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EDITORIAL

The design of Long Term Cooperative Credit Structures (LTCCS) comprising of Cooperative Agriculture and Rural Development Banks (ARDBs) as non-resource based lender dealing in a single product is the main constraint in their working. ARDBs face severe shortage of funds to meet the demand for credit from their members and end up with huge backlog of unmet demand for credit every year. Similarly, inability to meet production credit and working capital needs of long term borrowers results in under utilisation of assets affecting their income and repaying capacity. Almost all Committees appointed by Reserve bank of India(RBI)/Govt of India to study rural credit system and suggest improvement in its working considered measures to address the designed deficiencies of LTCCS. Hazari Committee (1975) recommended integration of both long term and short term structures in view of dual considerations of competitive strength and easy access of both ST and LT credit by farmers. But this recommendation could not be implemented as State Govts and cooperative movement were not in favour of integration. Later on ST and LT structures were merged in Andhra Pradesh in 1995 and in Chhattisgarh in 2014. There is little prospect of such merger in 13 States where the Long Term structure is fully functional at present. The Task Force headed by Jagdish Capoor (1999) recommended that ARDBs should work as full-fledged banks under BR Act 1949 and suggested merger with ST structure wherever this was not possible. Based on the above recommendation, RBI in May 2002 constituted a Working Group to consider conversion of ARDBs into universal banks. The Working Group, however, discontinued its work half way without submitting a report. Vaidyanathan Task Force II also suggested that "If on date or in the future, any entity within the structure fulfills the conditions necessary for obtaining a banking license, the banking regulator may consider it on merit."

RBI at present does not have a policy regarding issuing banking licence to State Co-operative Agriculture & Rural Development Banks (SCARDBs) or Primary Cooperative Agriculture & Rural Development Banks(PCARDBs). As per the provisions of Banking Regulation Act 1949, either a State Cooperative Bank, District Central Cooperative Bank or a Primary Cooperative Bank (Urban Cooperative Bank) are eligible to apply for banking licence. ARDBs, in fact can be treated at par with Primary Cooperative Banks for the purpose of giving banking licence. RBI has recently issued guidelines for licensing of Small Finance Banks (SFBs) in the Private sector for supply of credit to micro and small enterprises, agriculture etc. and providing banking services in unbanked and under-banked regions in the country. Provisions are also made for giving banking license to NBFCs and MFIs, which fulfil the conditions stipulated for Small Finance Banks. These guidelines however are silent on licensing differentiated banks in the cooperative sector like SCARDBs. SCARDBs not only fulfil the conditions stipulated for Small Finance Banks but also are already performing the same functions envisaged of Small Finance Banks. ARDBs, therefore suit better than NBFCs/MFIs for licensing as Small Finance Banks. Conversion of ARDBs into Banks is the only solution to address the design deficiencies of the structure and make them resource based institutions capable of meeting the credit and other financial services needs of the rural sector adequately. Though RBI did not agree to license SCARDBs as universal banks in 2002, now it is time to evolve a policy to license them as Small Finance Banks in order to give them a level playing field in the rural financial system.

K. K. Ravindran
Managing Editor

रोज़गार और सामाजिक समानता के लिए सहकारी मॉडल श्रेष्ठ

श्री राधा मोहन सिंह *

भारतीय राष्ट्रीय सहकारी संघ द्वारा पूरे देश में इस वर्ष सतत और समावेशी विकास के लिए सहकारी मॉडल विषय पर १४ नवम्बर, २०१४ से २० नवम्बर, २०१४ तक अखिल भारतीय सहकारी सप्ताह धूमधाम से मनाया गया। इस अवसर पर सहकारी समितियों ने अपने विकास एवं प्रगति के लिए भावी योजनाओं की रूपरेखा पर गहन चिंतन किया होगा तथा अपनी उपलब्धियों एवं समस्याओं के निदान को लेकर इस उत्सव में सहकारी नेतृत्व, कार्यकर्ता एवं सदस्य पूर्ण रूप से जुड़े होंगे।

अपने देश के लिए सहकारिता कोई नई बात नहीं है। अंग्रेजों की गुलामी में फंसने के पहले हजारों वर्षों से यहां के गांव सहकारिता के आधार पर अपने संसाधनों एवं श्रम शक्ति का उपयोग कुशलतापूर्वक करते आ रहे थे। अंग्रेजी राज होने के बाद अंग्रेजों ने सहकारिता को संस्थागत रूप देने का फैसला किया। इसके लिए १९०४ में कोआपरेटिव केन्द्रीय सोसायटी एक्ट बनाया गया। १९० वर्ष की अपनी यात्रा में आधुनिक सहकारिता ने विशाल वट वृक्ष का आकार ग्रहण कर लिया है। कश्मीर से कन्याकुमारी और पोरबन्दर से सिलचर तक सहकारिता का प्रसार हुआ।

आज भारतीय सहकारी आंदोलन विश्व के सबसे बड़े सहकारी आंदोलन के रूप में स्थापित है। भारत

