,000-25,000 Per Acre.

Kalaburagi Revenue Division: Bidar-Rs. 20,000/Acre, Raichur- Rs.10,000-15,000, Yadgir- Rs.5000-8000 Per Acre.

Average income of farmers during 2019-20

Bengaluru Revenue Division: Chikkaballapur- Rs.40,000-45,000/Annum, Chitradurga- Rs.22,000-24000, Davangere Rs.4500-5000, Kolar - Rs.60,000 - 70,000

Mysuru Revenue Division: Chamarajanagar -Average Rs.18,000/Acre/Year, Dakshina Kannada- Rs-51,000 Other Districts not furnished

Belagavi Revenue Division: Bagalkot- Rs.22,500/Acre, Gadag- Rs.25,000-30,000, Haveri- Rs.45,000/Acre, Vijayapura- Rs.27,000-35,000 Per Acre,

Kalaburagi Revenue Division: Bidar-Rs. 22,500/Acre, Raichur-Around Rs.15,000 per acre, Yadgir- Rs.5000-10000 Per Acre,

Secondary information furnished by the Project Directors (ATMA) say that there was increase in the income of farmers during 2019-20.

Reasons for the increase in income during 2019-20.

Bengaluru Revenue Division: Adoption of new technologies, intervention of ATMA.

Mysuru Revenue Division: Improved farming practices MSP for paddy and Ragi.

Belagavi Revenue Division: Better rains, Adoption of improved production technologies, Regular information through trainings, Exposure visits, Demonstrations, Kisan Goshties, FS, etc. by ATMA.

Kalaburagi Revenue Division: Good rainfall distribution, good extension work, improved and mechanized farming practices.

Influence of ATMA in increase of income of farmers

Bengaluru Revenue Division: Implementation of ATMA activities.

Mysuru Revenue Division: Need based trainings & other activities by ATMA.

Belagavi Revenue Division: Motivating farmers through ATMA activities, training on value addition & e-marketing, Adoption of IFS, INM, IPM etc.

Kalaburagi Revenue Division: Implementation of ATMA activities.

Beneficiary data**Table 46 Effect of ATMA intervention on beneficiary farmer's income**

Sl. No	District	Yes	No	*DNA	Grand Total
1	Bagalkote	9	37		46
2	Bangalore Urban	62	1		63
3	Belagavi	23	33	1	57
4	Bellary	20	14		34
5	Bidar	45			45
6	Chikkaballapura	30	18	3	51
7	Chikkamagalur	53		1	54
8	Chitradurga	55			55
9	Dakshina Kannada	53	3	4	60
10	Dharwad	16	30		46
11	Hassan	12			12
12	Haveri	22	21		43
13	Kalaburgi	49		2	51
14	Kodagu	24	7	3	34
15	Kolar	45			45
16	Koppala	11	34		45
17	Mandya	51		16	67
18	Mysore	52		5	57
19	Raichur	14	3		17
20	Ramanagar	41	7		48
21	Shivamogga	56	2	4	62
22	Tumkur	44		3	47
23	Uttara kannada	6	48	1	55
24	Vijayapura	20	22	1	43
25	Yadagiri	64	1		65
26	Udupi	66		3	69
27	Gadag	28	5	2	35
28	Chamarajanagar	10			10
29	Davanagere	37	13		50
Grand Total		1018	299	49	1366
Percentage		74.5%	21.9%	3.6%	100.0%

*DNA (Data not Available)

Hypothesis testing

Null Hypothesis: Increase in the income of beneficiary farmers after ATMA interventions.

Alternate Hypothesis: There is no increase in the income of beneficiary farmers after ATMA interventions.

Available data regarding increase in the income of beneficiary farmers in table 46 and

indicate that ATMA intervention through its different activities has resulted in the increase in income of farmers. About 74.5 percent of the beneficiary farmers have opined that ATMA intervention is the major cause for increase in the income of farmers during 2019-20.

Thus, the null hypothesis is accepted.

Marketing of Agriculture Produce- Place of Marketing

Percentage of Agricultural produce marketed

Bengaluru Revenue Division: 35 to 90 percent, lowest-32 percent -Davangere, 80 percent -Chitradurga, 90 percent -Kolar.

Mysuru Revenue Division: 25-80 percent, lowest 25 percent -Dakshina Kannada, highest-80 percent Chamarajanagar.

Belagavi Revenue Division: 60 to 90 Percent, lowest- Uttara Kannada, highest-Bagalkot Haveri, Belagavi.

Kalaburagi Revenue Division: 35 to 95 percent, lowest-35 percent in Raichur district, highest-95 percent in Yadagir district.

Marketing of Agriculture Produce

Bengaluru Revenue Division: APMC, local market, Milk cooperatives.

Mysuru Revenue Division: APMC, local market, private shops, international market.

Belagavi Revenue Division: APMC, local market- private markets, neighboring districts & states.

Kalaburagi Revenue Division: APMC, local market- private markets, neighboring districts & states.

Price got by the farmers for their produce

Bengaluru Revenue Division: Regional market value- Ramanagara district, Ragi-Rs.3000-3120/Q-Chikkaballapur- Kolar, Maize- Rs 1400/Q; Ragi- Rs 2500/Q; Cotton- Rs 4500/Q in Chitradurga.

Mysuru Revenue Division Regional market value-all districts.

Belagavi Revenue Division: Regional market value.

Kalaburagi Revenue Division As per market value, MSP, according to demand and supply Bidar, Koppal & Raichur districts. Yadgir- Tur -Rs,4,000-5,000/Q.; Cotton Rs 5000-6000/Q; Paddy- Rs 1500-2000/Q; Ground nut- Rs 5000-6000/Q; Jowar- Rs 1500-2000/Q Bajra- Rs 1000-1200/Q;

ATMA facilitation in educating the farmers to market their produce

Bengaluru Revenue Division: All district except Bengaluru Urban say they educate the farmers during trainings and exposure visits.

Mysuru Revenue Division: All the districts except Chikkamagaluru Say 'yes'. They (Mandya & Dakshina Kannada) educate the farmers to market their produce through FPOs.

Belagavi Revenue Division: All districts say yes. They provide market information of APMCs, FPOs local private markets and neighboring or state market and even online marketing. Demonstration on grading using spiral separators were conducted to farmers groups.

Kalaburagi Revenue Division: Bidar, Koppal, Raichur & Yadgir districts say 'Yes'

Produce marketed in raw or processed form

Bengaluru Revenue Division: Both row and processed form of agriculture commodities marketed. 80 percent produce marketed raw- Shivamogga.

Mysuru Revenue Division: Farmer's market their produce both in raw and processed form.

Belagavi Revenue Division: Marketed both in raw and processed form 90 percent of produce marketed raw- Bagalkot district.

Kalaburagi Revenue Division: Yes, all district say both raw and processed form is marketed.

Activity wise correlations with impact indicators for identifying core activities.

This aspect already discussed in page number 53.

The ATMA programme has attempted to identify the specific technology which are the need at the micro level which later proved effective and created demand. Ex: - The process of conversion of arecanut husk into nutrient rich compost which otherwise was thrown at road side, found to be very much useful.

Effective for organic farming and also reduced the environment risk on roadside. Likewise, growing of mushroom using the paddy straw as feed stock has seen lot of buyers in Dakshina Kannada district.

The farm mechanization is another activity very much adopted by farmers all over the state. Thus, the technology effectiveness and adoption has shown good correlations.

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CHAPTER 7: RECOMMENDATIONS

Short-term practicable

1. The annual action plans should be prepared before the start of the financial year based on the research extension priorities identified for the districts in the SREP (Strategic Research Extension Plan) and keeping in mind the agro-ecological conditions and existing gaps in technology and dissemination in all agriculture and allied sector areas.
2. Bottom-up approach in the preparation of AAPs and allocation of resources should be followed at different levels. The planning at district & taluk levels needs to be strengthened.
3. More allocations should be made for farmers-oriented activities during planning than administration and manpower component.
4. Allied sectors like Horticulture, Sericulture, Animal Husbandry and Fisheries should have been more effectively involved in ATMA activities based on the priority of each sector in the taluks. Allied sector wise AAPs need to be prepared each year involving the allied sectors in the planning process.
5. Allocation of resources to each major group of ATMA activities should be done as per financial allocation prescribed in the guidelines.
6. The expenditure towards the manpower and administration far exceeds the expenditure incurred towards ATMA activities taken up for farmers. All possible efforts should be made to bring down the administration costs and manpower expenditure to the extent prescribed under the ATMA guidelines.
7. The Farmer Advisory Committees at districts and taluk levels have to be reconstituted in the districts and taluks as per ATMA guidelines 2018.
8. Adequate representation of SC, ST & women farmers as prescribed under the guidelines in the farmer's advisory committees needs to be taken up in districts and taluks.
9. The quarterly meetings of SFAC, ATMA GB, DFAC needs to be conducted periodically at regular intervals in State, districts & taluk levels as per ATMA guidelines 2018.
10. The monthly meeting of Block Technology Teams (BTT) headed by the Assistant Director of Agriculture has to be conducted compulsorily every month in all the taluks.
11. The BFAC meetings of taluks need to be conducted every month during cropping season and quarterly during lean season in each taluk.
12. The involvement of allied sector in planning and implementation of ATMA activities

at field level is very meagre, physical & financial allocation to these sectors need to be enhanced proportionate to the sectoral activities undertaken in each taluk and districts.

13. Farmer oriented activities pertaining to allied sectors needs to be implemented by the concerned allied sector agencies which will lead to have higher impact on the outcome.
14. Convergence with government and non-governmental sectors has to be ensured for effective planning and implementation of the scheme objectives. Officers concerned at district and taluk levels need to be trained in convergence schemes available under State and Central Government programmes.
15. The presence of Deputy Project Director of ATMA at district level need to be ensured during the scheme period for effective planning and implementation of the scheme.
16. The concurrent monitoring and evaluation study by third party should begin at least by the end of first quarter of the financial year. So that monitoring of the activities is done during implementation process.
17. The impact of the ATMA activities on the crop production aspects should be initiated during the succeeding year.
18. Involvement of non-governmental organizations, ACABC trained personnel and DAESI trained input dealers should be ensured for realizing the objectives of the scheme.
19. ATMA functionaries at district, taluk and hobli level should be allowed to devote more time for planning and implementing ATMA activities.
20. Efforts need to be made for improving the participation of SC/ST farmers in ATMA activities in the districts of Ramanagara, Belagavi, Gadag and Uttara Kannada districts.
21. More trainings and exposure visits need to be organized and aspects like marketing linkages, value addition and income generating activities should be also considered

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ANNEXURES

Annexure-1 Terms of Reference

Terms of reference for the Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency(ATMA) Scheme in Karnataka State during 2018-19

Sl. No.	Content	Page no.
1	Title of the Study	1
2	Department implementing the Scheme	1
3	Background and the context	1
4	Present Status of the Scheme	1
5	Human Resource Development (HRM)	2
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Terms of reference for the Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency(ATMA) Scheme in Karnataka State during 2018-19

1. Title of the study:

Concurrent Monitoring and Evaluation of ATMA (Agricultural Technology Management Agency; Support to State Extension Programmes for Extension Reforms) scheme in Karnataka State during the year 2018-19.

2. Department/Agency implementing the Scheme:

The Department of Agriculture Govt. of Karnataka.

3. Background and the context:

The scheme "Support to State Extension programs for Extension Reforms" is the main scheme to operationalize agricultural and allied departmental extension reforms across the country. Under the scheme, funding support is being provided to the States/Union Territories for undertaking extension reforms within the broad purview of the Policy Framework for Agriculture Extension (PFAE), complying with its key areas/norms, and being operated based on extension Work plans prepared by them.

4. Present Status of the Scheme:

ATMA Model of Agricultural Extension Reforms Scheme was implemented during 2005-06 in nine districts of the State namely; Bidar, Gulbarga, Shimoga, ChamaraJanagar , Kolar, Koppal, Haveri, Bijapur and Hassan. Since 2007-08, the scheme is being implemented in all the districts of the state.

The guidelines for the extension reforms were modified during the year 2014 and 2018 by strengthening the extension machinery and utilizing it for synergizing the interventions under the scheme.

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After the issue of Government Orders, 30 District Level ATMA Steering Committees (DLASC) and 174 Taluk Level ATMA Implementation Committees (TLAIC) have been constituted. The District Level Steering Committees are headed by Chief Executive Officers of the Zilla Panchayaths with the District Joint Director of Agriculture being its Member Secretary. The Taluk level ATMA Implementation Committees have Taluk Assistant Directors of Agriculture as their Chairperson, with the Block Technology Manager of the Taluk being its Member Secretary.

At the State level, the Inter Departmental Working Group (IDWG) is headed by the Additional Chief Secretary & Development Commissioner with Commissioner for Agriculture being the State Nodal Officer. The Agriculture Department of Government of Karnataka is the Nodal Department.

5. Human Resource Development (HRM):

For HRM and capacity building of extension staff, two State Agricultural Extension Management and Training Institutes (SAMETI's) have been identified, (1) Regional Centre (South) i.e., University of Agricultural Sciences (UAS), Bangalore and (2) Regional Centre (North) i.e., UAS, Dharwad. The Extension officers of different development departments have been given orientation training, core team training, district level team training, Participatory Rural Appraisal (PRA) exercise and preparation of inventories. These trainings have been planned well in advance in the work shop at SAMETI's level wherein the training contents, modules and type of trainings are finalized. Further, trainings on implementation of on-farm demonstrations and farm schools are also being given importance at SAMETI's and District Level.

6. Objectives/Design of the Scheme:

- Under ATMA model of Agricultural Extension System, there is bottom -up model of planning, wherein plans are prepared at village, block, district and State levels, duly recognizing the constraints in improving the productivity of crops in particular, and economic status of farming community in general.

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- As per these plans, efforts to bridge the gap between potential and actual yields are on. Extension activities under this system are group based and marketing avenues are effectively made use in case of cultivation of new/alternate crops.
- ATMA has the main responsibility of all the technology dissemination activities at the district level. It has linkages with all the line Departments, Research organizations, non-governmental organizations and agencies associated with agricultural development in the districts, with substantial representation of farmer organizations and women farmers, research and extension units within the district such as Krishi Vignana Kendras, Zonal Research Stations, Departments of Agriculture, Horticulture, Sericulture, Fisheries, Animal Husbandry, Social Forestry and Marketing etc.

Other components:

- a. Convergence of line department's programmes and operating on gap filling mode by formulating Strategic Research and Extension Plan (SREP) and annual State Extension Work Plans(SEWP)
- b. Programmes are prepared on gap filling mode by formulating SREP at the District Level and annual work plans at taluk and district level. Concerned departments like Agriculture, Horticulture, Animal Husbandry, Sericulture, Watershed development, Social forestry and Fisheries are converged in preparation of plans and the implementation of the programme.
- c. **Group Approach to Extension:** Farmers Interest Groups (FIG)/Commodity Interest Groups (CIG) have been formed as a part of social mobilization and to also undertake extension work through group approach.
- d. **Gender Concerns:** Farm women have been mobilized into groups, their capacity building and group extension programmes have been taken-up.

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- e. **Sustainability of extension service:** All farmer based activities have been ensured through beneficiary contribution with respect to trainings, exposure visits, demonstrations and farmer group formations.

The scheme is being implemented with 60:40 grant sharing pattern between Government of India and Government of Karnataka.

Progress under ATMA Scheme during 2018-19 is as under:

(Rs. in lakhs)

Opening Balance	Grants released	Total Grants	Total Expenditure	USB	%of progress
737.99	4306.35	5044.34	3941.06	1103.28	78%

8. Evaluation Scope Purpose and Objectives

The scope of the study is spread over all the 29 districts and 167 talukas where the scheme is implemented. It covers the various activities undertaken under the scheme. The purpose is to examine the implementation process and assess the achievements of physical and financial targets and the impact of the scheme and to get the necessary feedback for further improvement.

The objectives are:

1. To assess the impact of the scheme on adoption of technology, cropping pattern, knowledge base and farming practices of the farmers.
2. To examine the impact on production productivity and yield across the regions.
3. To evaluate the various farmers oriented activities under the scheme across the divisions and the extent of achievement in Research-farmer-Extension linkages.
4. To assess the progress under the scheme in terms of achievement of physical and financial targets, capacity building and implementation of the scheme as per the guidelines.
5. To examine to what extent the programme objectives are achieved and give specific suggestions if any, for effective implementation of the programme.

9. Evaluation Questions /Issues (Inclusive not exhaustive):

Evaluate the performance of the scheme based on the following parameters across divisions and districts. Bring out the factors contributing to variations across the regions.

Impact

- Adoption rate to new technology-causes
- Modernization of farming practices- across the districts and divisions.
- Impact on cropping pattern.
- Impact on yield and productivity- across districts and divisions
- Impact on Income of the farmers- across divisions, districts & category of farmers.
- Marketing of agriculture produce.

Project impact in reforming the extension system

- Dissemination of technology
- Commodity based farmer interest groups.
- Decentralization, multi agency and flexible decision making and implementation.
- Farmer to farmer extension.
- Research-Extension-Farmer linkages.
- Training & capacity building of farmers.
- Capacity building of human Resources

Efficiency/Output

- Effectiveness of various committees
- Support of SAMETI & KVK
- Performance of Farmers' groups & Food security groups.
- Exposure visits and awareness generated
- Number of Women/SC/ST/OBC farmers benefitted
- Achievement of physical and financial targets
- Awards, Success stories & Best Practices.

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Inputs- Norms and their Adequacy

- Preparation of the Action Plans.
- Establishment of the committees.
- Convergence across the Departments.
- Information and communication strategies.
- Capacity building and human resource development.
- Resource allocation for NGOs, ST/SC/Women farmers and for beneficiary oriented activities.

Process/ implementation

- Review of implementation process and time lines.
- Farmers' groups formed across the sectors.
- Training programmes and Exposure visits- Review of low performing districts
- Participation of NGOs.
- Involvement of different stakeholders
- Performance of SAMETIs.

Give Suggestions for overall improvement of the scheme.

10. Evaluation Methodology and Sampling:

- a. The field work should cover all the districts of Revenue Divisions
- b. At least one taluk should be selected by *simple random sampling* method as sample taluk in each district. The sample will thus comprise of at least 14 taluks and each district will be represented. Simple Random Sampling without replacement is adopted. The talukas covered in earlier studies are not be included in the sample. The list of Sample talukas is given in Annexure-2.
- c. In the selected taluks, at least one sub component each from out of State level activities, District level activities and all taluk level activities (given in the cafeteria of activities as per Annexure to the ToR) should be covered for field visits, personal interviews and focused group discussions. It should be ensured that in the sample, no State and District level activity should go unevaluated i.e.