में ५.८९ लाख सहकारी समितियां हैं, जो ग्रामीण स्तरीय समितियों से लेकर राष्ट्रीय स्तर के सहकारी संगठनों तक फैली हुई हैं। देश में सहकारी समितियों की कुल सदस्यता २४९ मिलियन से भी अधिक है। इसमें लगभग ९७ प्रतिशत गाँव तथा लगभग ७१ प्रतिशत कुल ग्रामीण परिवार शामिल हैं। आज भारतीय अर्थव्यवस्था में कृषि सहकारी साख द्वारा १६.९ प्रतिशत, उर्वरक उत्पादन का २९ प्रतिशत, चीनी उत्पादन का ४० प्रतिशत, बुनकर सहकारिताओं का ५४ प्रतिशत आदि का योगदान दिया जा रहा है। भारतीय सहकारिताओं ने अर्थव्यवस्था के कई क्षेत्रों में अपने को मजबूती से स्थापित किया है जैसे-डेयरी, बैंकिंग, चीनी, उर्वरक, विपणन, हैण्डलूम, मत्स्य, गृह निर्माण। सहकारी समितियों ने ऋण, उर्वरक, बीज जैसे इनपुट मुहैया कराकर किसानों की राह आसान की है।

आज डेयरी सहकारिता ने तो देश-विदेश में अपनी अलग पहचान बनाई है। जिसमें गुजरात के अमूल मॉडल की उल्लेखनीय भूमिका रही है। अमूल की सफलता को देश के अन्य हिस्सों में दोहराने के लिए १९६५ में राष्ट्रीय डेयरी विकास बोर्ड का गठन किया गया। गुजरात व महाराष्ट्र में डेयरी के साथ-साथ चीनी मिल एवं ऋण समितियों का विकास हुआ तो दक्षिण भारतीय राज्यों में मछली और वन आधारित समितियों का। भारतीय राष्ट्रीय

* माननीय केन्द्रीय कृषि एवं सहकारिता मंत्री, भारत सरकार। दिनांक २१ नवम्बर, २०१४ को ६१वें अखिल भारतीय सहकारी सप्ताह के समापन समारोह के अवसर पर संबोधन।
सामार: दी कोपरेटर (दिसम्बर २०१४ अंक से)।

सहकारी संघ देश में सहकारी आंदोलन को विकसित करने के लिए कठिन प्रयास कर रहा है तथा सहकारी क्षेत्र के सुदृढीकरण हेतु सदस्य संगठनों को शिक्षित करने, मार्गदर्शन देने और सहायता प्रदान करने में अहम भूमिका निभा रहा है। इसके अतिरिक्त राष्ट्रीय सहकारी प्रशिक्षण परिषद द्वारा सहकारी प्रशिक्षण को भारत सरकार की केन्द्रीय क्षेत्रक योजना द्वारा भी क्रियान्वित किया जा रहा है। वहीं इफको एवं कृमको द्वारा उर्वरक उत्पादन के क्षेत्र में देश में ही नहीं विदेशों में भी नये कीर्तिमान स्थापित किए जा रहे हैं जिससे सहकारिता विकास के अपने मुख्य उद्देश्य पर इन्होंने सफलतापूर्वक अपना ध्यान केन्द्रित करते हुए प्राथमिक स्तर की सहकारी समितियों को सहायक सेवाएं प्रदान करके, क्षमता का निर्माण करके, प्रबंध को पेशेवर बनाकर, मानव संसाधनों के विकास तथा अन्य संस्थाओं के साथ मिलकर कार्यक्रम आयोजित करने के अपने प्रयास जारी रखे। फिलहाल सहकारी समितियां भारतीय संविधान के राज्य सूची प्रविष्टि सं. ३२ के तहत राज्य का विषय है। अतः केन्द्रीय सरकार की भूमिका सहकारी समितियों के विकास में राज्यों को सहायता करने तक सीमित है।

भारत सरकार ने सहकारी समितियों के पुनरुद्धार करने के लिए कुछ ठोस उपाय शुरू किए हैं, ताकि उन्हें आर्थिक व्यवहार्यता और सदस्यों के सक्रिय सहभागिता से गतिशील लोकतांत्रिक संगठन बनाया जा सके जिससे वे प्रतिस्पर्धाक वैश्विक अर्थव्यवस्था की चुनौतियों का सामना कर सकें। सरकार द्वारा देश में सहकारी क्षेत्र के संवर्धन और विकास के लिए कई

उपाय किए गए हैं जिनमें अन्य बातों के साथ-साथ सहकारी समितियों के लिए राष्ट्रीय नीति तैयार करना, एमएमसीएस अधिनियम, २००२ का अधिनियम, वैद्यनाथन समितियों का कार्यन्वयन, संविधान (९७ वां संशोधन) अधिनियम का अधिनियमन करना शामिल है।