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- a State or District level activity should have been evaluated in at least one of the taluks forming the sample.
- d. All the predominant farming systems in the district should be covered.
 - e. One of the villages adjacent to the selected taluk in each of the selected districts where none of the scheme activities have been implemented to be selected as a control village.
 - f. The analysis to be made at division level and also in a comparative framework. A State level analysis to be presented by combining the two reports.
 - g. FGDs to be conducted to know farmers requirements for inclusion in training programmes and other activities.
 - h. Case Studies/ best practices if any to be included in the analysis.
 - i. Simple statistical techniques to be used for analysis.

1. Deliverables time Schedule:

An inception report containing a list of documents reviewed, persons contacted/consulted, list of sampling details, proposed data collection, evaluation questions and sub questions and processing methods should be submitted.

The State department of Agriculture will assist the evaluator in obtaining requisite information from the offices concerned in the State.

2. Duration and time schedule for the study:

The total duration of the concurrent evaluation study is about 9 months time.

- a. Draft Monitoring and Evaluation report should be delivered with adequate time to allow the agriculture department for consultation on findings and recommendations.
- b. Quarterly monitoring report (QMR) for each quarter should be submitted within one month of the end of the quarter, during a total work period of **9 months**.

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- c. Final report should contain front matter, programme description, evaluation purpose, methodology, findings, executive summary, recommendations and related Annexures.
- d. A meeting with presentation of the key findings at each level before proceeding to the next level shall be organized and any clarification/changes in methodology followed by ECO is made as per the requirement of the client.
- e. One interim draft report should be submitted by 31st December 2019.
- f. Finalization of draft report should be done by 31st January 2020.
- g. Final Draft report to be presented before 20th February 2020.
- h. Final report to be submitted before the end of March 2020.
- i. As ATMA is being implemented in convergence with all the Departments, the report should acknowledge the contributions of all ATMA staff.

13. Qualities Expected from the Evaluation Report :

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

- a) By the very look of the evaluation report it should be evident that the study is that of Agriculture department of the Government of Karnataka, and Karnataka Evaluation Authority (KEA) which has been done by the Consultant. It should not intend to convey that the study was the initiative and work of the Consultant, merely financed by the Agriculture department of the Government of Karnataka and/or Karnataka Evaluation Authority (KEA).
- b) Evaluation is a serious professional task and its presentation should exhibit it accordingly. Please refrain from using glossy, super smooth paper for the entire volume overloaded with photographs, graphics and data in multicolor fancy fonts and styles.

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- c) The results should first correspond to the ToR. In the results chapter, each question of the ToR should be answered adequately in a proper and readable form. An overall analysis should follow to draw the final conclusions.
- d) The Recommendations should be specific and based on evidence.

14. 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 (Horticulture & Sericulture) 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.

Chapter-I Introduction and Study design

- 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.
- Log Frame theory/ Theory of change
- Objectives and performance of the program - This section includes the

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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 of the target group, aim of the program, the programme guidelines and method of selection of beneficiaries and the physical and financial achievements.

Chapter –II Review of literature and Evaluation Methodology

- Review of past evaluation reports and their findings- Theoretical background.
- Evaluation Methodology - This should include research design, hypotheses for testing, evaluation matrix sample design and size, Methodology for data collection and analysis- questionnaire design and pilot test, data analysis.
- Limitations/constraints in the evaluation study.

Chapter III - Findings and discussion

- Tables and figures are to be used to present results in summary and/or graph format to add clarity to the presentation. In addition to simply presenting the results in a straightforward manner, the author also has to provide the readers with his/her interpretation of the results, implications of the findings, conclusions. Each result is discussed in terms of the original hypothesis to which it relates and in terms of its agreement or disagreement with results obtained by other researchers in similar/related studies.
- A detail analysis of Case Studies, Best Practices and Focus Group Discussions

Chapter IV Summary and Conclusions

Chapter V- Recommendations – Recommendations to be evidence based- short term for mid course corrections & long term for change in program design/ policy change.

Annexure

- a. Sanctioned Terms of Reference of the study.
- b. Survey tools and questionnaires
- c. Place, date and number of persons covered by Focus Group Discussion (if applicable).
- d. Table showing details of major deviations, non-conformities, digressions of the program.

15. Cost and schedule of Budget releases:

Output based budget release will be as follows-

- a. 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.
- b. 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.
- c. The **Third and final installment** 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 to the final report.

Tax will be deducted from each payment as per rates in force. In addition, the evaluator is expected to pay statutory taxes at their end.

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16. Expert team to carry out the study

Consultants should have a Team and has to provide details of evaluation team members having technical qualifications/capability as below-

Sl. No.	Subject Experts Requirements	Subject Experts Requirements	Educational Qualification
1.	Principal Investigator	A first Class Post Graduate in Agriculture/Rural Development / Social work/Ph.D in the subject preferable.	05 years of experience in field. Knowledge of agricultural extension programme and rural development is essential.
2.	1 st Core team member	A First class post graduate degree in Social Science.	03 years of experience with adequate knowledge of Agriculture and Rural development technology.
3.	2 nd Core team member	Post Graduate in Statistics/Economics/ MCA with knowledge of Statistical analysis	3 years experience in data analysis in the field of social sector.
4	3 rd Core Team Member	Expert in Translation (English to Kannada)	M.A in English/Kannada with expertise in translation

And in such numbers that the evaluation is completed within the scheduled time prescribed by the ToR. Consultants not having these number and other kind of personnel will not be considered as competent for evaluation.

17. Providing oversight:

Department of agriculture will provide the funds earmarked for evaluation. Any additional requirement will be met through funding by Karnataka Evaluation Authority. The dept. will monitor the progress of the study in the field.

Karnataka Evaluation Authority
44th Technical Committee Meeting on 17th July 2019

18. **Contact persons:**

- a. N. Basavaraj, State Co-ordinator - ATMA(9986804933), Department of Agriculture, Sheshadri Road, Bangalore-1
- b. M S Diwakar Add. Dir. (SRD) of Agriculture - (8277929810) Department of Agriculture, Sheshadri Road, Bangalore-1
- c. Consultant (Evaluation), Karnataka Evaluation Authority-9342331301

The entire process of evaluation shall be subject to and conform to the letter and spirit of the contents of the government of Karnataka order no. PD/8/EVN(2)/2011 dated 11th July 2011 and orders made there under.

The Terms of Reference were approved by the Technical Committee of KEA in its 44th Meeting held on 17th July 2019.


Chief Evaluation Officer
Karnataka Evaluation Authority


Prepared by:
Dr. Chaya Degaonkar
(Consultant Evaluation)

BENGALURU DIVISION		
SL.NO.	DISTRICTS	SAMPLE
1	Bengaluru Urban	Bengaluru North
2	Chikkaballapur	Chikkaballapur
3	Chitradurga	Holkere
4	Davanagere	Davanagere
5	Kolar	Bangarapete
6	Ramanagara	Ramanagara
7	Shimoga	Shivamogga
8	Tumkuru	Koratagere
KALABURAGI DIVISION		
1	Bellari	Hospet
2	Bidar	Bhalki
3	Kalaburagi	Alanda
4	Koppala	Yelbarga
5	Raichur	Raichur
6	Yadgir district	Shahpura

BELAGAVI DIVISION		
SL.NO.	DISTRICTS	SAMPLE
1	Bagalkote	Bagalkote
2	Belagavi	Chikodi
3	Bijapur	Sindgi
4	Dharwad	Dharwad
5	Gadaga	Gadaga
6	Haveri	Ranibennur
7	Uttara Kannada	Bhatkal
MYSURU DIVISION		
1	Chamarajanagar	Chamarajnagar
2	Chikmagalur	Kadur
3	Dakshina Kannada	Mangalore
4	Hassan	Sakleshpura
5	Kodagu	Virajpet
6	Mandya	Maddur
7	Mysuru	Nanjanagudu
8	Udupi	Karkala

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA)
Scheme in Karnataka State during 2019-20

Annexure-2- List of cafeteria of activities

CAFETERIA OF ACTIVITIES UNDER ATMA

State Level Activities

1. Monitoring and Evaluation
2. Training at SAMETIs'
3. Exposure visits of extension functionaries
4. Organization of State level exhibitions
5. Participation in Krishi expos & Regional fairs
6. Awards for best performing District
7. Farmer awards

District Level activities

1. Trainings.
2. Exposure visits.
3. Organizing demonstrations.
4. Mobilization of farmers groups.
5. Rewards and Incentives to Farmers groups.
6. Farmer awards.
7. District level exhibitions, Kisan melas etc.
8. Information Dissemination through social media, printed leaflets and local advertisements.
9. Development of technology packages in digital form.
10. Farmer Scientist interactions.
11. Joint Visits by Scientist and Extension personnel.
12. Organisation of Kisan Goshties
13. Assessment, Refinement, Validation and adoption of frontline technologies
14. Innovative technologies

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA)
Scheme in Karnataka State during 2019-20

Annexure-3 Templates of all data collection instruments

ANNEXURE 3.1 SCHEDULE FOR STATE LEVEL ACTIVITIES

CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA STATE DURING 2019-20

Sponsored by
Karnataka Evaluation Authority,
 Government of Karnataka,
 M.S. Building, Bangalore
 Ph: (080) 22353938,
 Web: kea.karnataka.gov.in



Conducted by
**Centre for Symbiosis of
 Technology Environment &
 management (STEM), Bangalore**
 Ph: (080) 25522664, 25533615
 Web: www.stemgroup.org



SCHEDULE FOR STATE LEVEL ACTIVITIES

Year : 2019-20

Date:

Name of the Respondent	
Designation	
Qualification	
Contact Number	

1. Meeting of IDWG :

Date of Meeting	Important decision taken	Remarks

2. State Extension Work Plan (SEWP) :

A. Whether District action plan received from all Districts and consolidated to make SEWP?

B. Approval of SEWP by SLSC

Date of meeting	Approved outlay of SEWP	Remarks

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

3. Flow of Funds :			
Date of receipt of fund from GOI	Amount	Date of release to	
		ATMA GB	SAMETI

4. Whether the Monthly & Quarterly Progress Report data uploaded by ATMA GB's have been validated by SNO to GOI

5 A. Audit of Accounts by Chartered Accountant

B. Submission of Consolidated Statement of Accounts for 2018-19 to GOI.

Name of Interviewer	
Signature of Interviewer	

ANNEXURE 3.2 SCHEDULE FOR DISTRICT ACTIVITIES

**CONCURRENT MONITORING & EVALUATION OF AGRICULTURE
TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA
STATE DURING 2019-20**

Sponsored by
Karnataka Evaluation Authority,
Government of Karnataka,
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Web: kea.karnataka.gov.in



Conducted by
Centre for Symbiosis of
Technology Environment &
management (STEM), Bangalore
Ph: (080) 25522664, 25533615
Web: www.stemgroup.org



SCHEDULE FOR DISTRICT ACTIVITIES

Year : 2019-20

Name of District		Date	
Name of the Respondent			
Designation			
Qualification			
Contact Number			

1. Strategic Research Extension Plan (SREP) :

First SREP Year	Years in which revised	2019-20 status	Remarks

2. Annual Action Plans & Approvals:

Sl. No	Taluk s	AAP (Financial)	Prepared		Does the AAP meet the requirement of Taluk	Are they prepared in time & the date of submission to PD	DAP submitted to SNO (Financial)	DAP approved by SLSC	Reasons for delay
			Village Level	Taluk Level					
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									

3. Resources allocation to different activities as per guidelines:

Sl. No	Activity	Prescribed allocation as per guidelines (%)	Actual Allocation	
			Amount	Percentage (%)
1	Farmer oriented activities	55		
2	Farm information dissemination	10		

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

3	Technology refinement, validation- -----	7	
4	Administration	28	
Total			

4. Timeline – Implementation Process:

ATMA Activities When started	Started Before or after approval of AAP	Timeline of activities-implemented process

5. Social Mobilization of Farmers Groups :

Sl.No	Taluks	Group formed			Training given			Seed money given			Remarks
		FIG	CIG	FSG	FIG	CIG	FSG	FIG	CIG	FSG	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

5A Farmers groups formed across sectors

Sl. No	Sector	Groups formed	Trainings given	Seed money	Remarks

5B. How ATMA helped in Mobilization of farmers groups?

5C. Formed as per Norms Prescribed?

5D. How farmers groups are involved in ATMA activities**5E. How many are functioning****6. Sector wise Category of Farmers Benefited:**

Sectors	Farmers benefitted									
	Gen	SC	ST	OBC	Min	SF	MF	LF	Women	Total
Agri										
Horti										
Seri										
AH										
Fisheries										
Forestry										
Total										

7. Involvement of NGOs in Planning Process and Implementation:

Sl. No	Name of NGO	Activities assigned or involved	Financial allocation	Expenditure	Progress up to 31-03-2020
1					
2					
3					
4					
5					

7a) Agencies involved in decentralization and flexible decision making:**7b) Whether Performing as per guidelines?****7c) How do you assess the participation of NGOs in implementation?****7d) Resource allocation to SC/ST/Women**

Sl. No	Sector	Resource allocation			Resource Spent			Remarks
		SC	ST	Women	SC	ST	Women	

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

8. Assessment of Functioning of Committees and Institutions:

A) ATMA Governing Body

Month & year of formation	Total members	No. of non-official members	Number of members			Date of meetings during the year 2019-20			Established as per guidelines?
			SC	ST	Women	I	II	III	

B) District Farmers Advisory Committee (DFAC)

Month & year of formation	Total members	Category of members			Meeting Conducted			Number of members		
		Chairman of BFACS	KVK Co ordinator	State/District level award winning farmers	I	II	III	SC	ST	Women

8B.1) Established as per guidelines?

C) Krishi Vignana Kendra (KVK)

Name of KVK	Involvement in						Remarks
	ATMA activities	Attending meetings	Farmer scientific interaction	Field days	Kisan Gosties	Farm schools	

8C.1 Whether KVKS has performed its duties assigned under ATMA?

D) State Agriculture University (SAU)

Name of SAU	Activities involved	Remarks

E) Activities of allied sectors

Sl.No	Allied Sectors	Involvement in ATMA Activities & Extent of Involvement						ATMA GB Meetings
		SREP	AAP	Farmer Oriented Activities	FARM Information Dissemination	R-E-F linkages	ITD Activities	
1	Horti							
2	Seri							
3	AH							
4	Fishery							
5	Forestry							

Allocation as per AAP	Funds allocated up to 31-03-2020	Funds spent	Balance	Remarks

8E.1) If some sectors not formed groups, reasons?

8E.2) Whether involvement of different stakeholders is as per guidelines?

9. Flow of Funds:

Balance of 2018-19	Date of Release by SNO*	Amount (Rs)	Date of Release By JDA/PD			Remarks
			To ADAS'	Line departments	Amounts	

***State Nodal Officer**

10. Success Stories:

Sector	Topic	From which taluks	Sent to GOI	Published at District level	Distributed to farmers

11. Awards to Farmers:

Date	Sector	Level			Achievement	Amount	Remarks
		State	District	Taluk			

12. Kisan Goshti / Field Days:

Sl. No.	Taluks	No. of FD	No. of KG	Topic	Scientist
1					
2					
3					
4					

12 (A) Best Practices followed in ATMA

12B. Best Practices documented by other departments

12C. Have you any case studies documented? If documented please provide the details

12d) Farm Schools			
How many farm schools are formed	How many farmers involved		Subject
	Donor farmers	Trainers	

13. Farm Information Dissemination:

A. Information strategies used (Modes of dissemination of technology): -

B. District Level Exhibition

Date	Sector	Venue	Topic	Expenditure	Remarks

C. Leaflets and Advertisements Made:

Leaflets			Advertisements			Remarks
Taluks	Topic	No	Topic	No	Where	

Low-Cost Publication		
Topic	No	Remarks

D. Development of Technology Packages:

E. Are the strategies appropriate to the Taluks/Districts?

F. Have they reached the farmers?

G. What means of technology dissemination farmers prefer?

14. Agri Tech Refinements Validation & Adaption:					
A. Farmer- Scientist Interaction:					
Date	Sector	Topic	Venue	Scientist participated	Number of farmers participated
B. Designated expert support from KVK:					
C. Joint Visits by scientist and extension workers (Number & Details)					
D. Assessment, Refinement, Validation and Adoption of frontline technologies:					
Name of KVKs involved	Issues/trials allotted	Topic	Remarks		

15. Whether the CMPR Is Being Uploaded by ATMA In The Web Based Interface By 5th Of Following Months?			
16. Whether Individual Data of Farmers and Pictures Under Trainings and EVs Is Being Entered Using the Prescribed Website?			
17. Establishment:			
Name of the Official	TA	DA	Total
i) Accountant cum clerk			
ii) Computer programmer			

18. Project Impacts:
A) Introduction of new crop varieties, new farm activities, adoption of new sustainable technologies etc. and causes
1) Production technologies generally followed
2) Production technologies followed during 2018-19
3) How many have adopted technologies like Drip Irrigation, Sprinkler Irrigation, Fertigation, Mechanical harvesting, Mechanical threshing etc.?
4) How technologies at 3 above helped to increase income of farmers?
5) What factors influenced the use of these technologies?
6) How many wish to continue these technologies?

7) What role did ATMA play in adoption of these technologies?

8) Causes for Non adoption?

9) These technologies are from ATMA or some other schemes?

B) Modernization of farming practices across Districts & divisions

C). Impact on cropping pattern

1) General Cropping pattern of the area

2) Cropping Pattern followed during previous to 2019-20

3) Cropping pattern during 2019-20?

4) Was the cropping pattern changed during 2019-20?

5) What influenced the change?

6) What role did ATMA play in change of cropping pattern?

D). Impact on yield & Productivity

1) Yield per Acre of crops during 2018-19

2) Yield/Acre during 2019-20

3) Is there an increase/decrease in yield/acre of crops during 2019-20?

4) Factors for Increase/Decrease during 2019-20

5) Is ATMA Intervention, a factor for increase or decrease

6) Cost of cultivation of major crops?

E). Impact on Income of farmers

1) Average income of farmers during 2018-19

2) Average income of farmers during 2019-20

3) Is there an increase in income of farmers during 2019-20?

4) What influences the increase?

5) What is the influences of ATMA in increase of income of farmers?

6) Whether marketing of agricultural produce affect the income of farmers?

F) Assistance in marketing agricultural Produce & impact

- 1) What % of agricultural produces marketed?
- 2) Where do farmers market their produce?
- 3) What price did the farmers get? Did it add to the increased income?
- 4) Whether ATMA facilitated & educated the farmers in marketing their produce
- 5) Whether the produce marketed raw? Or was it processed marketed?

G) Convergence of activities in allied sectors

- 1) Departments involved in convergence
- 2) What sort of convergence?
- 3) If no convergence, reasons?
- 4) Officers involved in bringing convergence among different departments.

H) Farming Practices

- 1) Farming Practices followed generally?
- 2) Farming Practices during 2019-20
- 3) How many practiced Vermicompost, IPM, INM, Bio Fertilizers, Rotation Cropping, IFS, etc.
- 4) Whether ATMA facilitated to adopt these technologies?

19. Audit of ATMA accounts for 2018-19 and sending to head office:

Name of the auditor	When audited	Date of sending to head office

Signature of Respondent	
Name of Interviewer	
Signature Of Interviewer	

ANNEXURE 3.3 SCHEDULE FOR TALUKA ACTIVITIES

CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA STATE DURING 2019-20

Sponsored by
Karnataka Evaluation Authority,
Government of Karnataka,
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Web: kea.karnataka.gov.in



Conducted by
Centre for Symbiosis of
Technology Environment &
management (STEM), Bangalore
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Web: www.stemgroup.org



SCHEDULE FOR TALUKA ACTIVITIES	Year: 2019-20
---------------------------------------	----------------------

Name of Sample Taluk		Date
Name of the Respondent		
Designation		
Qualification		
Contact Number		

1. Involvement in activities & extent of involvements

Sl.No	Allied Sectors	Involvement in ATMA Activities & Extent of Involvement					
		SREP	AAP	Farmer Oriented Activities	FARM Information Dissemination	R-E-F linkages	ITD Activities
1	Horti						
2	Seri						
3	AH						
4	Fishery						
5	Forestry						
Allocation as per AAP		Funds allocated up to 31-03-2020	Funds spent	Balance			Remarks

1A. Annual Action Plans & Approvals	
Date of Submission to PD	Date receipt of approved AAP from PD

2. Social Mobilization Groups Formed:

		Type of farmer group						
Type of farmers group	Number formed	Category of farmers						
		Gen	SC	ST	OBC	Mino	Women	Total
FIG								

CIG									
FSG									

2A. Farmers group formed across the sectors

Sl. No	Sector	Farmers group formed			Training given			Seed Money			Remarks
		FIG	CIG	FSG	FIG	CIG	FSG	FIG	CIG	FSG	

2B. How ATMA helped in Mobilization of farmers groups?**2C. Formed as per Norms Prescribed?****2D. How farmers groups are involved in ATMA activities****2E. How many are functioning****3. Timeline – Implementation Process:**

ATMA Activities When started	Started Before or after approval of AAP	Timeline of activities-implemented process

4. Resource Allocation for Activities:

Sl. No	Activities	As per guidelines	Actual Allocation	
			Amount	Percentage (%)
1.	Farmer oriented activities	55%		
2	Farm information dissemination	10%		
3	Technology refinement validation.....	9%		
4	Administration	28%		

5. Sector wise Category of Farmers Benefited:

Sectors	Farmers benefitted									
	Gen	SC	ST	OBC	Min	SF	MF	LF	Women	Total
Agri										
Horti										
Seri										
AH										
Fisheries										
Forestry										
Total										

6. Involvement of NGOs in Planning Process and Implementation:					
Sl. No	Name of NGO	Activities assigned or involved	Financial allocation	Expenditure	Progress up to 31-03-2020
1					
2					
3					
4					
5					

6a) Agencies involved in decentralization and flexible decision making:

6b) Whether performing as per guidelines?

6c) How do you assess the participation of NGOs in implementation?

6d) Resource allocation to SC/ST/Women								
Sl. No	Sector	Resource allocation			Resource Spent			Remarks
		SC	ST	Women	SC	ST	Women	

7. Assessment of Functioning of Committees:

A. Taluk level ATMA implementation committee (TLAIC)

Number of meetings conducted	Officers Attended						
	Horticulture	Sericulture	Animal Husbandry	Fisheries	Forest	KVK	TPS President

B. Block Farmers Advisory Committee (BFAC)

When formed	Total Members	No. of progressive farmers			Other Member			Farm Women		
		Agriculture	Horticulture	Animal Husbandry	Other departments	Chairman TPS	Member of ZP	Agri	Hor	AH

B.1) Number of meetings conducted: -

B.2) Number of members: -		
SC	ST	Women

B.3) Established as per guidelines?

8. Release of Funds to implementing Departments:				
Date of receipt from DLASC	Amount	Date of release to line department	Amount	Expenditure

9. Audit of ATMA Account of 2018-19 by Chartered Accountant:		
When audited	Auditor	Date of submitting to DLASC

10 Success Stories Under Different ATMA Activities:						
Sector	Name of SS	Published	Where	When	Send to DLASC/HO	Distributed to farmers

11. Awards:							
Date	Level	Sector	Name	Village	Category	Age	Achievement

12. Project Impacts:

A) Introduction of new crop varieties, new farm activities, adoption of new sustainable technologies etc. and causes

10) Production technologies generally followed

11) Production technologies followed during 2018-19

12) How many have adopted technologies like Drip Irrigation, Sprinkler Irrigation, Fertigation, Mechanical harvesting, Mechanical threshing etc.?

13) How technologies at 3 above helped to increase income of farmers?

14) What factors influenced the use of these technologies?

15) How many wish to continue these technologies?

16) What role did ATMA play in adoption of these technologies?

17) Causes for Non adoption?

18) These technologies are from ATMA or some other schemes?

B) Modernization of farming practices across Districts & divisions

C). Impact on cropping pattern

7) General Cropping pattern of the area

8) Cropping Pattern followed during previous to 2019-20

9) Cropping pattern during 2019-20?

10) Was the cropping pattern changed during 2019-20?

11) What influenced the change?

12) What role did ATMA play in change of cropping pattern?

D). Impact on yield & Productivity

7) Yield per Acre of crops during 2018-19

8) Yield/Acre during 2019-20

9) Is there an increase/decrease in yield/acre of crops during 2019-20?

10) Factors for Increase/Decrease during 2019-20

11) Is ATMA Intervention, a factor for increase or decrease

12) Cost of cultivation of major crops?

E). Impact on Income of farmers

- 7) Average income of farmers during 2018-19
- 8) Average income of farmers during 2019-20
- 9) Is there an increase in income of farmers during 2019-20?
- 10) What influences the increase?
- 11) What is the influences of ATMA in increase of income of farmers?
- 12) Whether marketing of agricultural produce affect the income of farmers?

F) Assistance in marketing agricultural Produce & impact

- 6) What % of agricultural produces marketed?
- 7) Where do farmers market their produce?
- 8) What price did the farmers get? Did it add to the increased income?
- 9) Whether ATMA facilitated & educated the farmers in marketing their produce
- 10) Whether the produce marketed raw? Or was it processed marketed?

G) Convergence of activities in allied sectors

- 5) Departments involved in convergence
- 6) What sort of convergence?
- 7) If no convergence, reasons?
- 8) Officers involved in bringing convergence among different departments.

H) Farming Practices

- 1) Farming Practices followed generally?
- 2) Farming Practices during 2019-20
- 3) How many practiced Vermicompost, IPM, INM, Bio Fertilizers, Rotation Cropping, IFS, etc.
- 5) Whether ATMA facilitated to adopt these technologies?

13. Farm Information Dissemination

A. Number of Leaflets printed and distributed?
B. Number of advertisements made during 2019-20?
C. Number of Low-cost publications made during 2019-20?
D. Are the technologies appropriate to the Taluk?
E. have they reached the farmers?
F. What means of technology dissemination farmers prefer?

Signature of Respondent	
Name of Interviewer	
Signature of Interviewer	

ANNEXURE 3.4 SCHEDULE FOR DETAIL FIELD ACTIVITIES

**CONCURRENT MONITORING & EVALUATION OF AGRICULTURE
TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA
STATE DURING 2019-20**

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SCHEDULE FOR DETAIL FIELD ACTIVITIES

Year : 2019-20

Name of Taluk		Date	
Name of the Respondent			
Designation			
Qualification			
Contact Number			

A. 1) Training :**I. Interstate**

Sector	Date	Venue	Topic	Remarks

II. Within State

Sector	Date	Venue	Topic	Remarks

III. Within District

Sector	Date	Venue	Topic	Remarks

B. Whether trainings conducted at appropriate times?**C. Reasons for Low Performance?**

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

--

A-2) Exposure Visit:

I. Interstate

Sector	Date	Venue	Topic	Remarks

II. Within State

Sector	Date	Venue	Topic	Remarks

III. Within District

Sector	Date	Venue	Topic	Remarks

B. Whether exposure visits conducted at appropriate times?

C. Reasons for Low Performance?

d. Which exposure visits generated more awareness?

C) Demonstrations:

Sector	No	Crop/Topic	Variety	Month of Start	Month of Ending	Result	Remarks

D) Farmer Groups:

Type of	Name	Village	Date of	Members

Group			Starting							
				Gen	SC	ST	OBC	Min	Women	Total
No. of meetings	No. of trainings	Seed money		Purpose			Month			

E) Field Day/Kisan Goshties:

Sector	Date	Place	Topic	Scientist participated	Remarks

Signature of Respondent	
Name of Interviewer	
Signature of Interviewer	

ANNEXURE 3.5 SCHEDULE FOR SAMETI ACTIVITIES

CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA STATE DURING 2019-20

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SCHEDULE FOR SAMETI ACTIVITIES

Year: 2019-20

Name of SAMETI		Date	
Name of the Respondent			
Designation			
Qualification			
Contact Number			

1. Providing Capacity Building Support to Extension Functionaries from Public, Private and NGO Sectors:

Date of training	Topic	Functionaries attended Number				Remarks
		ATMA	Other Sectors			
			H	S	AH	

2. Providing Consultancy in the areas of Planning, Appraisal, Implementation, Monitoring and Evaluation Etc.

District	Planning Appraisal	Implementation	M&E	SREP	Remarks

3. Curriculum of different sectors

Sl. No	Sector	Topics	When finalized

4. Need Based training programme to middle level functionaries:							
Date	Training Topic	Level of Participants	Number				Remarks
			ATMA	Other Sectors			
				H	S	AH	

5. Organizing Annual Workshop:			
Date	Participated Sectors	No. of participants	Remarks

6. Co-ordination with MANAGE in Organizing DAESI Programme:

7. State Level Exhibition:				
Date	Venue	Topic	No. of visitors	Remarks

8. Funds:				
Opening Balance	Receipt from SNO during 2019-20	Dates of receipts	Expenditure as on 31-3-2020	Remarks

9. Was the curriculum for the training developed before the training?

9A. Any other activities SAMETI is involved

10. Does the curriculum suit all the sectors/ATMA requirements?

11. Were the training conducted as per the curriculum time?

12. Time line of activities performed

Signature of Respondent	
Name of Interviewer	
Signature of Interviewer	

ANNEXURE 3.6 SCHEDULE FOR BENEFICIARY FARMERS

CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA STATE DURING 2019-20

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SCHEDULE FOR BENEFICIARY FARMERS

Year: 2019-20

Date:

District:

Taluk:

Village:

A. General

1	Serial Number			
2	Beneficiary Details			
a	Name			
b	Mobile No			
c	Gender	1. Male	2. Female	
d	Age			
e	caste	a) SC/ST	b) Minority	
		c) OBC	d) General	
3	Education qualification	a) Illiterate	b) Literate	c) Higher Primary School
		d) High School	e) Intermediate	f) Graduate & Above Level
	Family type	a) Joint Family		b.) Nuclear Family
	Family size	a) Adults		b) Children
	Number of adults depending on agri. and allied activities			
	Land Holding Details			
	Total extent (Acres) _____	Rainfed: _____ (Acres)	Irrigated: ____ (Acres)	
	Irrigated Source of water	a) Open well,		b) Nala/river
		c) Tanks		d) Borewell,
		e) Canal		f) Others Specify _____

B. Process

Sl. No	Process	2019-20 (Yes/No)	
1	Participation in ATMA activities		
1a	Exposure visit		If yes Purpose: -
1b	Training		If yes Purpose: -
1c	Demonstration		If yes Purpose: -
1d	Others if any specify		If yes Purpose: -
1e	Opinion about activities attended	a) Very Good	b) Good
		c) Fair	d) Can't say
2	Cultivation details		
2a	Technology used before 2019-20		
2b	Technology used during 2019-20		
2c	Have you adopted these technologies	a. Drip irrigation	b. Sprinkler irrigation
		c. Fertigation	d. Mechanized harvest
		e. Mechanized threshing	f. Others (Specify)_____
2d	Which year did you adopt these technologies		
2e	How these technologies helped you?		
2f	Factors influenced to use these technologies		
2g	Continue to use these technologies?	a) Yes	b) No
2h	Role of ATMA in use of these technologies		
2i	From which department you got these technologies		
3	Farming Practices		
3a	Farming practices generally used		
3b	Farming practices used during 2019-20		
3c	Are you using these practices	1. Vermi compost,	2. IPM
		3. INM	4. Biofertilizers
		5. Rotation of crops	6. IFS
		7. Others (Specify)_____	
3d	Would you like to continue to these practices	a) yes	b) No
3d	Whether ATMA facilitated to use these practices	a) yes	b) No

C. Output

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Details of Cropping pattern:

Sl. No	Category	Rainfed		Irrigated	
		2018-19	2019-20	2018-19	2019-20
A	Early Kharif				
	Crop Grown				
	Area (in acres)				
	Yield (Q./A.)				
B	Kharif				
	Crop Grown				
	Area (in acres)				
	Yield (Q./A.)				
C	Rabi				
	Crop Grown				
	Area (in acres)				
	Yield (Q./A.)				
D	Summer				
	Crop Grown				
	Area (in acres)				
	Yield (Q./A.)				
E	Annual Crops/Perennial Crops				
	Crop Grown				
	Area (in acres)				
	Yield (Q./A.)				
	Reasons for increase or decrease				

D. Outcome

Sl. No	Questions	2018-19	2019-20	
1	Sources of Income			
2	Household Annual Income			
3	Annual Agriculture Income			
4	Does ATMA intervention increased income		a) yes	b) No
5	Reason for increase or decrease of income			
6	Whether marketing of agriculture produce influence the income increase		a) yes	b) No
7	Has ATMA improved your Socio-economic condition?		a) Extremely c) Some what	b) Poor d) Not at all
8	Did ATMA interventions helped to employ your family labour better		a) yes	b) No

8a	yes explain		
9 Marketing of Agriculture produce			
9a	Did you market your surplus agricultural produce	a) yes	b) No
9b	Percentage of agriculture produce marketed		
9c	Where marketed		
9d	Which crop marketed		
9e	Price got		
9f	Access to market		
9g	ATMA facilitated you in marketing aspects	a) yes	b) No
9h	If yes how		
9i	Did ATMA helped to minimize post-harvest losses	a) yes	b) No
9j	If yes how		

E. Opinion of the farmers

1	Awareness about ATMA activities	a) Good	
		b) Average	
		c) Poor	
2	Which activities you are more aware		
3	ATMA interventions helped you in proper use of resources	a) yes	b) No
4	If yes What resources you used better		

F. Suggestions from farmers

1.	
2.	
3.	
Date of Interview	
Name of Interviewer	
Signature of Interviewer	

**ANNEXURE 3.7 SCHEDULE FOR DEMONSTRATIONS-INCOME GENERATION & FARM SCHOOLS
CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA)
SCHEME IN KARNATAKA STATE DURING 2019-20**

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SCHEDULE FOR DEMONSTRATIONS-INCOME GENERATION & FARM SCHOOLS **Year: 2019-20**

District: - **Taluk: -** **Date: -**

Sl. No	Name of farmer	Village	Area in Acres	Rain fed/Irrigated	Category	Crop	Variety/Topic	Date of sowing	Critical Inputs given by ATMA	Cost of cultivation	Date of Harvest	Benchmark yield Q/A	Demo Yield Q/A	Rate per Qtl.	Economic return	Net Income (Rs)
1																
2																
3																
4																
5																

ANNEXURE 3.8 SCHEDULE FOR CONTROL VILLAGE

CONCURRENT MONITORING & EVALUATION OF AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA) SCHEME IN KARNATAKA STATE DURING 2019-20

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SCHEDULE FOR CONTROL VILLAGE

District: -

Taluk: -

Year: 2019-20

Village: -

Sl.No	Questions	1	2	3	4	5
1	Name of the Farmer					
2	Father's Name					
3	Age					
4	Education					
5	Main Occupation					
6	Other Occupation					
7	Crops					
7a	Pre- Monsoon					
7b	Monsoon					
7c	Post- Monsoon					
7d	Summer					
8	Rainfed/Irrigated					
9	Yield Per Acre					
10	From which source you get agriculture related					

	information/supports?					
11	Which are the programmes you are aware in such department?					
12	Have you attended any Programme? (Specify)					
13	Have you received any benefits? (Specify)					
14	Expectations from departmental programs					
15	Opinion of the farmer					

Date of Interview	
Name of Interviewer	
Signature of Interviewer	

ANNEXURE 3.9 Checklist for Taluk level Focus Group Discussions (FGD)

- ✓ Which are the activities they are participating in ATMA? Involvement in AAP, SREP & cafeteria of activities?
- ✓ What are the activities implemented under the ATMA during the year? Have they recommended any achiever farmer for award from their sector?
- ✓ How is the participation of sector officials in SAMETI trainings & other activities?
- ✓ Suggestion for improvement or modifications?
- ✓ Problems faced during the planning & Implementation.

Checklist for village level beneficiary & non-beneficiary Focus Group Discussions (FGD)

- ✓ **Awareness:** -How the beneficiaries came to know about the scheme? What percentage of non-beneficiary farmers aware of the scheme? How many are not aware of the scheme?
- ✓ **Source of information:** How did the farmers come to know about the scheme? What is the most suitable means of communication that reaches the farmers better than the others?
- ✓ What are the activities that needs to be promoted by ATMA?
- ✓ How have you utilized the knowledge gained from ATMA activities?
- ✓ How do you inspire/motivate the other farmers?
- ✓ Awareness of the schemes and their publicity in the village?
- ✓ ATMA activities participated by the farmers?