हमारी सरकार ने सहकारिताओं की अहमियत को समझते हुए एक नये बहुराज्यीय सहकारी समिति बिल, २०१४ को इसी शीतकालीन अधिवेशन में लाने का निर्णय लिया है ताकि देश की सहकारी समितियों को और अधिक सुदृढ बनाया जा सके और आधिक लोकतांत्रिक एवं पेशेवर ढंग से कार्य कर सकें। इससे सहकारिता में लोकनिष्ठा में वृद्धि होगी और अपरिहार्य राजनीतिक एवं नौकरशाही हस्तक्षेप से उन्हें मुक्ति मिलेगी और वे स्वैच्छिक एवं स्वतंत्र ढंग से कार्य कर सकेंगी।

सहकारी समितियों की वर्तमान निर्वाचन प्रणाली में परिवर्तन की अत्यंत आवश्यकता है ताकि परिवर्तन निष्पक्ष हो सके तथा वह सहकारी आंदोलन के प्रबंध को सशक्त कर सके तथा सहकारी समिति के बोर्ड में अनुसूचित जातियों या अनुसूचित जनजातियों के सदस्य भी हों और महिलाओं के लिए भी बोर्ड में सदस्यता आरक्षित की जाए तभी सही मायने में सहकारिताएं सतत एवं समावेशी विकास का मॉडल बनेगीं।

ग्रामीण अर्थव्यवस्था में सहकारी समितियों के महत्व पर विचार करते हुए, सरकार विभिन्न कार्यक्रमों के माध्यम से सहकारी समितियों की प्रगति करने के लिए प्रतिबद्ध है। इस हेतु

एन.सी.डि.सी. एक उत्साहवर्धक निकाय है जो सरकार द्वारा केवल इसी प्रयोजन के लिए तैयार किया गया है और इसे कार्यक्रमों के कार्यान्वयन के लिए आवश्यक विशेषज्ञता प्राप्त है। सहकारी समितियों के आर्थिक स्थितियों में सुधार लाने, क्षेत्रीय असंतुलन हटाने और कृषि विपणन में सहकारी विकास को तीव्र करने, प्रक्रिया प्रसंस्करण, भंडारण, कम्प्यूटरीकरण और कमजोर वर्गों के कार्यक्रम के लिए सरकार सहकारी समितियों के कार्यकलापों, वित्त पोषण, कृषि प्रसंस्करण, खाद्यान्न आदानों की आपूर्ति संबंधी विपणन, पौध रोपण/बागवानी समबन्धी फसलों, कमजोर वर्गों जैसे कि जनजातीय सहकारी समितियों, डेयरी, कुक्कट, पशुधन, मत्स्य, हथकरघा, क्वायर जूट, रेशम पालन, सहकारी समितियों आदि के विकास और सहकारी समितियों के कम्प्यूटरीकरण के लिए एनसीडीसी को सहायता प्रदान करती है। ११ वीं पंचवर्षीय योजना के दौरान, सरकार ने एनसीडीसी कार्यक्रमों के अंतर्गत ८१२ निकायों को ३१२ करोड़ रु. की सब्सिडी सहायता अनुमोदित की थी। १२ वीं पंचवर्षीय योजना के दौरान कुल परिव्यय २६०३५ करोड़ रु. है जिसमें ३५३५ करोड़ रु. कृषि सहकारिता की केन्द्रीय क्षेत्र एकीकृत योजना के लिए निहित है। एनसीडीसी ने शानदार रिकार्ड कायम किया है जहां ऋण की वसूली ९९.९२ प्रतिशत है।

सहकारी शिक्षा और प्रशिक्षण कार्यक्रम सहकारिता विकास का अहम अंग है। सहकारी समितियों को प्रभावपूर्ण तरीके से उनके संगठनों के प्रबंध के लिए संगठनात्मक क्षमताओं को अपनाने

हेतु सहकारी समितियों को सक्षम बनाने के लिए और आर्थिक नीतियों की चुनौतियों से निपटने के लिए एक सतत प्रक्रिया है यह निरंतर महसूस किया जाता है कि सहकारी क्षेत्र को जीवित करने और उसको प्रगति रखने के लिए गुणवत्ता जनशक्ति बहुत ही महत्वपूर्ण है जिसके लिए प्रशिक्षण और शिक्षा अनिवार्य अंग है। क्योंकि सहकारी प्रशिक्षण और शिक्षा कार्यक्रमों का उद्देश्य सहकारी कार्मिकों के विभिन्न वर्गों में मानव संसाधन का विकास करना है। सहकारी प्रशिक्षण कार्यक्रम राष्ट्रीय सहकारी प्रशिक्षण परिषद (एनसीसीटी) द्वारा अपने पांच क्षेत्रीय प्रबंधन संस्थानों, अलग-अलग राज्यों में अवस्थित १४ सहकारी प्रबंधन संस्थानों और पूणे स्थित वैकुंठ मेहता राष्ट्रीय सहकारी प्रबंधन संस्थान के माध्यम से सहकारी प्रशिक्षण कार्यक्रम चलाए जा रहे हैं।