Annexure-4- The District wise expenditure in the major group of activities

ALLOCATION OF RESOURCES TO DIFFERENT GROUPS OF ACTIVITIES AND ACHIEVEMENTS IN MAJOR GROUP OF ACTIVITIES
Bengaluru Revenue Division

	Bengaluru RD																												
	Bengaluru Urban					Chikkaballapur					Chitradurga					Davangere					Kolar								
	1		2			3			4			5			6			7			8			9					
AAP	% of total	achievement ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total		
1 FOA	28.34	22	28.17	22	28.34	19	25.91	19	28.34	20	25.88	22	23.93	19	22.5	23.93	21	23.93	17	25.33	21	25.33	17	23.93	19	22.5	23.93	21	25.33
2 FID	6.5	5	2.65	2	6.5	4	3.51	4	6.5	5	6.83	6	6	5	4.49	6	4	6	5	3.52	3	3.52	5	6	5	4.49	6	4	3.52
3 ATRV	5.3	4	1.29	1	5.3	3	2.74	3	5.3	4	2.17	2	5	4	2.12	5	2	5	3	2.12	2	2.12	5	5	4	2.12	2	2.12	
4 Admin Exp	7.4	6	3.59	3	7.4	5	6.21	5	7.4	6	1.32	1	7	5	3.67	7	4	7	4	2.71	4	2.71	7	7	5	3.67	4	2.71	
5 A JA	4	3	4.35	4	4	3	0	0	4	2	0.88	1	3.75	3	1.59	3	1	3.75	3	1.25	1	1.25	3	3	3	1.59	1	1.25	
6 B JTD	3	2	0.85	1	3	2	0.5	1	3	2	0.58	1	2.75	2	2.52	2	2	2.75	2	1	1	1	2	2	2	2.52	2	1	
7 MPC	75.16	58	87.04	67	98.52	64	92.36	68	85.17	61	78.94	67	77.83	62	71.74	77.83	66	94.52	66	89.72	70	89.72	66	94.52	62	71.74	66	89.72	
7 AAP/TE	129.69	0	129.54	0	153.06	0	135.23	0	139.71	0	118.6	0	126.36	0	109.97	126.36	0	143.05	0	127.64	0	127.64	0	143.05	0	109.97	0	127.64	

	Bengaluru RD																										
	Ramanagara					Shivamogga					Tumkuru					Total											
	6		7			8			9			10			11			12			13						
AAP	% of total	achievement ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total	AAP	% of total	Achievem ent	% of total
1 FOA	19.66	18	17.53	20	32.65	16	22.84	15	45.56	17	18.01	10	230.75	18	187.77	150	230.75	18	187.77	150	230.75	18	187.77	150	230.75	18	187.77
2 FID	5.5	5	5.12	5	7	3	0.79	1	8.5	3	4.79	2	52.5	4	44.09	27	52.5	4	44.09	27	52.5	4	44.09	27	52.5	4	44.09
3 ATRV	4.7	4	1.65	2	5.6	3	1.29	1	6.5	3	2.91	2	42.7	3	16.28	15	42.7	3	16.28	15	42.7	3	16.28	15	42.7	3	16.28
4 Admin Exp	6.6	6	0.96	1	7.8	4	2.01	1	9	3	2.77	2	59.6	5	23.24	19	59.6	5	23.24	19	59.6	5	23.24	19	59.6	5	23.24
5 A JA	3.5	3	0.49	1	4.25	2	2.39	1	5	2	1.5	1	32.25	3	12.45	10	32.25	3	12.45	10	32.25	3	12.45	10	32.25	3	12.45
6 B JTD	2.5	2	0.84	1	3.25	1	0.83	1	4	2	2.98	1	24.25	2	10.1	9	24.25	2	10.1	9	24.25	2	10.1	9	24.25	2	10.1
7 MPC	67.15	62	61.41	70	144.85	71	121.7	80	184.16	70	153.24	82	827.36	65	756.15	570	827.36	65	756.15	570	827.36	65	756.15	570	827.36	65	756.15
7 AAP/TE	109.68	0	88	0	205.39	0	133.04	0	262.12	0	187.2	0	1269.06	0	1050.79	0	1269.06	0	1050.79	0	1269.06	0	1050.79	0	1269.06	0	1050.79

Mysore Revenue Division

Mysuru RD																
C.R. Nagara			Chikkamagaluru				Dakshina Kannada			Hassan						
1			2				3			4						
AAP	% of total	achieve ment	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total			
1	19.72	19	18.75	22	32.65	19	22.12	16	24.03	22	19.73	23	36.95	18	33.46	19
2	5.5	5	3.11	4	9	5	5.17	4	8	6	3.3	4	9.5	5	4.68	3
3	4.7	6	1.78	2	5.7	2	2.09	2	5	4	1.75	2	5.9	2	5.46	3
4	6.6	6	3.98	5	7.8	5	1.83	1	7	6	2.32	3	8.2	4	3.92	3
5	3.5	4	2.56	3	4.25	2	0	0	3.75	4	1.25	1	4.5	2	1.75	1
6	2.5	2	0	0	3.25	1	0	0	2.75	2	0	0	3.5	1	0	0
7	6.48	58	53.75	63	114.81	66	104.27	76	61.14	56	57.2	66	142.18	68	123.8	71
7	104.9	0	85.46	0	175.35	0	137.18	0	109.67	0	87.24	0	208.73	0	174.74	0

Mysuru RD																	
Kodagu			Mandya				Mysuru			Udupi			Total				
5			6				7			8							
AAP	% of total	achieve ment	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total
1	15.42	16	10.45	14	35.97	20	32.65	18	33.4	19	15.42	21	22.44	38	212.81	19	196.26
2	7	7	3.08	4	7	4	7	4	4.9	3	7	10	4.95	8	60	5	35.11
3	4.4	5	0.85	1	5.6	3	5.6	3	5.6	3	4.4	6	1.28	2	41.2	4	21.23
4	6.2	6	3.2	4	7.8	4	7.8	4	5.77	3	6.2	7	1.17	2	57.6	5	24.75
5	3.25	3	0.5	1	4.25	2	4.25	2	0.25	0	3.25	4	0.22	0	26.46	2	8.52
6	2.25	2	0	1	3.25	2	3.25	2	0	1	2.25	2	0	2	213	2	0
7	59.8	61	55.05	75	118.14	65	121.9	67	124.42	71	36.44	50	28.49	48	714.48	63	671.63
7	96.33	0	73.83	77	178.69	0	182.03	0	173.19	95	72.97	0	59.65	82	1128.67	0	971.49

Kalaburgi Revenue Division

Kalaburagi RD													
Ballari				Bidar				Kalaburagi					
1				2				3					
	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	
1	FOA	36.95	21	23.32	20	24.03	16	21.9	18	32.69	18	19.72	15
2	FID	7.5	4	6.4	6	6	4	6	5	7	4	5.5	3
3	ATRV	5.9	3	2.27	2	5	3	1.9	16	5.6	3	4.7	2
4	Admin Exp	8.2	5	1.79	2	7	5	1.71	1	7.8	4	6.6	5
5	A)IA	4.5	3	4.68	4	3.75	3	3.75	3	4.25	2	3.5	1
6	B)TD	3.5	2	0.78	1	1.62	2	2.75	1	1.1	1	2.5	1
7	MPC	108.82	62	75.15	65	82.61	67	104.53	6	121.48	68	73.85	73

Kalaburagi RD																	
Koppal				Raichur				Yadagiri				Total					
4				5				6									
	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	AAP	% of total	achieve ment	% of total	
1	FOA	19.72	17	12.63	13	24.03	14	14.05	10	15.42	16	15.44	16	152.8	17	114.07	15
2	FID	5.5	5	5	5	6	4	6	4	5	5	5	5	37	4	33.36	5
3	ATRV	4.7	4	1.87	2	5	3	3.7	3	4.4	4	1.66	2	30.6	3	15.07	2
4	Admin Exp	6.6	6	2.68	3	7	4	0.28	0	6.2	6	4.6	5	42.8	5	18.29	3
5	A)IA	3.5	3	1	1	3.75	2	0	0	3.25	3	3.25	4	23	3	15.18	2
6	B)TD	2.5	2	71.21	1	2.75	2	0.25	0	2.25	2	2.25	2	17	2	7.65	1
7	MPC	73.85	63	95.39	75	127.89	71	117.25	83	63.14	64	61.19	66	599.71	66	554.99	12

Belagavi Revenue Division

Belagavi RD															
Bagalkot			Belagavi				Dharwad			Gadag					
1			2				3			4					
AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total
1	28.34	22	26.41	26	45.56	22	24	24.03	23	18.44	19	24.03	25	23.98	26
2	6.5	5	4.3	4	8.5	4	4	6	6	4.05	4	6	6	5.62	6
3	5.3	4	2.05	2	5.9	3	4	5	5	2.83	3	5	5	4.48	5
4	7.4	6	1.77	2	9	4	4	7	7	3.74	4	7	7	3.38	4
5	4	3	0	0	5	2	0	3.75	4	1.25	1	3.75	4	2.13	2
B/ITD	3	2	0.6	1	4	2	1	2.75	3	0	0	2.75	3	2.75	3
6	71.82	28	67.36	65	13.5	63	65	57.81	52	65.28	69	47.79	50	48.81	54
7	126.36	0	102.36	0	212.06	0	0	106.34	0	93.59	0	96.33	0	92.15	0

Belagavi RD															
Haveri			Uttara Kannada				Vijayapura			Total					
5			6				7			Total					
AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total	AAP	% of total	achievement	% of total
1	32.65	23	34.26	25	49.87	24	26	24.03	20	22.82	23	223.54	22	240.7	26
2	7	5	4.36	3	9	4	4	6	5	5	5	49	5	37.85	4
3	5.6	4	5.45	4	6.8	3	3	5	4	5	5	37.5	4	29.41	3
4	7.8	6	7.33	5	9.4	5	5	7	6	6.88	7	54.6	5	38.03	4
5	4.25	3	6	4	5.25	3	3	3.75	3	3.75	4	29.75	3	13.77	2
B/ITD	3.25	2	6.95	5	4.25	2	2	2.75	2	0.5	1	22.75	2	15.32	2
6	81.43	57	71.23	54	121.34	59	59	71.15	60	53.38	5	584.84	59	559.97	59
7	141.98	0	136.58	0	205.91	0	0	119.69	0	97.33	0	1001.98	0	935.05	0

Annexure-5 The District and activity wise targets and Achievement during 2019-20.

Bengaluru Revenue Division

S.N	Activities		Bengaluru Urban		Chikkaballapur		Chitradurga		Davangere		Kolar		Ramanagara		Shivamogga		Tumkuru		Total			
	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A		
I	Farmer Oriented Activities																					
B.1	Developing/Revisiting Strategic Research & Extension Plan (SREP)		0	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.19	0	0.63
	Total B1		0	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.63
	Training of Farmers (No. of man days):-																					
B.2	(a) Inter-State (No. of blocks *3m*5days*0.0125)		1.13	0.66	1.13	0	1.13	0	0.9	1.66	1	0	0.75	0.41	1.3	0.19	1.88	0.15	9.21	9.21	3.07	
	(b) Within State (No. of Blocks *25m*2days*0.01)		3	4.7	3	0	3	3.1	2.5	1.03	3	1.3	2	2.2	3.5	2.74	5	2.37	24.5	24.5	17.4	
	(c) Within District level (No. of Blocks *150m*0.0025)		2.25	4.2	2.25	2.85	3.72	1.9	2.67	2	3.9	1.5	1.08	2.6	2.22	3.75	2.92	18.4	18.4	23.5		
	Total B2		6.38	9.56	6.38	2.85	6.82	5.3	5.36	5	4.3	3.69	7.4	5.15	10.6	5.4	52.1	44				
	Organizing demonstrations (7Demonstration/Block*0.04)																					
B.3	(a) Demonstration agriculture sector		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(a) For Allied sector for the Krushibhagya beneficiaries		1.68	1.6	1.68	1.68	2.32	1.4	1.4	1.4	1	1.4	1.12	0.36	2	2.76	2.8	1.72	13.7	13.7	13.2	
	Total B3		1.68	1.6	1.68	1.68	2.32	1.4	1.4	1	1.1	0.36	2	2.76	2.8	1.7	13.7	13.2				
	Exposure visits of farmers (No. of man-days)																					
B.4	(a) Inter State (No. of Blocks *3m*5days*0.010)		0.9	1.56	0.9	0	0.9	0	0.8	0.56	1	0	0.6	0.3	1.1	0.15	1.5	0.3	7.35	7.35	2.87	
	(b) Within State (No. of Blocks *2.5m*3days*0.005)		2.25	2.9	2.25	2.96	4.69	1.9	2.55	2	5.9	1.5	2.1	2.6	4.68	3.75	3.63	18.4	18.4	29.5		
	(c) Within District (No. of Blocks *100m*1 day*0.003)		1.8	2.85	1.8	3.06	1.76	1.5	1.5	2	0.6	1.2	1.37	2.1	0.7	3	1.14	14.7	14.7	12.9		
	Total B4		4.95	7.31	4.95	6.02	6.45	4.1	4.61	4	3.3	3.77	5.8	5.53	8.25	5.1	40.4	45.3				

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	Mobilization of farmer groups of different types including Farmer Interest Groups, Women Groups, Farmer Organizations, Commodity Organisations and Farmer Cooperatives etc.																									
B.5	(a) Their capacity building, skill development and support services for 5 RSG's & 2 FSG's (min. 07 grps/block@0.05/grp)	2.1	1.85	2.1	2.1	2.1	2.1	1.8	1.17	2	1.8	1.4	1.4	2.5	1.9	3.5	2.08	17.2	15							
	(b) For RSG's Seed money /revolving fund (5 grps/block@0.10grp)	3	1.7	3	3	3	1.7	2.5	2.5	3	2.4	2	1.9	3.5	2	5	0.8	24.5	16							
	(c) For 2 Food Security Groups (2 grps/block@0.1grp)	1.2	1	1.2	1.2	1.2	0.3	1	0	1	1	0.8	0.8	1.4	0.6	2	0.58	9.8	5.48							
	Total B5	6.3	4.55	6.3	6.3	4.75	5.3	3.67	5	5	4.2	4.1	7.4	4.5	10.5	3.5	51.5	36.5								
B.6	Rewards and incentives - Best organised group representing 5 different enterprises groups	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B.7	Farmers Awards-best farmers representing different enterprises-block level (5 farmers/Block@0.10/- each)	3	3.5	3	3.2	3	3.3	2.5	2.4	3	2.5	2	0.5	3.5	2.1	5	0	24.5	17.5							
A.7	District Level Farmer Awards (0.25/year/farmer) (10 farmers/District) *As per the selection process, after distribution of District farmer awards (which comes under state level activity-A 7), the details need to be submitted to HO for updation of ERMS	2.5	0	2.5	2.75	2.5	0	2.5	2.25	3	2.5	2.5	3	2.5	0.75	2.5	0	20	11.3							
	Total (B6+B7+A7)	5.5	3.5	5.5	5.95	5.5	3.3	5	4.65	5	5	4.5	3.5	6	2.85	7.5	0	44.5	28.8							
	Total -I	24.8	27	24.81	22.8	24.81	23.64	21	19.69	21	23	17	15.42	29	20.79	39.7	16	202	168							

II	Farm Information dissemination																			
B.8	District level exhibitions, kisan melas, fruits/vegetable show. (Rs 2lakh/dist.)	2	0.79	2	4	2	2	1.34	2	2	2	2	2.85	2	1.19	2	1	16	15.2	
	TOTAL B.8	2	0.79	2	4	2	2	1.34	2	2	2	2	2.85	2	1.19	2	1	16	15.2	
B.9	(a) Information dissemination through printed leaflets etc and local advertisements (Rs. 1.5lakh per District)	1.5	1.16	1.5	0.61	1.5	4.08	1.5	1.08	2	1.3	1.5	2.05	1.5	0.35	1.5		12	12.1	
	(b) Low-cost publication (Rs. 50,000 /per block)	3	0.7	3	2.9	3	2.25	2.5	3.41	3	2.2	2	1.08	3.5	0.44	5	3.29	24.5	16.3	
	TOTAL B9	4.5	1.86	4.5	3.51	4.5	6.33	4	4.49	4	4	3.5	3.13	5	0.79	6.5	4.8	36.5	28.4	
B.10	Development of technology packages in digital form to be shared through IT network												1.99						0	1.99
	TOTAL B10	0	0	0	0	0	0	0	0	0	0	0	1.99	0	0	0	0	0	0	1.99
	TOTAL II	6.5	2.65	6.5	7.51	6.5	8.33	6	5.83	6	6	5.5	7.97	7	1.98	8.5	5.8	52.5	45.6	
III	Agricultural Technology Refinement, Validation and adoption																			
B.11	(a) Farmer Scientist Interactions at District level 25 farmers for 2 days (25*2*0.20)	0.4	0.4	0.4	0.4	0.4	0.11	0.4	0.3	0	0.4	0.4	0.4	0.4	0	0.4	0	3.2	2.01	
	(b) Designate expert support from KVK/SAU at District level (0.02/month/dist.) Rs.24,000/dist.)	0.24	0	0.24	0.2	0.24	0	0.2	0.19	0	0	0.24	0	0.2	0	0.24	0	1.92	0.39	
	(c) Joint visits by Scientists & Extension Workers for 26 visits @Rs. 1,400/visit/dist. for 26 visits. (1*26*0.014)	0.36	0.14	0.36	0.34	0.36	0	0.4	0.1	0	0.4	0.36	0.17	0.4	0	0.36	0	2.88	1.11	
	TOTAL B11	1	0.54	1	0.94	1	0.11	1	0.59	1	1	1	0.57	1	0	1	0	8	3.51	

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B.12	Organisation of Kissan Goshities to strengthen Research - Extension - Farmer linkages (2 per block) (No. of blocks *2*0.15)	1.8	0.75	1.8	1.8	1.8	1.8	2.06	1.5	1.53	2	1	1.2	1.08	2.1	1.29	3	2.7	14.7	12.6
	TOTAL B12	1.8	0.75	1.8	1.8	1.8	2.06	1.5	1.53	2	1	1.2	1.08	2.1	1.29	3	2.7	14.7	12.6	
B.13	Assessment, Refinement, Validation & adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres (Rs. 2.5 Lakhs/dist)	2.5	0	2.5	0	2.5	0	2.5	0	2.5	3	0	2.5	0	2.5	0	2.5	0.2	20	0.21
	TOTAL B13	2.5	0	2.5	0	2.5	0	2.5	0	2.5	3	0	2.5	0	2.5	0	2.5	0.2	20	0.21
	TOTAL III	5.3	1.29	5.3	2.74	5.3	2.17	5	2.12	5	2	4.7	1.65	5.6	1.29	6.5	2.9	42.7	16.3	
IV	Administrative / Capital expenses at District and Block level																			
	Establishment of ATMA like Institutions- RECURRING																			
	(a) TA/DA and Operational expenses for District level (29*3.00/)	3	1.1	3	2.3	3	0.18	3	1.55	3	0.6	3	0.12	3	0.87	3	1.42	24	8.18	
	(b) Hiring of vehicles and POL (29*1.80/)	1.8	1.26	1.8	1.8	1.8	0.16	1.8	0.9	2	0.4	1.8	0.17	1.8	0	1.8	0.87	14.4	5.52	
B.14	(c) Operational Expenses exclusively for block level (Including Hiring of vehicles and POL) (No. of Blocks * Rs.25,000/-)	1.5	0.44	1.5	1.43	1.5	0.82	1.3	0.68	1	0.9	1	0.52	1.8	0.9	2.5	0.21	12.3	5.89	
	(d) Operational Expenses for DFAC Meetings (Min 4 meetings per District 1 *4*0.05/)	0.2	0.09	0.2	0.15	0.2	0	0.2	0.1	0	0.2	0.2	0.05	0.2	0.03	0.2	0.02	1.6	0.64	

	(e) Operational Expenses for BFAC Meetings (Min 6 meetings per Block No. 1 blocks*6*0.025/)	0.9	0.7	0.9	0.53	0.9	0.16	0.8	0.44	1	0.6	0.6	0.1	1.1	0.21	1.5	0.25	7.35	3.01
B.14	Non-Recurring f. Equipment g. Civil works and re-furnishing of ATMA office																		
	Total B14	7.4	3.59	7.4	6.21	7.4	1.32	7	3.67	7	3	6.6	0.96	7.8	2.01	9	2.8	59.6	23.2
B.15	Farm School (2 Nos/Block) @ Rs. 29,414/-																		
	Total B 15																		
C	Innovative Activity (District level)- Implementation of Extn. /Activities through Agri-pruners trained under Agri-Clinic Scheme or any other Scheme																		
C.1	P. G. Diploma in Agricultural Extension through MANAGE																		
C.2	Innovative Activities - District Level																		
D	Support for District level Training Institutions - It may include both "Operational Expenses" and Non-Recurring Expenditure (Rs. 20 lakh/dist.)	2.5	0	2.5	0	2.5	0	2.5	0	3	0	2.5	0	2.5	0	2.5	0	20	0
D.1	(i) Setting up CRS (Content creation)		2.5															0	2.5

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D.3	Farmer friend on 50:50 sharing pattern for 14703 FF's @ 550/- per month for 6 months	2.5	2.5	0	2.5	0	2.5	0	3	0	2.5	0	2.5	0	2.5	0	2.5	0	20	2.5
E	OTHER INNOVATIVE ACTIVITIES																			
E.2	Innovative activities - District component (Rs. 25,000/block) innovative equipment's like solar light traps etc., are need to be procured and demonstrated	1.5	1.85	1.5	1.5	0	0.88	1.3	1.59	1	1.3	1	0.49	1.8	2.39	2.5	1.5	12.3	9.95	
	Total E	1.5	1.85	1.5	1.5	0	0.88	1.3	1.59	1	1.3	1	0.49	1.8	2.39	2.5	1.5	12.3	9.95	
F	Innovative Technology Dissemination Component																			
1	Display Board	0	0	0	0	0	0	0	0.61	0	0	0	0	0	0	0	0	0	0	0.61
2	Pico Projector	0	0	0	0	0	0	0	0	0	0	0	0.55	0	0	0	0	0	0	0.55
3	Low-cost film production (Rs. 50,000 for 7 films fixed)	0.5	0.1	0.5	0.5	0	0	0.5	0.99	1	0	0.5	0	0.5	0	0.5	0.99	4	2.08	
4	Hand held devices & GPRs service charges @ 0.25 Lakh/block (Rs. 0.20 lakhs for HHD & Rs. 0.05 lakhs for GPRS Kala Jatha, certified crop advisors upto Rs. 1.00 Lakh (Other)	1.5	0	1.5	0	1.5	0.22	1.3	0	1	0	1	0.15	1.8	0	2.5	0.99	12.3	1.36	
5	Innovative activities like solar light traps etc., are need to be procured and emonstrated @ Rs. 1.00 lakh per District)	1	0.75	1	0.5	1	0.36	1	0.92	1	1	1	0.14	1	0.83	1	1	8	5.5	
	Total F	3	0.85	3	0.5	3	0.58	2.8	2.52	3	1	2.5	0.84	3.3	0.83	4	2.98	24.3	10.1	

Mysuru Revenue Division

S.N	C.R. Nagara		Chikkamagalur		Dakshina Kannada		Hassan		Kodagu		Mandya		Mysuru		Udupi		Total		
	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A	
I	Farmer Oriented Activities																		
B.1	Developing /Revisiting Strategic Research & Extension Plan (SREP)																		
	0	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.74
	0	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.74
B.2	Training of Farmers (No. of man days):-																		
	0.75	0.49	1.31	0	0.94	0.7	1.5	0	0.56	0	1.31	1.43	1.31	0	0.56	0.56	8.24	3.18	
	2	1.95	3.5	1.95	2.5	1.76	4	3.5	1.5	0.5	3.5	3.5	3.5	4.49	1.5	1.5	22	19.15	
	1.5	3.47	2.63	2.52	1.87	1.76	3	4.9	1.13	0.61	2.63	2.63	2.63	3.03	1.13	3.75	16.52	22.67	
	4.25	5.91	7.44	4.47	5.31	4.22	8.5	8.4	3.19	1.11	7.44	7.56	7.44	7.52	3.19	5.81	46.76	45	
B.3	Organizing demonstrations (7Demonstration/Block*0.04)																		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.12	1.3	1.96	2.97	1.4	1.08	2.24	2.16	0.84	0.56	1.96	1.96	1.96	1.72	0.84	1.8	12.32	13.55	
	1.12	1.3	1.96	2.97	1.4	1.08	2.24	2.16	0.84	0.56	1.96	1.96	1.96	1.72	0.84	1.8	12.32	13.55	
B.4	Exposure visits of farmers (No. of mandays)																		
	0.6	0.57	1.05	0	0.75	0.6	1.2	0	0.45	0.3	2.1	1.05	1.05	0.18	0.45	0.45	7.65	3.15	
	1.5	4.02	2.63	4.25	1.88	3.21	3	8.69	1.13	3.06	4.9	6.67	2.63	3.91	1.13	4.32	18.8	38.13	
	1.2	2.02	2.1	2.17	1.5	1.26	2.4	2.17	0.9	1.95	2.1	2.1	2.1	4.59	0.9	0.9	13.2	17.16	
	3.3	6.61	5.78	6.42	4.13	5.07	6.6	10.86	2.48	5.31	9.1	9.82	5.78	8.68	2.48	5.67	39.65	58.44	
B.5	Mobilization of farmer groups of different types including Farmer Interest Groups, Women Groups, Farmer Organizations, Commodity Organisations and Farmer Cooperatives etc.																		

Annexure

	(a) Their capacity building, skill development and support services for 5 RSG's & 2 FSG's (min. 07 grps/block@0.05/grp)	1.4	0.8	2.45	1.12	1.75	0.63	2.8	2.32	1.05	0.49	2.45	2.1	2.45	2.3	1.05	1.05	15.4	10.81
	(b) For RSG's Seed money /revolving fund (5 grps/block@ 0.10grp)	2	1.1	3.5	1.7	2.5	1.8	4	2.9	1.5	0.9	3.5	3	3.5	3.3	1.5	2.1	22	16.8
	(c) For 2 Food Security Groups (2 grps/block@0.1 grp)	0.8	0.2	1.4	0.2	1	0.4	1.6	1.1	0.6	0.2	1.4	1.2	1.4	0.9	0.6	0.6	8.8	4.8
	Total B5	4.2	2.1	7.35	3.02	5.25	2.83	8.4	6.32	3.15	1.59	7.35	6.3	7.35	6.5	3.15	3.75	46.2	32.41
B.6	Rewards and incentives - Best organised group representing 5 different enterprises groups	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B.7	Farmers Awards-best farmers representing different enterprises-block level (5 farmers/Block@0.10/-each)	2	0	3.5	3.3	2.5	2.5	4	2.2	1.5	0.9	3.5	3.5	3.5	3.3	1.5	1.5	22	17.2
B.7	District Level Farmer Awards (0.25/year/farmer) (10 farmers/District) *As per the selection process, after distribution of District farmer awards (which comes under state level activity-A 7), the details need to be submitted to HO for updation of ERMS	2.5	0	2.5	0	2.5	2.5	2.5	0.25	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	20	10.25
	Total (B6+B7+A7)	4.5	0	6	3.3	5	5	6.5	2.45	4	0.9	6	6	6	5.8	4	4	42	27.45
	Total -I	17.37	16.66	28.53	20.18	21.09	18.2	32.24	30.19	13.66	9.47	31.85	31.64	28.53	30.22	13.66	21.03	186.93	177.59
II	Farm Information dissemination																		
B.8	District level exhibitions, kisan melas, fruits/vegetable show. (Rs 2lakh/dist)	2	2	2	0	2	1	2	1.4	2	2.5	2	1.99	2	1.25	2	3.39	16	13.53
	Total -B-8	2	2	2	0	2	1	2	1.4	2	2.5	2	1.99	2	1.25	2	3.39	16	13.53
B.9	Information dissemination through printed leaflets etc and local advertisements (Rs. 1.5lakh per District)	1.5	1.11	1.5	0.97	1.5	1.5	1.5	0.93	1.5	0.11	1.5	1.5	1.5	1.5	1.5	1.5	12	9.12
	(b) Low-cost publication (Rs. 50,000 /per block)	2	0	3.5	4.2	2.5	0.8	4	2.25	1.5	0.47	3.5	2.43	3.5	2.15	1.5	0.06	22	12.36
	TOTAL B9	3.5	1.11	5	5.17	4	2.3	5.5	3.18	3	0.58	5	3.93	5	3.65	3	1.56	34	21.48

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

B.10	Development of technology packages in digital form to be shared through IT network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1				
	TOTAL B10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1			
	TOTAL II	5.5	3.11	7	5.17	6	3.3	7.5	4.68	5	3.08	7	5.92	7	4.9	5	4.95	50	35.11								35.11			
III	Agricultural Technology Refinement, Validation and adoption																													
B.11	(a) Farmer Scientist Interactions at District level 25 farmers for 2 days (25*2*0.20)	0.4	0.48	0.4	0	0.4	0.4	0.4	0.4	0.4	0.15	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	3.2	2.43	
	(b) Designate expert support from KVK/SAU at District level (0.02/month/dist.) Rs.24,000/dist.)	0.24	0	0.24	0	0.24	0	0.24	0.34	0.24	0	0.24	0	0.24	0	0.24	0	0.24	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.18	2.88	1.35	
	(c) joint visits by Scientist & Extension Workers for 26 visits @Rs. 1,400/visit/dist for 26 visits. (1*2.6*0.014)	0.36	0.1	0.36	0.18	0.36	0.16	0.36	0.25	0.36	0	0.36	0.32	0.36	0.16	0.36	0.18	0.38	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.18	2.88	1.35	
	TOTAL B11	1	0.58	1	0.18	1	0.56	1	0.99	1	0.15	1	0.72	1	0.6	1	0.38	8	4.16									8	4.16	
B.12	Organisation of Kissan Goshtries to strengthen Research - Extension -Farmer linkages (2 per block) (No. of blocks *2*0.15)	1.2	1.2	2.1	1.91	1.5	1.19	2.4	2.32	0.9	0.7	2.1	2.1	2.1	2.1	2.1	0.9	0.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	0.9	13.2	12.42	
	TOTAL B12	1.2	1.2	2.1	1.91	1.5	1.19	2.4	2.32	0.9	0.7	2.1	2.1	2.1	2.1	2.1	0.9	0.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	0.9	13.2	12.42	
B.13	Assessment, Refinement, Validation & adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres (Rs. 2.5 Lakhs/dist)	2.5	0	2.5	0	2.5	0	2.5	2.15	2.5	0	2.5	2.5	2.5	0	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	20	4.65	
	TOTAL B13	2.5	0	2.5	0	2.5	0	2.5	2.15	2.5	0	2.5	2.5	2.5	0	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	20	4.65	
	TOTAL III	4.7	1.78	5.6	2.09	5	1.75	5.9	5.46	4.4	0.85	5.6	5.32	5.6	2.7	4.4	1.28	41.2	21.23											
IV	Administrative / Capital expenses at District and Block level																													
	Establishment of ATMA like Institutions- RECURRING																													
B.14	(a) TA/DA and Operational expenses for District level (29*3.00/)	3	1.94	3	0.51	3	1.4	3	1.66	3	1.3	3	0.52	3	1.64	3	0.39	24	9.36											

	(b) Hiring of vehicles and POL (29*1.80/)	1.8	0.49	1.8	0.88	1.8	0	1.8	0	1.8	1.3	1.8	0	1.8	2.65	1.8	0	14.4	5.32
	(c) Operational Expenses exclusively for block level (Including Hiring of vehicles and POL) (No. of Blocks * Rs.25,000/-)	1	1.31	1.75	0.23	1.25	0.55	2	1.45	0.75	0.52	1.75	1.37	1.75	1.01	0.75	0.53	11	6.97
	(d) Operational Expenses for DFAC Meetings (Min 4 meetings per District 1*4*0.05)	0.2	0.09	0.2	0	0.2	0.1	0.2	0.2	0.2	0	0.2	0.19	0.2	0.15	0.2	0	1.6	0.73
	(e) Operational Expenses for BFAC Meetings (Min 6 meetings per Block No. 1 blocks*6*0.025/)	0.6	0.15	1.05	0.21	0.75	0.27	1.2	0.61	0.45	0.08	1.05	0.48	1.05	0.32	0.45	0.25	6.6	2.37
	Non-Recurring																		
F	Equipment																		
g	Civil works and re-furnishing of ATMA office																		
	Total B14	6.6	3.98	7.8	1.83	7	2.32	8.2	3.92	6.2	3.2	7.8	2.56	7.8	5.77	6.2	1.17	57.6	24.75
B.15	Farm School (2 Nos/Block) @ Rs. 29,414/-	2.35	2.11	4.12	1.94	2.94	1.53	4.71	3.47	1.76	0.98	4.12	4.07	4.12	3.18	1.76	1.41	25.88	18.69
	Total B 15	2.35	2.11	4.12	1.94	2.94	1.53	4.71	3.47	1.76	0.98	4.12	4.07	4.12	3.18	1.76	1.41	25.88	18.69
C	Innovative Activity (District level)-																	0	0
C.1	Implementation of Extn. /Activities through Agri-preneurs trained under Agri-Clinic Scheme or any other Scheme																	0	0
C.2	P.G. Diploma in Agricultural Extension through MANAGE																	0	0
D	Innovative Activities - District Level																	0	0
D.1	Support for District level Training Institutions - It may include both "Operational Expenses" and Non-Recurring Expenditure (Rs. 20 lakh/dist.)	2.5	2.09	2.5	0	2.5	0	2.5	0	2.5	0	2.5	1.97	2.5	0	2.5	0	20	4.06
D.2	(i) Setting up CRS (Content creation)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D.3	Farmer friend on 50:50 sharing pattern for 14703 FFs @ 550/- per month for 6 months	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total D	2.5	2.09	2.5	0	2.5	0	2.5	0	2.5	0	2.5	1.97	2.5	0	2.5	0	20	4.06

Financial Statement																							
F1	Unspent opening balance as on 01.04.2020	54.31																					
F2	Fund Received from DAC	62.66																					
F3	Bank Interest & Other receipts	0.42																					
F4	Total Grants available																						
F5	Total Expenditure (From 01-04-2020 up to 30-11-2020)	85.46	85.46	0	137.18	0	87.24	0	174.74	0	73.83	0	180.2	0	173.19	0	59.65	85.46	971.49				
F6	Unspent closing balance as on 30-11-2020																						

Kalaburgi Revenue Division

S.N	Details of Activities as given in Cafeteria		Ballari		Bidar		Kalaburagi		Koppal		Raichur		Yadgiri		Total	
	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A
I	Farmer Oriented Activities															
B.1	Developing /Revisiting Strategic Research & Extension Plan (SREP)															
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B.2	Training of Farmers (No. of man days):-															
	1.5	0	0.94	0.93	1.31	1.05	0.75	0	0.94	1.14	0.56	0	0	0	0	3.12
	4	4	2.5	2.5	3.5	1.3	2	0.46	2.5	1.9	1.5	1.5	1.5	1.5	16	11.66
	3	2.18	1.88	1.71	2.63	1.24	1.5	1.33	1.88	2.15	1.13	1.13	1.13	1.13	12.02	9.74
	8.5	6.18	5.32	5.14	7.44	3.59	4.25	1.79	5.32	5.19	3.19	2.63	2.63	3.19	34.02	24.52
B.3	Organizing demonstrations (Demonstration/Block*0.04)															
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2.24	1.08	1.4	1.16	1.96	1.96	1.12	0.92	1.4	0.76	0.84	0.68	0.68	0.68	8.96	6.56
	2.24	1.08	1.4	1.16	1.96	1.96	1.12	0.92	1.4	0.76	0.84	0.68	0.68	0.68	8.96	6.56
B.4	Exposure visits of farmers (No. of man-days)															
	1.2	0	0.75	1.5	1.05	1.05	0.6	0	0.75	0.06	0.45	0	0	0	4.8	2.61
	3	2.58	1.88	2.85	2.63	3.71	1.5	4.2	1.88	1.55	1.13	2.92	2.92	2.92	17.81	17.81
	2.4	2.61	1.5	3.06	2.1	2.1	1.2	0.37	1.5	3.07	0.9	0.9	0.9	0.9	9.6	12.11
	6.6	5.19	4.13	7.41	5.78	6.86	3.3	4.57	4.13	4.68	2.48	3.82	3.82	2.48	26.42	32.53