सहकारी रूप से विकासशील राज्यों में सहकारी शिक्षा के तीव्रता संबंधी विशेष स्कीम के अंतर्गत अनौपचारिक दृष्टिकोण द्वारा निचली सतह से महिलाओं को सहकारी फील्ड में लाने के समग्र उद्देश्य से और समूह कार्यकलापों में महिला भागीदारी विकसित करने और चयनित ब्लॉकों में महिलाओं के सामाजिक आर्थिक सुधार के लिए चार अतिरिक्त महिला विकास परियोजनाएं जो शिमोगा (कर्नाटक), असका बेरहमापुर (उड़ीसा), इम्फाल (मणिपुर) और भोपाल (मध्य प्रदेश) में अवस्थित हैं, चलाई जा रही है। ११ वीं योजना के अंतर्गत राष्ट्रीय सहकारी प्रशिक्षण परिषद ने २,६८,६९९ व्यक्तियों को प्रशिक्षण दिया और भारतीय राष्ट्रीय सहकारी संघ (एनसीयुआई) ने अपने फील्ड

परियोजनाओं के माध्यम से २४,३०,६९९ व्यक्तियों को सहकारी शिक्षा प्रदान की। १२ वीं पंचवर्षीय योजना में सहकारी शिक्षा और प्रशिक्षण के लिए ११८.०८ करोड़ के परिव्यय का प्रस्ताव किया गया।

सदस्यों की शिक्षा नेतृत्व का पहला प्रमुख उत्तरदायित्व है और यह शिक्षा केवल उपदेश देकर नहीं दी जानी चाहिए बल्कि इस शिक्षा को व्यावहारिक रूप से दिया जाना चाहिए। अनेक सहकारी समितियों को व्यवसायिक प्रबंध के अभाव में हानि उठानी पड़ती है। इस संबंध में सहकारी नेताओं तथा प्रबंधकीय संवर्ग दोनों के लिए सही प्रशिक्षण प्रणाली अत्यावश्यक है। हालांकि देश में सीमित प्रशिक्षण संस्थान हैं जो यह प्रशिक्षण प्रदान करते हैं। परंतु मैं यह अवश्य कहूंगा कि उनकी संख्या बढ़ते सहकारी आंदोलन की बढ़ती हुई आवश्यकताओं, आधुनिक तकनीकों तथा अन्तर्राष्ट्रीय बाजार में बहुराज्यीय चुनौतियों को पूरा करने के लिए अपर्याप्त है। किसानों को बाजार सूचनाओं को प्राप्त करने आदि की क्षमता के लिए सहकारी क्षेत्र में मानव संसाधन के नेतृत्व तथा प्रबंध दोनों को संबंधित समितियों के सदस्यों के प्रति कार्यकुशल तथा उत्तरदायी बनाया जाना महत्वपूर्ण है।

इस प्रकार यद्यपि पूरे देश में सहकारिता का तेजी से फैलाव हुआ, लेकिन इसके साथ कई विसंगतियां भी पैदा हुईं। किसानों की तत्कालीन संवारने के नाम पर नये-नये घोटाले सामने आये हैं। यह प्रवृत्ति उत्तर भारत में अधिक रही। वहां राजनेताओं ने सहकारी समितियों को निजी जागीर में बदलकर उसे अपने

हितों को साधने का जरिया बना लिया। भ्रष्टाचार का नया अध्याय शुरू हुआ। इसका असर आम जन पर पड़ा। लोग अब सहकारी समितियों एवं बैंकों के कर्ज़ को दान मांगने लगे। इससे इन संस्थाओं की आर्थिक स्थिति गिरी। चार राज्यों के २३ जिला सहकारी बैंकों की कमजोर स्थिति को पुनर्जीवन देने हेतु अभी-अभी रु २३ करोड़ ७५ लाख की राशि का विशेष पैकेज के रूप में वित्तीय सहायता उपलब्ध कराने का माननीय प्रधानमंत्री जी के निर्देश पर भारत सरकार ने निर्णय लिया है। इसमें उत्तर प्रदेश के १६ जिला सहकारी बैंक हैं।

आज पूरे देश में बहुत सारी हथकरधा एवं पावरलूम सहकारी समितियां बंद होने की कगार पर हैं या जर्जर अवस्था में हैं इसकी चिंता माननीय प्रधानमंत्री जी ने की और हाल ही में इन सेक्टरों के पुनर्जीविकरण के लिए वस्त्र मंत्रालय, भारत सरकार ने यह निर्णय लिया है कि पूरे देश में हथकरधा एवं पावरलूम सेक्टर के लिए विभिन्न प्रकार के मानव संसाधन विकास कार्यक्रम चलाए जाएंगे एवं उन्नत तकनीकी प्रदान की जाएगी ताकि देश के बुनकर, शिल्पकार एवं कारीगर वर्ग इस योजना का अधिक से अधिक लाभ ले सकें और वे सब अपने-अपने क्षेत्र में मजबूती से जीवन निर्वाह कर सकें।