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

B.10	Development of technology packages in digital form to be shared through IT network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TOTAL B10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TOTAL II	7.5	6.4	6	7	4.96	5.5	5	6	6	5	5	37	33.36											
III	Agricultural Technology Refinement, Validation and adoption																								
B.11	(a) Farmer Scientist Interactions at District level 25 farmers for 2 days (25*2*0.20)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.4	2.2
	(b) Designate expert support from KVK/SAU at District level (0.02/month/dist.) Rs.24,000/dist.)	0.24	0.24	0.24	0	0.24	0.12	0.24	0	0.24	0	0.24	0	0.24	0	0.24	0	0.24	0	0.24	0	0.24	0	1.44	0.36
	(c) Joint visits by Scientists & Extension Workers for 26 visits @Rs. 1,400/visit/dist for 26 visits. (1*26*0.014)	0.36	0.18	0.36	0	0.36	0	0.36	0	0.36	0	0.36	0.27	0.36	0	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	2.16	0.81
	TOTAL B11	1	0.82	1	0.4	0.52	1	0.67	1	0.67	1	0.67	1	0.2	1	0.76	6	3.37							
B.12	Organisation of Kissan Goshities to strengthen Research - Extension -Farmer linkages (2 per block) (No. of blocks *2*0.15)	2.4	1.45	1.5	1.5	3.15	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	9.6	9.7	
	TOTAL B12	2.4	1.45	1.5	1.5	3.15	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	0.9	0.9	9.6	9.7							
B.13	Assessment, Refinement, Validation & adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres (Rs. 2.5 Lakhs/dist)	2.5	0	2.5	0	2.5	0	2.5	0	2.5	0	2.5	0	2.5	2	2.5	0	15	2						
	TOTAL B13	2.5	0	2.5	0	2.5	0	2.5	0	2.5	0	2.5	0	2.5	2	2.5	0	15	2						
	TOTAL III	5.9	2.27	5	1.9	3.67	4.7	1.87	5	3.7	4.4	1.66	30.6	15.07											
IV	Administrative / Capital expenses at District and Block level																								
	Establishment of ATMA like Institutions-																								

Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

E	OTHER INNOVATIVE ACTIVITIES																																									
E.2	Innovative activities - District component (Rs. 25,000/block) innovative equipment's like solar light traps etc., are need to be procured and demonstrated	2	4.68	1.25	1.25	1.75	1.25	1.75	0	0	1	1	1.25	0	0	0.75	0.75	0	0	0.75	0.75	8	7.68																			
	Total E	2	4.68	1.25	1.25	1.75	1.25	1.75	0	0	1	1	1.25	0	0	0.75	0.75	0	0	0.75	0.75	8	7.68																			
F	Innovative Technology Dissemination Component																																									
1	Display Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	Pico Projector	0	0	0	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.66	
3	Low-cost film production (Rs. 50,000 for 7 films fixed)	0.5	0.5	0.5	0	0.5	0	0.5	0	0.5	0.5	0.5	0.5	0	0	0.5	0.5	0	0	0.5	0.5	3	1.5																			
4	Hand held devices & GPRs service charges @ 0.25 Lakh/block (Rs. 0.20 lakhs for HHD & Rs. 0.05 lakhs for GPRS Kala Jatha, certified crop advisors up to Rs. 1.00 Lakh (Other))	2	0	1.25	0.96	1.75	1.75	1.75	1.75	1	0.5	1.25	0	0.75	0	0.75	0.75	0	0	0.75	0.75	8	3.96																			
5	Innovative activities like solar light traps etc., are need to be procured and demonstrated @ Rs. 1.00 lakh per District)	1	0.28	1	0	1	0	1	0	1	0	1	1	0.25	1	1	1	0.25	0	0.25	0.25	6	1.53																			
	Total F	3.5	0.78	2.75	1.62	3.25	1.75	1.75	1.75	2.5	1	2.75	0.25	0.25	2.25	2.25	2.25	0.25	0.25	2.25	2.25	17	7.65																			
G	Manpower component																																									
	Computer Programmers @ District (1*16,000/-*12)	1.92	2.12	1.92	2.07	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	11.52	11.87																			
	BTM+OE (No. of Blocks * 30,000/*7)	28.9	25.51	18	17.97	25.2	25.2	25.2	25.2	14.43	14.4	18	17.37	10.8	10.82	11.533	111.27	111.27	10.82	10.82	11.52	11.87																				
	ATM+OE (25,000/*23)	57	44.8	69	55.8	72	71	71	45	37.5	45	90	90.72	39	38.72	372	338.54	39	38.72	372	372	338.54																				
	Dy. Project Directors (2*42,000/*12)	10	0.99	5.04	2.39	10.08	7.98	5.04	4.84	5.04	4.84	5.04	5.04	5.04	4.44	40.24	20.64	5.04	4.44	4.44	4.44	20.64																				
	Overheads on PF, EPF, ESI, Taxes, Outsource Agency margin, etc., @11.30% over and above salaries	11	1.73	10.57	4.38	12.28	21.46	7.46	12.55	12.93	12.55	12.93	12.93	6.38	5.31	60.62	52.67	6.38	5.31	5.31	5.31	60.62																				
	Total G	108.8	75.15	104.5	82.61	121.5	127.6	73.85	71.21	127.9	117.3	63.14	61.21	599.7	535	739.2	535	61.21	61.21	599.7	535	739.2																				
	Grnd total (B to G)	175.4	114.4	153.1	119.5	182	174.9	116.4	95.39	176.4	141.5	99.66	93.41	902.9	739.2	902.9	739.2	93.41	93.41	902.9	739.2	902.9																				

Belagavi Revenue Division

S.N		Bagalkot		Belagavi		Dharwad		Gadag		Haveri		Uttara Kannada		Vijayapura		Total	
		T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A
I																	
Farmer Oriented Activities																	
B.1		Developing /Revisiting Strategic Research & Extension Plan (SREP)															
Total B1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B.2		Training of Farmers (No. of man days): -															
(a) Inter-State (No. of blocks *3m*5days*0.0125)		1.13	0.13	1.88	1.69	0.94	0.93	0.94	0.94	0.94	1.31	0.7	2.06	1.13	0.94	0.94	6.46
(b) Within State (No. of Blocks*25m*2days*0.01)		3	2.43	5	5.16	2.5	1.78	2.5	2.5	3.5	4.91	5.5	5.52	2.5	2.5	24.8	
(c) Within District level (No. of Blocks*150m*0.0025)		2.25	2.37	3.75	3.75	1.88	2.03	1.88	2	2.63	3.25	4.13	3.86	1.88	1.88	19.14	
Total B2		6.38	4.93	10.63	10.6	5.32	4.74	5.32	5.44	7.44	8.86	11.69	10.51	5.32	5.32	50.4	
B.3		Organizing demonstrations (Demonstration/Block*0.04)															
(a) Demonstration agriculture sector		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b) For Allied sector for the Krushibhagya beneficiaries		1.68	1.6	2.8	2.8	1.4	1.05	1.4	1.4	1.96	1.88	3.08	3.08	1.4	1.4	13.21	
Total B3		1.68	1.6	2.8	2.8	1.4	1.05	1.4	1.4	1.96	1.88	3.08	3.08	1.4	1.4	13.21	
B.4		Exposure visits of farmers (No. of man-days)															
(a) Inter State (No. of Blocks*3m*5days*0.010)		0.9	0.1	1.5	3.44	0.75	0.75	0.75	0.75	1.05	1.1	1.65	1.45	0.75	0.23	7.82	
(b) Within State (No. of Blocks*25m*3days*0.005)		2.25	3.75	3.75	9.35	1.88	1.96	1.88	3.3	2.63	4.18	4.13	5.88	1.88	1.88	30.3	
(c) Within District (No. of Blocks*100m*1 day*0.003)		1.8	1.8	3	3.07	1.5	1.5	1.5	1.5	2.1	2.3	3.3	4.11	1.5	1.4	15.68	
Total B4		4.95	5.65	8.25	15.86	4.13	4.21	4.13	5.55	5.78	7.58	9.08	11.44	4.13	3.51	53.8	

II	Farm Information dissemination																	
B.8	District level exhibitions, kisan melas, fruits/vegetable show. (Rs 2lakh/dist.)	2	2	2	2	2	2	2	2	2	2	0	2	0.7	2	1	14	9.38
	Total -B.8	2	2	2	2	2	2	2	2	2	2	0	2	0.7	2	1	14	9.38
B.9	(a) Information dissemination through printed leaflets etc and local advertisements (Rs. 1.5lakh per District)	1.5	0.94	1.5	1.36	1.5	1.1	1.5	1.5	1.5	1.14	1.5	1.5	0.77	1.5	1.5	10.5	8.26
	(b) Low-cost publication (Rs. 50,000 /per block)	3	1.36	5	4.31	2.5	0.95	2.5	2.5	2.49	3.22	3.5	5.5	5.38	2.5	2.5	24.5	20.21
	TOTAL B9	4.5	2.3	6.5	5.67	4	2.05	4	4	3.94	4.36	5	7	6.15	4	4	35	28.47
B.10	Development of technology packages in digital form to be shared through IT network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL B10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL II	6.5	4.3	8.5	7.67	6	4.05	6	6	5.62	7	4.36	9	6.85	6	5	49	37.85
III	Agricultural Technology Refinement, Validation and adoption																	
B.11	(a) Farmer Scientist Interactions at District level 25 farmers for 2 days (25*2*0.20)	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.8	2.6
	(b) Designate expert support from KVK/SAU at District level (0.02/month/dist.) Rs.24,000/dist.)	0.24	0	0.24	0.24	0.24	0	0.24	0	0	0.24	0.24	0.24	0.24	0.24	0.24	1.68	0.96
	(c) Joint visits by Scientists & Extension Workers for 26 visits @Rs. 1,400/visit/dist for 26 visits. (1*26*0.014)	0.36	0	0.36	0.36	0.36	0.13	0.36	0.36	0.23	0.36	0.36	0.36	0.31	0.36	0.36	2.52	1.75
	TOTAL B11	1	0.4	1	1	1	0.33	1	1	0.63	1	1	1	0.95	1	1	7	5.31

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B.12	Organisation of Kissan Goshities to strengthen Research - Extension - Farmer linkages (2 per block) (No. of blocks *2*0.15)	1.8	1.65	2.4	3	1.5	1.35	1.5	1.35	2.1	1.95	3.3	3.15	1.5	1.5	14.1	13.95
	TOTAL B12	1.8	1.65	2.4	3	1.5	1.35	1.5	1.35	2.1	1.95	3.3	3.15	1.5	1.5	14.1	13.95
B.13	Assessment, Refinement, Validation & adoption of Frontline technologies and other short term researchable issues through KVK sand other local Research Centres (Rs. 2.5 Lakhs/dist)	2.5	0	2.5	0	2.5	1.15	2.5	2.5	2.5	2.5	2.5	1.5	2.5	2.5	17.5	10.15
	TOTAL B13	2.5	0	2.5	0	2.5	1.15	2.5	2.5	2.5	2.5	2.5	1.5	2.5	2.5	17.5	10.15
	TOTAL III	5.3	2.05	5.9	4	5	2.83	5	4.48	5.6	5.45	6.8	5.6	5	5	38.6	29.41
IV	Administrative / Capital expenses at District and Block level																
	Establishment of ATMA like Institutions-																
B.14	RECURRING																
	(a) TA/DA and Operational expenses for District level (29*3,00/-)	3	0.35	3	3	3	0.74	3	0.95	3	3.02	3	1.5	3	3	21	12.56
	(b) Hiring of vehicles and POL (29*1.80/-)	1.8	0.26	1.8	1.8	1.8	1.8	1.8	0.55	1.8	1	1.8	1.6	1.8		12.6	7.01
	(c) Operational Expenses exclusively for block level (Including Hiring of vehicles and POL) (No. of Blocks * Rs.25,000/-)	1.5	0.92	2.5	2.5	1.25	0.88	1.25	1.06	1.75		2.75		1.25		12.25	5.36
	(d) Operational Expenses for DFAC Meetings (Min 4 meetings per District 1*4*0.05/-)	0.2	0.08	0.2	0.2	0.2	0.04	0.2	0.2	0.2		0.2		0.2		1.4	0.52

	(e) Operational Expenses for BFAC Meetings (Min 6 meetings per Block No. 1 blocks*6*0.025/)	0.9	0.16	1.5	1.48	0.75	0.2	0.75	1.05	0.62	1.65	0.75	7.35	2.46
	Non-Recurring												0	0
	Equipment												0	0
F	Civil works and re-furnishing of ATMA office												0	0
	Total B14	7.4	1.77	9	8.98	7	3.66	7	7.8	3.38	9.4	7	3	27.91
B.15	Farm School (2 Nos/Block) @ Rs. 29,414/-	3.53	3.18	5.88	5.88	2.94	1.79	2.94	4.12	2.69	6.47	2.94	2.94	26.14
	Total B 15	3.53	3.18	5.88	5.88	2.94	1.79	2.94	4.12	2.69	6.47	2.94	2.94	26.14
C	Innovative Activity (District level)-													
C.1	Implementation of Extn. /Activities through Agri-pruners trained under Agri-Clinic Scheme or any other Scheme													
C.2	P.G. Diploma in Agricultural Extension through MANAGE													
D	Innovative Activities - District Level													
D.1	Support for District level Training Institutions - It may include both "Operational Expenses" and Non-Recurring Expenditure (Rs. 20 lakh/dist.)	2.5	0	2.5		2.5		2.5	2.5		2.5	2.5	17.5	0
D.2	(i) Setting up CRS (Content creation)		0		0.94		0			2.5			2.5	5.94
D.3	Farmer friend on 50:50 sharing pattern for 14703 FF's @ 550/- per month for 6 months													
	Total D	2.5	0	2.5	0.94	2.5	0	2.5	2.5	2.5	0	2.5	17.5	5.94

Annexure-6 List of Agro climatic zones in Karnataka state

Distribution of Districts according to Agro climatic zones in Karnataka state		
Sl. No.	Zones	Districts
1	North East Transition Zone (Bidar)	Bidar
2	Northeastern Dry Zone (Raichur)	Kalaburagi, Raichur, Bellary, Yadgir, Koppal
3	Northern Dry Zone (Bijapur)	Vijayapura, Gadag, Bagalkot
4	Central Dry Zone (Tumakuru)	Tumakuru, Chitradurga, Davangere
5	Eastern Dry Zone (Bengaluru)	Bangalore Rural, Bangalore Urban*, Kolar, Ramanagara, Chikkaballapur
6	Southern Dry Zone (Mysuru)	Mysore, Kodagu, Chamarajanagar, Mandya
7	Southern Transition Zone (Shivamogga)	Hassan, Shivamogga, Chikkamagaluru
8	North Transition Zone (Dharwad)	Dharwad, Belgaum, Haveri
9	Hill Zone (Uttara Kannada)	Uttara Kannada
10	Coastal Zone (Dakshin Kannada)	Dakshina Kannada, Udupi

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Annexure-7: List of focus group discussion with taluk level officers**Focus group discussion with taluk level officers**

District	Yadgir	Sample Taluk	Shapur	Date	19-03-20201
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List of Participants

Sl.No	Name	Designation	Sl.No	Name	Designation
1	Dr. Mehboob Sha. M	DPD, ATMA	4	Basavaraj Singri	Sericulture Department
2	Nakul	BTM, Shahapur	5	Dr. Vijay Kumar	Veterinary Doctor
3	Jagadeesh Nellogi	ATMA RSK			

District	Kalaburagi	Sample Taluk	Aland	Date	17-03-20201
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List of Participants

Sl. No	Name	Designation
1	Sharangouda Rangangouda	ADA
2	Sujay Kumar Savadi	BTM

District	Bidar	Sample Taluk	Bhalki	Date	16-03-20201
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List of Participants

Sl. No	Name	Designation
1	Pramod	DPD
2	Bhalki	BTM
3	Dr. Narasappa	AD
4	Dr. Nagaraj	CEO Veterinary Hospital Bhalki

District	Bengaluru	Sample Taluk	Bengaluru North	Date	02-02-2021
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List of Participants

Sl. No	Name	Designation
1	E. Prasanna Kunar	ADA North
2	Naveen B	BTM Bengaluru

District	Chikkaballapur	Sample Taluk	Chikkaballapur	Date	02-02-2021
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List of Participants

Sl.No	Name	Designation	Sl.No	Name	Designation
1	Madhu R	Assistant Director of fisheries	5	Keshava Reddy.A	AD of Agriculture
2	Dr. Sreenatha Reddy	CVO AH &VS	6	Soumya H	Assistant Technical Manager
3	Akmal Pasha	AD-Sericulture	7	Kalpana P.S	Assistant Technical Manager
4	Bhagya Lakshamma	SADH-Zp	8	Aruna N. V	Bock Technology Manager

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District	Chitradurga	Sample Taluk	Holalkere	Date	09-02-2021
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List of Participants

Sl. No	Name	Designation
1	Venkateshappa	Technical officer
2	Madhu	Assistant Director of Horticulture
3	Kumar H	BTM
4	Pradeep Kumar	Agriculture Department

District	Davangere	Sample Taluk	Davangere	Date	11-02-2021
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List of Participants

Sl. No	Name	Designation
1	Revanna Siddanna Gouda H. K	ADA
2	Vishweshwaraiah M	ADH (JA)
3	K.M. Sreeram gouda	CVO
4	Dr. Sahisha K	BTM
5	Venkatesh B. S	BTM
6	Reshma A	ATM

District	Kolar	Sample Taluk	Bangarpete	Date	28-01-2021
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List of Participants

Sl. No	Name	Designation
1	H.R. Asifulla	ADA
2	Dr. Shiva Reddy	SADH
3	Dr. Ramu	Assistant Director Veterinary
4	Laxmi Devi S.V.	Deputy Project Director
5	Archana C. S	ATM
6	Srinivas S. N	AD Sericulture

Participation

District	Ramanagara	Sample Taluk	Ramanagara	Date	04-02-2021
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List of Participants

Sl. No	Name	Designation
1	Dr. Vanitha. B. K	ADA Ramanagara
2	Kiran Kumar. K	DPD, ATM Ramanagara
3	Hanumantha M. R	AHO, Horticulture
4	Narya. R	BTM ATM Ramanagara

District	Tumakuru	Sample Taluk	Koratagere	Date	06-02-2021
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List of Participants

Sl. No	Name	Designation
1	Niorazam	ADA
2	Dr. Siddaangouda	AD-AH&VS
3	Balakrishna HR	Fisheries

4	Naveen kumar B	Zonal forest officer
5	Usha B.S	Sericulture
6	Doddayya	ATM
7	Nagaraju	AD-Horticulture
8	Jagannath A	BTM
9	Suneetha D	ATM

District	Chikkamagaluru	Sample Taluk	Kaduru	Date	04-01-2021
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List of Participants

Sl. No	Name	Designation
1	Manjula G	
2	Manjunath	BTM
3	Geetha	ATM
4	Priyanka	DPD

District	HAssan	Sample Taluk	Sakleshpura	Date	30-12-202
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List of Participants

Sl. No	Name	Designation
1	M.S Janardhan	ADA
2	Manjula	DPD
3	Sharankumar	BTM
4	Sushma	ATM
5	Akhilesha	ATM

District	Mandya	Sample Taluk	MAddur	Date	21-12-2020
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List of Participants

Sl. No	Name	Designation
1	Srinath	ADA
2	Shivakumar	DPD
3	Gavaskar	BTM
4	M.Basavaraju	ADS
5	Mahesh	RFO (SF)
6	Rekha	SADH
7	Mohan Kumar	Field Man
8	Pavitha	ATM
9	Kusuma	ATM

District	Mysuru	Sample Taluk	Nanjanagugu	Date	23-12-2020
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List of Participants

Sl. No	Name	Designation
1	Deepa BS	ADD
2	Ravikumar	BTM
3	Divyashree	ATM
4	Nnadini B	ATM
5	Sandesh M.Sosale	ATM

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6	Shruti RT	ATMA
7	Kumudha HP	DPO

District	Udupi	Sample Taluk	Karkala	Date	23-12-2020
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List of Participants

Sl. No	Designation
1	ADA
2	ADH
3	ADAH
4	Range forest officer
5	AD-Sericulture department
6	ATM
7	BTM

District	Madikeri	Sample Taluk	Virajpete	Date	23-12-2020
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List of Participants

Sl. No	Designation
1	ATM
2	BTM
3	All ATMA Staff

FGD at Village level with beneficiary & non beneficiary farmers

Sl. No	Date	District	Sample Taluk
1	01/06/2021	Udupi	Karkala
2	12/23/2020	Mysuru	Nanjanagud
3	12/21/2020	Mandya	Maddur
4	12/28/2020	Kodagu	Virajpete
5	31/12/2020	Hassan	Sakaleshpur
6	12/21/2020	Dakshina Kannada	Mangalore
7	12/20/2020	Dakshina Kannada	Mangalore
8	12/20/2020	Chikkamagaluru	Kadur
9	02/02/2021	Bengaluru Urban	Bengaluru North
10	01/30/2021	Chikkaballapura	Chikkaballapura
11	02/09/2021	Chitradurga	Holalkere
12	02/11/2021	Davanagere	Davanagere
13	01/28/2021	Kolar	Bangarpet
14	05-02-2021	Ramanagara	Ramanagara
15	02/06/2021	Tumkur	Koratagere
16	03/16/2021	Bidar	Bhalki
17	12/29/2020	Chamarajanagara	Chamarajanagara

ANNEXURE-08 Photos at a glance**Information Dissemination Programme-1- Shivamogga**

ಅಡಿಕೆ ಸಿಪ್ಪೆಯಿಂದ ಕಾಂಪೋಸ್ಟ್ ಮಾಡಲು ಬೇಕಾಗುವ ಸಲಕರಣೆಗಳು :

(ಒಂದು ಎಕರೆ ಚೌಕದಿಂದ ಉತ್ಪಾದಿಸಲು)

- (ಅ). ಒಣಗಿದ ಅಡಿಕೆಯ ಸಿಪ್ಪೆ ಹಾಗೂ ಇತರೆ ತ್ಯಾಜ್ಯ
 (ಆ). 20ಅಡಿ X 5ಅಡಿ X 5ಅಡಿ ಅಳತೆಯ ತೊಟ್ಟಿಗಳು (2ನಂ.)
 (ಇ). ಸೂಕ್ಷ್ಮಣು ಜೀವಿಗಳ ಸಂಕೀರ್ಣ (ಮೈರೊಟಿಕ್ ಸಾಬರ್‌ಕಾಜು ; ಪೆನೆರೊಕೇಟಿ ಕ್ರೈಮೋಸ್ಪೋರಿಯಂ):10 ಕೆ.ಜಿ.
 (ಈ). ಎರೆಹುಳುಗಳು : 10 ಕೆ.ಜಿ.
 (ಉ). ಯೂರಿಯ : 10 ಕೆ.ಜಿ.
 (ಊ). ಕೆಂಪು ಮಣ್ಣು : ಒಂದು ಟ್ರಾಕ್ಟರ್ ಲೋಡು
 (ಋ). ಸಗಣೆ ಬಗ್ಗಡ

ಕಾಂಪೋಸ್ಟ್ ತಯಾರಿಸುವ ವಿಧಾನ :

- * ಕಾಂಪೋಸ್ಟ್ ತಯಾರಿಕೆಗಾಗಿ ಭಾಗಶಃ ಒಣಗಿದ ಅಡಿಕೆ ಸಿಪ್ಪೆಯನ್ನು ಮಾತ್ರ ಉಪಯೋಗಿಸಬೇಕು. ಆದ್ದರಿಂದ ಹಸಿ ಅಡಿಕೆಯನ್ನು ಸುಲಿದ ನಂತರ ಬರುವ ಸಿಪ್ಪೆಯನ್ನು 2-3 ತಿಂಗಳವರೆಗೆ ಬಯಲಲ್ಲಿ ಒಣಗಿಸಬೇಕು. ಚಾಲಿ ಅಡಿಕೆ ಸಿಪ್ಪೆಯನ್ನು ನೇರವಾಗಿ ಉಪಯೋಗಿಸಬಹುದು.
- * ಗುಂಡಿಯ ತಳಭಾಗದಲ್ಲಿ ನೆಲದ ಮೇಲೆ ತೆಳುವಾಗಿ ಒಣ ಎಲೆ, ಸ್ವಲ್ಪ ಪ್ರಮಾಣದ ಕೆಂಪು ಮಣ್ಣು ಹರಡಿ, ಇದರ ಮೇಲೆ 1/3 ಭಾಗ ತುಂಬುವವರೆಗೆ ಅಡಿಕೆ ಸಿಪ್ಪೆಯನ್ನು ತುಂಬಿ. ನಂತರ ಒಂದು ಕೆ.ಜಿ. ಸೂಕ್ಷ್ಮ ಜೀವಿಗಳ ಮಿಶ್ರಣ, ಒಂದು ಕೆ.ಜಿ. ಯೂರಿಯಾ ಹಾಕಿ, ಸಗಣೆ ಬಗ್ಗಡ ಸಿಂಪಡಿಸಿ. ಪುನಃ ಎರಡು ಬಾರಿ 1/3 ಭಾಗದಷ್ಟು ಅಡಿಕೆ ಸಿಪ್ಪೆಯನ್ನು ತುಂಬಿ, ಈ ಮೊದಲೇ ಹೇಳಿದಂತೆ ಯೂರಿಯಾ, ಸೂಕ್ಷ್ಮ ಜೀವಿಗಳ ಮಿಶ್ರಣ ಮತ್ತು ಸಗಣೆ ಬಗ್ಗಡ ಹಾಕಿ, ಮೇಲ್ಭಾಗವನ್ನು ತೆಂಗಿನ ಸೋಗಿಯಿಂದ ಮುಚ್ಚಿ, ಸಾಧ್ಯವಾದರೆ ಚಪ್ಪರ ಮಾಡಿ, ಸೂರ್ಯನ ಬಿಸಿಲು ಭಾಗಶಃ ಬೀಳುವಂತೆ ಮಾಡಿದರೆ ಒಳ್ಳೆಯದು.
- * 2-3 ದಿನಗಳಿಗೊಮ್ಮೆ ನೀರನ್ನು ಹಾಕಿ ತೇವಾಂಶವನ್ನು ಕಾಪಾಡಿಕೊಳ್ಳಬೇಕು. ತಿಂಗಳಿಗೊಮ್ಮೆ 3 ತಿಂಗಳವರೆಗೆ ಗುದ್ದಲಿಯಿಂದ ಅಡಿಕೆ ಸಿಪ್ಪೆಯನ್ನು ತಿರುವಿ ಹಾಕುವುದು.
- * 3 ತಿಂಗಳ ನಂತರ ಪ್ರತಿ ಗುಂಡಿಗೆ 5 ಕೆ.ಜಿ. ಎರೆಹುಳುಗಳನ್ನು ಬಿಡಬೇಕು. ಪ್ರತಿ ವಾರ ತೆಳುವಾಗಿ ಸಗಣೆ ಬಗ್ಗಡ ಹಾಕಿ ಹಾಗೂ ತೇವಾಂಶವನ್ನು ಕಾಪಾಡಿಕೊಳ್ಳಬೇಕು. ಎರೆಹುಳು ಹಾಕಿದ ನಂತರ ಯಾವುದೇ ರೀತಿಯ ಮಿಶ್ರಣ ಮಾಡಬಾರದು. ಮಳೆಗಾಲದಲ್ಲಿ ನೀರು ನಿಂತರೆ ಕೆಳಭಾಗದಲ್ಲಿ ಒಂದು ಪೈಪ್ ಹಾಕಿ ಹೆಚ್ಚಾದ ನೀರನ್ನು ತೆಗೆಯಬೇಕು.

ಈ ರೀತಿ ಮೇಲ್ಕಂಡ ಎಲ್ಲಾ ಪ್ರಕ್ರಿಯೆಗಳನ್ನು ಮಾಡಿದ 6 ತಿಂಗಳಲ್ಲಿ ಉತ್ಪಾದಿಸುವ ಗೊಬ್ಬರ ತಯಾರಾಗುತ್ತದೆ.

ಅಡಿಕೆ ಸಿಪ್ಪೆಯಿಂದ ಕಾಂಪೋಸ್ಟ್ ಗೊಬ್ಬರದ ಸೋಪ್‌ಕಾಂಪೋಸ್ಟ್ ಅಂಶಗಳನ್ನು ನಿರೀಕ್ಷಿಸಲಾಗಿದೆ.									
SI No.		C:N Ratio	N (%)	P (%)	K (%)	Ca (%)	Mg (%)	OC	pH
1.	ಕೊಟ್ಟಿಗೆ ಗೊಬ್ಬರ	10:1	0.56	0.25	0.37	2.1	0.95	10.8	7.8
2.	ಅಡಿಕೆ ಸಿಪ್ಪೆಯ ಕಾಂಪೋಸ್ಟ್ (180 ದಿನದ ನಂತರ)	20:1	0.86	0.58	1.85	2.67	1.05	25.75	7.2

ಪಚ್ಚನ ತಾಂತ್ರಿಕ ಮಾಹಿತಿಗಾಗಿ :

ಸಮೀಪದ ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರ ,
ತಾಲ್ಲೂಕಿನ ಕೃಷಿ, ತೋಟಗಾರಿಕೆ ಇಲಾಖೆ ಹಾಗೂ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ

ಪುಟಿಸೆ : ಆತ್ಮ ಯೋಜನೆ 2019-20

Information Dissemination Programme-2 Shivamogga

- ಕೀಟದ ಮೊಟ್ಟೆ ಮತ್ತು ಹುಳುಗಳನ್ನು ಆರಿಸಿ ನಾಶ ಮಾಡುವುದು ಅಥವಾ ಸೀಮೆ ಎಣ್ಣೆ ಮತ್ತು ನೀರಿನ ಮಿಶ್ರಣದಲ್ಲಿ ಅದ್ದಿ ನಾಶ ಮಾಡುವುದು. ಸೈನಿಕ ಹುಳು ಕಂಡುಬಂದಲ್ಲಿ ಭಾಧಿತವಾದ ಸುಳಿಯಲ್ಲಿ ಒಣ ಮರಳನ್ನು ಹಾಕುವುದು.
- ಎಕರೆಗೆ 15 ರಂತೆ ಮೊಹಕ ಬಲೆಗಳನ್ನು ಬಳಸಿ ಗಂಡು ಪತಂಗಗಳನ್ನು ಹಿಡಿದು ಕೊಲ್ಲುವುದು.

ಜೈವಿಕ ನಿಯಂತ್ರಣ :

- ದ್ವಿದಳ ಧಾನ್ಯಗಳು ಅಥವಾ ಅಲಂಕಾರಿಕಾ ಹೂವಿನ ಗಿಡಗಳನ್ನು ಮಿಶ್ರ ಬೆಳೆಯಾಗಿ ಬೆಳೆದು ಪರಭಕ್ಷಕಗಳ ಸಂತತಿಯನ್ನು ಹೆಚ್ಚಿಸಿ ಜೀವ ವೈವಿಧ್ಯತೆಯನ್ನು ಕಾಪಾಡುವುದು.
- ಎಕರೆಗೆ 50,000 ಟ್ರೈಕೋಗ್ರಾಮಾ ಮತ್ತು ಟೀಲಿಸೋಮನ್ ಪರತಂತ್ರ ಜೀವಿಗಳನ್ನು ಬಿಡುಗಡೆಗೊಳಿಸಿ ಕೀಟದ ಮೊಟ್ಟೆಗಳನ್ನು ನಾಶಗೊಳಿಸುವುದು.
- ಸಸಿಯಿಂದ ಸುಳಿಯ ಹಂತದಲ್ಲಿ ತೇ.5 ರಷ್ಟು ಭಾಧಿತವಾದಲ್ಲಿ ತೇ.5ರ ಜೀವಿನ ಬೀಜದ ಕಣಾಯವನ್ನು ಅಥವಾ 5 ಮಿ.ಲಿ. ಅಜಾಡಿರೆಕ್ಟೆನ್ (1500 ppm) 1 ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಂಪಡಿಸಿ.

ರಾಸಾಯನಿಕ ಕ್ರಮಗಳು :

- 1 ಕೆಜಿ ಬಿತ್ತನೆ ಬೀಜಕ್ಕೆ 4ಗ್ರಾಂ ಸಯಂಟ್ರಿನಿಲಿಪ್ರೋಲ್ 19.8% + ಫಯೋಮೆಥಾಕ್ಸಾಮ್ 19.8 % ರಾಸಾಯನಿಕದಿಂದ ಬೀಜೋಪಚಾರ ಮಾಡಿ ಬಿತ್ತನೆ ಮಾಡುವುದರಿಂದ ಬಿತ್ತನೆ ಮಾಡಿದ 2-3 ವಾರಗಳ ಪರೆಗೆ ಹುಳುವಿನಿಂದ ರಕ್ಷಣೆ ನೀಡುತ್ತದೆ.
- ಫೋರೇಟ್ ಅಥವಾ ಕಾರ್ಬೋಫ್ಯೂರಾನ್ ಪರಳಹಳನ್ನು 4 ರಿಂದ 5 ಕೆಜಿ ಪ್ರತಿ ಎಕರೆಗೆ ಮರಳಿಸೋದಿಗೆ ಬೆರೆಸಿ ಗಿಡದ ಸುಳಿಗಳಿಗೆ 3 ರಿಂದ 4 ಹರಳಗಳು ಬೀಳುವ ಹಾಗೆ ಹಾಕುವುದು.
- ಸೈನಿಕ ಹುಳುವಿನ ಹತೋಟಿಗಾಗಿ 0.4 ಗ್ರಾಂ ಎಮಮೆಕ್ಸೆನ್ ಬೆಂಜೋಯೀಟ್ 5 % SC ಅಥವಾ 0.4ಮಿಲಿ ಕ್ಲೋರಂತ್ರನಿಲಿಪ್ರೋಲ್ 18.5% SC ಅಥವಾ 0.5 ಮಿಲಿ ಫಯೋಮೆಥಾಕ್ಸಾಮ್ 12.6 % + ಲ್ಯಾಂಬ್ಡಾಹೆಲೋತ್ರಿನ್ 9.5 %. ಪ್ರತಿ ಲೀಟರ್ ನೀರಿಗೆ ಬೆರೆಸಿ ಸಂಜೆಯ ಸಮಯದಲ್ಲಿ ಸಂಪಡಿಸಬೇಕು. ಎಕರೆಗೆ 200-250 ಲೀಟರ್ ಸಂಪರ್ಕಣಾ ಪ್ರಾವಣ ಬಳಸಬೇಕು.
- ವಿಷ ಪಾಚಾರವನ್ನು ಬಳಸಿ ಪರಿಣಾಮಕಾರಿ ಹತೋಟಿ ಸಾಧ್ಯ: 10 ಕೆಜಿ ಭತ್ತದ ತೊಡು, 2 ಕೆಜಿ ಬೆಲ್ಲ ಮತ್ತು 2-3 ಲೀಟರ್ ನೀರು ಬೆರೆಸಿ 24 ಗಂಟೆ ಕಳೆಯಲು ಬಿಡಿ. ನಂತರ 100 ಗ್ರಾಂ ಫಯೋಡಿಕ್ಸಾರ್ಬ್ ಕೀಟನಾಶಕವನ್ನು ಬೆರೆಸಿ ಅರ್ಧ ಗಂಟೆಯ ನಂತರ ಬೆಳೆಯ ಸುಳಿಯಲ್ಲಿ ಉದುವಿಸಬೇಕು.

ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಾಗಿ ಹತ್ತಿರದ ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರ ಅಥವಾ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕರ ಕಛೇರಿಯನ್ನು ಸಂಪರ್ಕಿಸುವುದು.