भारत इस समय दुनिया का सबसे नौजवान देश है, जिसकी ६५ प्रतिशत आबादी की उम्र २५ साल से कम है। लेकिन सबसे ज्यादा अफ़सोसजनक बात ये है कि अभी तक हम इस का उचित इस्तेमाल नहीं कर पाए हैं। इन युवाओं को सहकारिता से किस प्रकार जोड़ा जाए इस पर चिंतन करने की

आवश्यकता है तथा स्कूल, कालेजों और विश्वविद्यालयों में सूचना-प्रौद्योगिकी (आईटी), कम्प्यूटर सोशल नेटवर्क के साथ सहकारिता विषय की पढ़ाई शुरुआत करने की दिशा में प्रयास करना होगा ताकि सहकारी आंदोलन को इसका लाभ मिले और देश के विकास में युवा पीढ़ी महत्वपूर्ण भूमिका निभा सके।

राष्ट्र के विकास और भारतीय सहकारिता के विकास के लिए महिलाओं की प्रमुख भूमिका है। हमारे देश के मानव संसाधन में लगभग ५० प्रतिशत महिलाओं का समावेश है। महिलाओं को समाज की मुख्य धारा में लाना एवं उनकी निर्णय लेने की क्षमता का विकास करना ही सशक्तिकरण है। समाज में नारी स्वतंत्र हो, अथवा सम्मान खोए बिना वे अपने लक्ष्यों को प्राप्त कर सके तभी देश के विभिन्न भागों में महिलाओं द्वारा सहकारिता के माध्यम से शुरु किए गए विविध आर्थिक क्रियाकलापों और उद्यमों का विकास हो सकता है।

एक और सहकारिता की बुनियाद हिल रही है तो दूसरी और सहकारिता की ज़रूरत बढ़ती जा रही है क्योंकि इस उदारीकरण के दौर में विकास दर अपने भीतर ढेर सारी विसंगतियों को समेटे हुए है। क्षेत्रीय विषमता तेजी से बढ़ रही है। आज क्षेत्रीय विषमता के साथ, गरीबी, बेरोजगारी, भुखमरी का तोड़ सहकारिता ही है। बशर्ते इसे बदलते जमाने के साथ ढाला जाए।

सहकारिता में अंतरिक लोकतंत्र मजबूती से स्थापित किया जाए। कार्यप्रणाली में परिवर्तन कर पूँजी निर्माण, बैलेंस शीट में सुधार, सूचना प्रौद्योगिकी

का अधिकाधिक इस्तेमाल, व्यावसायिक प्रबंधन में सदस्यों की भागीदारी जैसे सुधारात्मक उपाय करने होंगे।

भारत सरकार सहकारी सशक्तिकरण, गांव के किसान की गरीब की चिंता करने से पीछे नहीं हटेगी जिसके लिए हम प्रतिबद्ध हैं एवं इसके लिए यथासंभव सृजनात्मक उपाय किये जाएंगे।

सबसे बड़ी ज़रूरत इस बात की है कि सहकारी समितियों में राज्य सरकारों का हस्तक्षेप खत्म किया जाए। गुजरात में सहकारिता इन बुराईयों से एक बड़ी सीमा तक मुक्त है। हम सब इस मॉडल को अपनायें तभी ग्रामीण भारत की तस्वीर बदल सकती है। सबका साथ लिए बिना सबका विकास संभव नहीं है। सबका साथ, सबका विकास हमारी सरकार की प्राथमिकता है।

अंत में, मैं भारतीय सहकारी संघ को बधाई देता हूँ कि उन्होंने सहकारी सप्ताह के समापन समारोह के अवसर पर मुझको यहां आने का मौका दिया और अपने विचार आप सबके सम्मुख रखने का अवसर दिया। मैं उम्मीद करता हूँ कि सहकारी सप्ताह के सात दिनों पर आयोजित विभिन्न कार्यक्रमों से उभरी विभिन्न सिफारिशों पर आवश्यक कार्यवाही की जाएगी ताकि सहकारी आंदोलन को अधिक सशक्त एवं प्रभावी ढंग से देश की सामाजिक, आर्थिक उन्नति में महत्वपूर्ण भूमिका निभाने में कामयाब हो पायेगा। जय हिन्द, जय सहकार।



**THE HARYANA STATE COOPERATIVE AGRICULTURE
AND RURAL DEVELOPMENT BANK LTD.**
Sahakarita Bhawan, Bay No. 31-34, Sector - 2, Panchkula

The Haryana State Cooperative Agriculture and Rural Development Bank Ltd., is the specialised institution in the State, which caters to the Long Term credit needs of the farmers for the upliftment of the economic position of the agriculturists and allied fields.

The bank advances Long Term loans to the farmers for the following purposes :-

Scale of finance and periodicity of Major Sectors

Farm Sector

Sr.No.	Name of the Scheme & Purpose	Period	Scale of finance
1.	Minor Irrigation	9 Years	₹75,000 to ₹4,00,000
2.	Land Development	-do-	90% of the actual cost
3.	Farm Mechanisation	5-9 Years	85% of the actual cost
4.	Purchase of Agriculture Land	10 Years	Upto ₹12.00 Lacs
5.	Horticulture/Farm Forestry	5-10 Years	₹25,000 to ₹3,55,000 per Hectare
	Medicinal & Aromatic Plants	-do-	90% of the actual cost
6.	Animal Husbandary	5-7 Years	90% of the actual cost
7.	Construction of Rural Godowns	Upto 9 Years	90% of the actual cost

Non Farm Sector

Sr.No.	Name of the Scheme/Purpose	Period	Scale of finance
1.	Rural Housing	Upto 10 years	Upto ₹6.00 lacs
2.	Marriage Palaces	Upto 10 years	90% of the actual Cost
3.	Community Halls	Upto 10 years	90% of the actual Cost
4.	Village Cottage Industry	Upto 10 years	90% of the actual Cost
5.	Public Transport Vehicles	Upto 5 years	85% of the actual Cost
6.	Rural Educational Infrastructure	Upto 10 years	90% of the actual Cost
7.	Other SSI units	Upto 10 years	90% of the actual Cost

Rate of Interest

The rate of interest to be charged from the ultimate borrowers has been reduced to 13.5% P.A. w.e.f. 9.6.2014 for all type of loans advanced by the DPCARDBs in the state of Haryana.

Note:-

For further details, kindly contact The Haryana State Coop. Agri. & Rural Dev. Bank Ltd., Panchkula or the District Coop. Agri and Rural Dev. Banks at District level and its branches at Tehsil & Sub-Tehsil level in the State.

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Indoor air quality assessment in rural homes

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In rural India the chulhas are the main cooking unit. The traditional *chullas* not only consumes more fuel but also produces heavy smoke. The provision of air that is safe to breathe is just as important as safe water or food yet many millions of people are obliged to breathe air that is heavily polluted with bio-mass emission products. Hence, the present study was undertaken to assess the indoor air quality with traditional and improved *chullas*. Experimental work was carried out to assess the indoor air quality while using traditional and improved *chullah*. Improved *chullah* was constructed purposively in the 10 household who did not had in their household and indoor air quality was assessed before, during and after the cooking activity. Mean temperature of ten household where cooking was carried out on traditional *chullah* was 30°C whereas for improved *chullah*, it was 32°C. Average relative humidity was 49.1 percent and 42 percent for traditional and improved *chullah* respectively. The average light intensity in the environment of traditional *chullah* and improved *chullah* was almost similar i.e. 301 and 303 lux respectively. SPM, SO₂ and oxides of nitrogen present in kitchen having traditional *chullah* were significantly higher than the kitchen having improved *chullah*. with use of improved *chullah* indoor air quality has improved as there was reduction in quantity of SPM, SO₂ and oxides of nitrogen.

Key words: traditional *chullah*; improved *chullah*; SPM, SO₂ and oxides of nitrogen

Introduction

In India over 70% of the population live in rural areas. For cooking purpose, household sector relies heavily on traditional *chullah*. These *chullas* are thermally as well as environmentally inefficient and moreover are prone to damage because these are made from mud and baked mud which is quite a good insulator but at the same it needs to be very thick as mud can

crack allowing heat to escape that way and hence creating drudgery and heat problems to the users.

The traditional *chullas* not only consumes more fuel but also produces heavy smoke. Susan (1996) stated that wood smoke is as bad as cigarette smoke. Tobacco smoke and wood smoke are similar mixtures in many ways. Suspected carcinogens in cigarette smoke, such as benzo(a)pyrene and formal-

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dehyde, are also present in wood smoke. Villagers are unaware of aftermath consequences and damage caused by indoor air pollution due to burning of fuel wood. Moreover due to increase in population, houses are getting smaller in size and do not have proper ventilation which is harmful for the health. In many cases doctor have repeated that the women suffer from cough, asthma and various problems of lungs and even results in death (Lakshmi and Jajamala, 2004). A study on respiratory diseases revealed that a woman inhales smoke equal to 20 cigarettes per day while cooking on traditional *chullah*. The amount of total suspended particles present inside a kitchen has 1000 times' greater chance to penetrate deep into our lungs than the suspended particles outside (Hildebrand, 2007). Respiratory diseases are four times more in those women who prepare food on traditional *chullah* by using cow dung cakes as compared to cooking food on LPG (Mani, 1996).