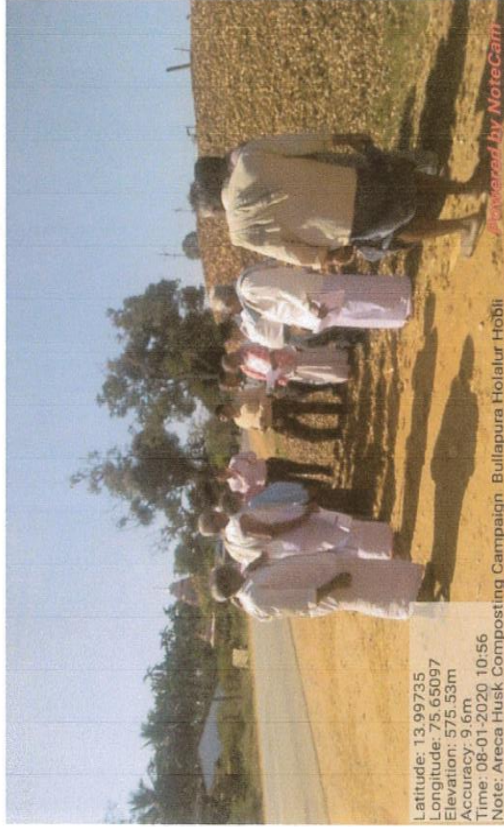
ಜಿಲ್ಲಾ ಪಂಚಾಯತ್, ಶಿವಮೊಗ್ಗ
 ಕರ್ನಾಟಕ ಸರ್ಕಾರ
 ಕೃಷಿ ಇಲಾಖೆ, ಶಿವಮೊಗ್ಗ


ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ ನಿರ್ವಹಣಾ ಸಂಸ್ಥೆ (ATMA)
ಮುನುಷಿನ್ ಜೋಕದ ಬಿಳಿಯೆಲ್ಲ ಸೈನಿಕ ಹುಳು
ಸ್ಪೊಡೋಪ್ಟೆರಾ ಫ್ರುಗಿಪೆರ್ದಾ
 (Spodoptera frugiperda)

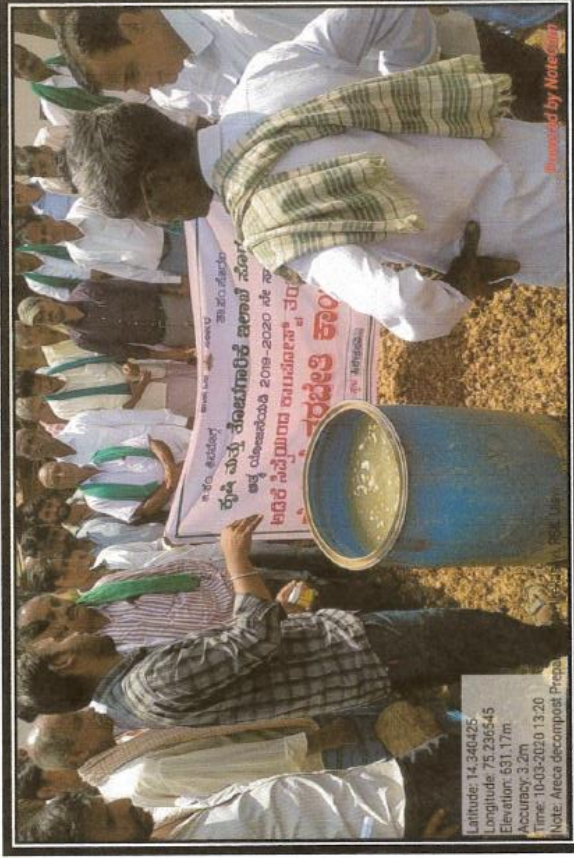


ಕೃಷಿ ಮತ್ತು ತೋಟಗಾರಿಕೆ ವಿಶ್ವವಿದ್ಯಾಲಯ
 Indian Council of Agricultural

ARECA HUSK COMPOSTING- Awareness Campaign



ARECANUT HUSK COMPOSING CAMPAIGN



- Dry the areca Husk
- Put it in a 20*3*2 feet trench/ beds
- Put 2-3 feet of husk & other wastes
- Drench it with waste decomposer for every 15 days & put wastes layer by layer.



Discussion with beneficiary farmer at Kodagu



Discussion with beneficiary farmer at Ramanagara



Discussion with District officials at Shivamogga



ANNEXURE-9 SUCCESS STORIES**Success Story-1**

S.No.	Components	Details	
1.	Name of the Farmer	Shridhar shetty	
2.	Address:	S/o Krishanappa shetty	
	Village	Karopady	
	Post	Kudpalthadka	
	District	Dakshina kannada	
	State	Karnataka	
3	Contact Details:	8197631784	
4	Details of the Farm (Size, Location, Water availability etc)	8 acres, farm pond, bore well	
5	Membership in Self Help Group Producer, Cooperative / Company, Cooperative Society etc. (Given details)	-	
6	Names of the Central Sector/ State Scheme utilized by the farmers and the period	2018-19 farm mechanization, soil fertility enhancement, 2018-19 ATMA trainings, Exposer visit	
7	Technologies / Good Agricultural Practices / Facilities / Benefit obtained with details.	Integrated farming system fishery, goat and sheep rearing, poultry, paddy cultivation, plantation crop etc. income security throughout the year because of IFS	
8	Details of result obtained due to the adoption of technologies 9 Season wise Crops grown, techniques adopted results achieved etc.)	Improved/ Present Production Technologies	Traditional / Pest Production Practices
	i Crop Production (q/hac)	24 tons fish obtained after 8 months rearing, fishes are transferred to 3 different tanks after each stage of their growth	10tons obtained in open pond rearing
	ii Cost of Production per hectare (Rs)	20,40,000	8,00,000
	iii Net profit per hectare (Rs)	12,00,000	3,00,00
	iv Number of Sprays		
	v Cost of Spray (Rs)	-	-
	vi Natural Resource saved/ conserved like Soil, water etc.	good	
	vii Product Quality Improvement	Good quality, much demand in market	
9	Marketing Strategy- Access to market (through Private, Cooperative, Control farming	Marketing in west Bengal through cooperative market	

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	etc.)	system	
	Export Market (details of exports made)		
10	Factors contributing to success	Personal interest not depending on labours,	
11	Any other relevant information		





Success story -2

Sl. No.	Components	Details	
1	Name of the Farmer	Prathibha Hegde	
2	Address:	w/o Sadananda hegde	
	Village	Kolavoor	
	Post	Gurupura	
	District	Dakshina kannada	
	State	Karnataka	
3	Contact Details:	9481506314	
4	Details of the Farm (Size, Location, Water availability etc)	5 acre, for lease 8 acre	
5	Membership in Self-Help Group Producers, Cooperative/Company, Cooperative Society etc.	Dharmasthala sangha ,navodaya,KMF .	
6	Names of the Central Sector/State Scheme utilized by the farmers and the period	Farm Mechanization and Soil Enrichment Scheme	
7	Technologies/Good Agricultural Practices/Facilities/Benifits obtained with details	Using of new variety of paddy crop like MO -4 Compare to Traditional variety and Mechanization	
8	Details of result obtained due to the adoption of technologies (Season-wise Crop grown, techniques adopted, result achieved etc.)	Improved/Present Production Technologies	Traditional/Pest Production Practices
	i. production(q/ha)	85	68
	ii. Cost of Production per hectare (Rs.)	55000	60000
	iii. Net profit per hectare (Rs.)	105000	75000
	iv. Cost: Benefit ratio	1:1.9	1:1.25
9	Marketing Strategy – Access to market (through Private, Cooperative, Contract farming etc.)	Through Private and Local Market	
	Export Market (details of exports made)	No	
10	Factors contributing to success	-Using of new variety -Proper usage of other Inputs -Using cono weeder for weed control -involving family members for agriculture activities. -using own power tiller for tillin -paddy machine transplantation - ATMA block level shresta krishika award winner.	
11	Any other relevant information	-In Soil enrichment Programme of the depatment farmer getting Organic mannure like City compost, Agrigold from the Department and also Lime Powder	

		<p>for neutralizing the Acidity problems of Soil</p> <p>-From Farm Mechanization Scheme under the State head farmer purchasing cono weeder ,power weeder, sprinkler and he use it for purpose.</p> <p>And also purchased POWER TILLER</p> <p>-And also using the Bio fertilizers like Trichoderma for Arecanut crops</p>
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Mechanized paddy transplantation in Prathibha Hegde field



Success story-3

SUCCESS STORY ON FARM ACT

Name of the farmer -C T Kuttappa

Village - Kirgoor
Taluk -Ponnampet
District -South Kodagu



A progressive farmer from Kirgoor village by name C T Kuttappa, s/o Lt Thimmaiah graduated and came back to his home town to look after his farming. Born in agriculture background Kuttappa used to help his father and shown his interest in field works since his childhood days and had he is a model to other farmers and has a knowledge in farming and moreover he goes for organic.

Kuttappa owns around 14 acres of paddy field and grow varieties like Thunga ,jeerigesanna ,jaya ,KHP 10, and he does transplanting using paddy transplanter and even got subsidy for that so he gets atleast a minimal expenses and this year he took up demonstration on varieties like IET24451, thunga and KPR 1 that the seeds were given by ARS farm ponampet .He takes up all agriculture activities from labour and does irrigation which he has got borewell .Along with paddy he has coffee,pepper, arecanut ,sapota ,jackfruit,mango ,litchi ,cardamom and other crops .He also own farm pond and rear fishes .He is interested in doing farming but the main problem that the farmer faces is market .

Now according to Farmers Produce Trade and Commerce a farmer is happy that he can sell his produce anywhere and has lot of freedom to sell on his own and make an affordable profit . Now its easy for the farmers to sell his produce like paddy seeds, coffee, pepper, arecanut, coconut, bananas, vegetables, fruits like outside the APMC yard, farm gate, collection sites, warehouses, trade production sites, cold storage and no fees or cess to be paid.

When products are sold through electronic marketing it has made easy for the farmers so there will be no bargain or any cheating is avoided. Now the farmer doesn't want to depend on anyone he can sell his produce on his own or can-do partner with seller to get assurance price.

According to Farmers Price Assurance and Agreement Act on Agricultural Services farmers can do contract before the harvest of the crop with traders, wholesalers, FPO, buying agency, Processors, Food processing units so the farmer is able to the fixed and correct price and does not face any problem. This type of trading and selling of produce is more profitable and

easier especially for small and marginal farmers.

The final conclusion and views of the farmer is that though the government has brought many changes after introducing the Farm act still no support price is fixed for some of the crops like paddy, coffee and pepper because farmers expenses more for labour, planting, weeding, harvesting, so the minimum support price that the farmer expense he doesn't get any profit so the minimum support price need to be fixed. Sometimes companies cheat the farmers in supplying seeds and manure for higher prices and that will not germinate at all, especially farmers need quality seeds. Farmers should grow all his produce on his own and the market should be accessible to sell his produce immediately.

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Annexure-10 Compliances on observation by KEA 52nd TCM

Compliance to the Technical Committee observation on Draft report of Evaluation of Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20.

Proceedings of 52nd Technical Committee Meeting of Karnataka Evaluation Authority held on 01-12-2021.

Sl. No	Subject	Page number
1	Quantify the outcomes of the meetings of ATMA committees and impact of the meetings along with the percentage of members not attending the committee meetings based on field evidence and non-participation of SC/ST and women beneficiaries in percentages Districts/Taluks.	Chapter 6.1.2 The Committees. Page number 64 -65 & 6.3.5 number of women /SC/ST/OBC farmers benefitted Page number 123
2	Mention the possibility of convergence of the scheme with other department schemes and involvement of FPOs, NGOs and SHGs and SC/STs in the report and recommendations.	Chapter 6.1.3 Convergence across the departments. Page number 73 & 6.2.5 Involvement of Different Stakeholders Page number 103
3	Analyze activity wise correlations with impact indicators for identifying core activities.	Chapter 6.5.2 Impact on cropping pattern Page Number -201
4	Provide best practices which have the potential of scalability	Chapter 6.3.7 Awards, Success Stories & Best Practices Page Number -134
5	Identify the reasons for low participation of NGOs and their registration in DARPAN Portal.	Chapter 6.2.4 participation of NGO's Page Number -102 & 103
6	Policy recommendations should be specific and must emanate from the results and discussion	
	Prioritization of 4-5 key activities having impact on the productivity and income	Chapter 6.1.1 Preparation Annual Action Plan (AAP):Page Number 49
	Interaction between stakeholder specifically, farmers with scientists and capacity of absorption of techniques.	Chapter 6.4.4 Farmer to farmer extension Page Number 170
	Special attention to be given while preparing the action plan by giving emphasis on low productivity, value addition and gross value added to agricultural workers, over exploited blocks and so on. This should be done in 39 critical GPs identified in SDG-2 analytics	Chapter 6.1.1 Preparation Annual Action Plan (AAP): Page Number-48-50
	Proposing a sustainable ATMA model including actors, interactions and actin situations, aiming for sustainable development of agriculture	Chapter 2.1 Physical and financial analysis Page Number-13
	ATMA implementation with special emphasis on promoting region specific technologies and	Chapter 6.1.1 Preparation Annual Action Plan (AAP):

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	IFS models	Page Number: -50
	Tying with KVKs, RSKs and Agri startups for effective outcomes.	Chapter 6.3.2 Support of SAMETI & KVK Page Number 109

Annexure-11 Compliances on observation by KEA and IA

Compliance to the observation on Final report of report of Evaluation of Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20

Email Received from Director (Evaluation) Karnataka Evaluation Authority on 20th Jan 2022 and From Independent Assessor suggestion received on 30th Jan 2022.

Sl. No	Subject	Page number
	Background	
1	Recent data of 2019-20 of Food grain production of India need to be included instead of 2015-16.	Chapter 2 incorporated in Page number 11
2	In proposing a sustainable ATMA model including actors, interactions, and action situations, aiming for sustainable development of agriculture, there is no link established for sustainable development of agriculture	Chapter 2.1 incorporated in page number 13-14
3	In evaluation matrix, key evaluation question A1, sub question No. 4 & 8, it is mentioned as technologies at 3... mention what they are	Chapter 2.4 incorporated in page number 20 & 21
	Results and Discussions	
4	Discuss with results the prioritization of 4-5 key activities having impact on the productivity and income and mention specific activities	Chapter 6.1.1 incorporated in page number 49
5	Elaborate with specific reasons for low participation and registration in DARPAN portal	Chapter 6.2.4 incorporated in page number 103
6	Mention the specific aspects or sectors of training received by the women farmers	Chapter 6.3.5 incorporated in page number 120-121
7	Discuss how ATMA interventions impacted the women participants and in which sector	Chapter 6.3.5 incorporated in page number 121
8	Elaborate the specific indicators for assessing the capacity of absorption of techniques during the stake holder interactions need to be developed and rephrase the sentence for more clarity as well.	Chapter 6.4.4 incorporated in page number 170
9	Estimate activity wise correlations with impact indicators for identifying core activities	Chapter 6.1.1- and 6.5.2 incorporated in page number 50 and 201
	Recommendations	
10	The recommendations are too general, give specific recommendations based on the results of the study (eg. Monthly meetings to be conducted. Where? Majority of the recommendations pertains to meetings and hence some more recommendations on interventions to be included as well)	The short-term practicable recommendations from Sl. No 1 to 14, 18, 20 and 21 have been recommended based on the results and discussions in the relevant chapters of the report.

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		<p>Recommendation number 15,16,17,19 have been proposed based on the inputs and suggestions received by the study team during interactions with officers of Agriculture and allied sectors keeping in view the overall improvement of the ATMA scheme in the state. The recommendations have been presented in a lucid manner to convey the matter effectively.</p>
	Success stories	
11	Success story on farm Act need to be rewritten for clarity	<p>Out of 155 success stories brought out by the ATMA in the state this success story has been included as a representative sample. The concerned officers will be informed to rewrite the success story more clearly. Success stories are included in Annexure-9 Page number 299-305</p>
	Reference	
12	Arrange the reference alphabetically	<p>Page number 205 Arranged as desired.</p>
	General Suggestions	
13	<p>Maintain uniformity in using upper and lower case in the sentence. Maintain uniformity in using Bold. Maintain uniformity in mentioning the Table No. (list of tables)</p> <p>Typographical mistakes</p> <p>Maintain uniformity in line spacing and font size</p> <p>Avoid unnecessary capital letters in between the sentence</p> <p>Avoid unnecessary full stop and commas in between the sentences.</p> <p>% to be written as Percent in the text</p>	<p>Attended as desired.</p>

Suggestion from Independent Assessor		
	The findings and recommendations are reasonably good. However, the executive summary has to be redrafted focussing on the discussions made in the various chapters of the report particularly major findings and recommendations/policy implications.	The Executive summary has been redrafted based on the suggestion
It would have been better if the study had focused on the following		
1.	Impact of the scheme on knowledge and awareness of the beneficiaries,	Chapter 6.1.4 incorporated in page number 80
2.	The reasons for low participation rate of SCs/STs and women	Chapter 6.3.5 incorporated in page number 123
3	Focus should have been more on outcomes rather than processes	The study has focused on the outcomes like awareness of farmers and their motivation, facilitating the farmers to adopt suitable technologies and better practices on their farm and facilitate changes in marketing strategies
4	Some case studies have been conducted for gaining knowledge from exposure visits and capacity building	Success stories are included in Annexure-9 Page number 299-305
5	There are repetitions in the report, this should be looked into.	We have observed in page number 6 and 7 and removed the repetitions

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Annexure-12 Compliances on observation by KEA and IA

Compliance to the observation on final report of Evaluation of Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2019-20.

Email received from Director (Evaluation) Karnataka Evaluation Authority on 17th Feb, 2022.

Sl. No	Subject	Page number
1	Remove the unnecessary punctuation (colon (:)) and colon dash (:--)) in the contents as well as the headings in the full report'	Changes effected wherever necessary.
2	6.1.6 NGOS should be NGOs	Attended changes in contents page and page no. 82.
3	Maintain uniformity in the colour for the 3 rd subheadings in the chapter 6	<p>Changed in chapter 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.5 & 6.1.6 Page number 47, 50, 65, 73, 80 & 82.</p> <p>Chapter 6.2.1, 6.2.2, 6.2.3, 6.2.4 6.2.5 & 6.2.6 Page number 85, 87, 95, 100, 103 & 104.</p> <p>Chapter 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5 & 6.3.6, 6.3.7 Page number 105, 106, 109, 110, 119,123 & 131.</p> <p>Chapter 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5. Page number 144, 145, 156, 160 & 170.</p> <p>Chapter 6.5.1, 6.5.2 Page number 172 & 189.</p>
4	Check content number under 6.2 after 6.2.2, 6.2.3 is missing	Attended to the changes.
5	Table 7: Heading should be in sentence case	Attended changes in table number 7 and contents page & page no. 74.
6	List of annexures (6. Check for agro spelling)	Attended changes in contents page and page no. 287.
7	Hypothesis is not included as per the IA comments	Attended in chapter 6.5.1-page number 187, Chapter 6.5.2-page number 195 & 199.
8	Check the page numbers mentioned in the annexure-11 in the suggestions mentioned and attended (it is not matching with the	Changed the page numbers accordingly.

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	page numbers in the report)	
9	Maintain uniformity in the font size in the figure of source of information	Attended to the changes.
10	Check the MGNREGA spelling in table 6	Attended table 6-page number 69.
11	Maintain uniformity in upper and lower case in table 6 (eg: Horticulture and veterinary college, Krishi mela etc.)	Attended to the changes in table number 6.
12	Remove unnecessary bold (eg: table 7, Sl. no 8-column no. 6)	Attended to the changes in table 7.
13	Maintain the uniform line spacing and font size in the complete report	Attended to the changes in entire report.
14	Numbers mentioned for each column in all the tables can be removed	Removed the columns from all the table.
15	Check for spelling ATMA	Changes attended in page number 185.
16	Target and no. of beneficiary farmers to be made clear in table 2	Attended changes in page 17.
17	Ample scope for improvement of language and correcting typo errors	Attended the changes wherever necessary.