So the need of the hour is to pay more attention to user needs, which besides saving of fuels and, directly or indirectly, saving of time due to the *chullah*' higher thermal efficiency. Use of improved *chullah* can also lead to cooking comfort, smoke free kitchens, convenience, health and safety, less exposure to heat resulting in a better work environment, protection from burn injuries and fire. It is important to minimize

the health hazards arising from indoor pollution. Hence the study was carried out to assess the indoor air quality while cooking with traditional *chullah* and improved *chullah*.

Methodology

The experimental work carried out in the Kharar village of phase 1 as there were maximum users of improved *chullah*. Ten respondents were selected from village Kharar, who were willing to cooperate, physically fit and did not had improved *chullah* in their household. Experimental work was carried out to assess the indoor environmental while using improved *chullah*. Improved *chullah* was constructed purposively in the 10 household who did not had in their household. In order to carry out the experiment, half kilogram of wheat flour was taken and dough was made to make the chapatti on traditional as well as improved *chullah*. Firstly the chapatti making was carried out on traditional *chullah* and then rest of ten minutes was given and chapatti making was carried out on improved *chullah*.

Measurement of indoor air quality:

Environmental parameter, were taken on both the *chullahs* before and after the activity.

At the work place of cooking temperature, relative humidity, light and smoke analysis was

measured with the help of following equipment.

Parameter	Equipment
Temperature	Thermometer
Humidity	Hygrometer
Light	Luxmeter
Smoke	High volume air sampler

These observations were taken for both the *chullahs* before and after the activity. Replication of three observations was taken for each experiment.

Smoke: The incomplete combustion of fuels in *chullah* releases smoke containing a complex and unstable mixture of hundreds of chemicals. The smoke released from the traditional and improved *chullah* in households was measured by using High volume air sampler provided by Pollution Control Board, Hisar.

The main components of smoke thought to be of potential importance in their effect on health are:

- (i) Suspended Particulate Matter (SPM)
- (ii) Sulphur di Oxide (SO_2)
- (iii) Oxide of Nitrogen (NO_2/NO^3)

These measurements were taken

- Before cooking
- During cooking
- After cooking.

Three replications were taken for each parameter. The analysis of smoke released from the traditional *Chullah* as well as improved *Chullah* was done in terms of suspended particulate matter, sulphur di-oxide and oxide of Nitrogen.

Results

The indoor air quality was assessed in terms of ;

- Temperature,
- Humidity
- Light
- Smoke

Comparative analysis of environmental parameter improved *chullah* with traditional *chullah*

Temperature: As per the data Table-1 showed that the mean temperature of ten household was $30 \pm 2^\circ\text{C}$ where cooking was carried

Table 1: Comparative analysis of environmental parameter improved *chullah* with traditional *chullah* (Temperature, Humidity and Light)

N=10

Sr. No.	Parameter	Traditional <i>chullah</i>	Improved <i>chullah</i>	Difference
1	Temperature	30.0 ± 2	32.0 ± 4	1.8
2	Humidity	49.1 ± 10	42.0 ± 9	6.9*
3	Light	301.0 ± 32	303.0 ± 27	-1.4

*Significant at 0.05% of probability level

out on traditional *chullah* whereas mean temperature of household where cooking was carried out on improved *chullah* was $32 \pm 4^{\circ}\text{C}$.

Humidity: Average relative humidity was least in the household where cooking was carried out on improved *chullah* i.e. 42 ± 9 percent whereas 49.1 ± 10 percent in the household environment where cooking was carried out on traditional *chullah*. Mean humidity followed an opposite trend that of mean temperature and as temperature increases humidity decreased.

Light: Data in the table also shows that the average light intensity in the environment of traditional *chullah* and improved *chullah* was almost similar i.e. 301 ± 32 and 303 ± 27 lux respectively.

The paired 't' test proved that relative humidity of the household environment where cooking was done on traditional *chullah* was higher and the result was significant at 5 percent level of significance.

Comparative analysis of indoor air quality with traditional and improved *chullah*

Smoke contains many chemicals (e.g., nitrogen oxides, sulfur oxides and suspended particulate matter) and particles that irritate respiratory tracts and lung, adversely affect the host's defense systems against pathogens, and elevate the risk of respiratory tract infections (Smith et al. 2000). Smoke may also increase the severity of respiratory

infections by causing inflammation in pulmonary airways (American Thoracic Society 1996). Smoke inhalation means breathing in the harmful gases, vapors, and particulate matter contained in smoke. Smoke inhalation impairs the body from acquiring oxygen from the environment and its ability to deliver and use oxygen at every step of respiration.

Analysis of indoor air quality of traditional *chullah* and improved *chullah* was done.

The incomplete combustion of fuels in *chullah* releases smoke containing a complex and unstable mixture of hundreds of chemicals.

The analysis of the **indoor air quality was done in terms of** smoke released from *Chullah* in terms of:

- (i) Suspended Particulate Matter (SPM)
- (ii) Sulphur di Oxide (SO_2)
- (iii) Oxide of Nitrogen (NO_2/NO_3)

Suspended particulate matter

Before cooking: Before cooking activity it was observed that SPM in the kitchen having traditional *chullah* and improved *chullah* were 549, and $407 \mu\text{g}/\text{m}^3$ respectively.

During cooking: During cooking, in the smoke of traditional *chullah* and improved *chullah*, the SPM present was 2426 and $924 \mu\text{g}/\text{m}^3$ respectively.

Table 2: Comparative analysis of suspended particulate matter released from improved *chullah* and traditional *chullah*

N=10

Sr. No.	Suspended particulate matter	Permissible limit ($\mu\text{g}/\text{m}^3$)	Traditional <i>chullah</i>	Improved <i>chullah</i>	Difference (%)
1.	Before cooking	-	549-(10)	407-(18)	26**
2.	During cooking	500	2426+(385)	924+(84.8)	62**
3.	After cooking	-	898+(34)	676+(35)	25**

+ indicate increase in percentage

- indicate decrease in percentage

** indicates highly significant $\mu\text{g}/\text{m}^3$ and 407 $\mu\text{g}/\text{m}^3$ respectively.



Smoke analysis during cooking

After cooking: After cooking, it was observed that in smoke of traditional *chullah* and improved *chullah*, the SPM present was 898 and 676 $\mu\text{g}/\text{m}^3$ respectively.

Suspended particulate matter observed in the kitchen having traditional *chullah* before cooking was 26 percent more than that present in the kitchen having improved *chullah*. On comparing with permissible limits the SPM of improved *chullah* was lower than the permissible limit but SPM of traditional *chullah* was higher than permissible limit. During cooking the SPM for traditional *chullah* was found to be 62 percent more than



Smoke analysis before cooking

SPM in smoke in improved *chullah*. In smoke of traditional *chullah* SPM was near about five times more than the permissible limit and improved *chullah* the SPM was two times more than the permissible limit. After cooking the SPM for traditional *chullah* was found to be 25 percent more than SPM in smoke in improved *chullah*. It is clearly indicated from the table that in smoke of traditional *chullah* and improved *chullah* SPM present was more than permissible limit after cooking. The use of improved *chullah* is very beneficial for the rural women because, prolonged exposure to high level of the pollut-

ants released by the traditional *chullah* has an adverse impact on the health of the women, who spends their time cooking on traditional *chullah*. The effect could include eye problem, respiratory problem, chronic bronchitis and lung cancer etc. The 't' test proved that SPM present in kitchen having traditional *chullah* was significantly higher than kitchen having improved *chullah* at one percent level of significance. (Table-2) Mehta (2002) analyzed the smoke of traditional *chullah* and improved *chullah*, there was 45.28% decrease in suspended particulate matter.

Sulphur dioxide

Before cooking: Before cooking, it was observed that SO₂ present in the kitchen having traditional *chullah* and improved *chullah* was 17.44 and 14.2 µg/m³ respectively (Table-3)

During cooking: During cooking, observation revealed that SO₂ present in the smoke of traditional *chullah* and improved *chullah* was 59 and 26 µg/m³ respectively. SO₂

released from smoke of improved *chullah* before, during and after the cooking was in permissible limit but for traditional *chullah* it was permissible limit before and after cooking and at the edge of permissible limit during cooking.

After cooking: After cooking, observation revealed that SO₂ present in the smoke of traditional *chullah* and improved *chullah* was 28 and 16 µg/m³ respectively.

The quantity of sulphur dioxide emitted in kitchen having traditional *chullah* before cooking was 19 percent more than in kitchen having improved *chullah*. The SO₂ present in both the kitchens was observed to be lower than the permissible limit. During cooking sulphur dioxide present in kitchen having traditional *chullah* was 56 percent more than in kitchen having improved *chullah*. After cooking sulphur dioxide present in kitchen having traditional *chullah* was 45 percent more than in kitchen having improved *chullah*. The SO₂ was 52 percent lower and in smoke of improved *chullah*, SO₂

Table 3: Comparative analysis of sulphur dioxide released from improved chullah and traditional chullah

Sr. No.	Sulphur dioxide	Permissible limit (µg/m ³)	Traditional <i>chullah</i>	Improved <i>chullah</i>	Difference (%)
1.	Before cooking	-	17.44-(70)	14.2-(76)	19**
2.	During cooking	60	59-(0.98)	26-(56.6)	56**
3.	After cooking	-	28-(52)	16-(74)	45**

+ indicate increase in percentage

- indicate decrease in percentage

** indicates highly significant

was 74 percent lower than the permissible limit. Sulphur dioxide also has harmful effect on the users. As using the improved *chullah* reduces the exposure of women to sulphur dioxide. The 't' test proved that SO₂ present in kitchen having traditional *chullah* was significantly higher than kitchen having improved *chullah* at one percent level of significance (Table-3). Mehta (2002) analyzed the smoke of traditional *chullah* and improved *chullah*, there was 68% decrease in sulphur dioxide content in the smoke released from the improved *chullah* in comparison to the traditional *chullah*.

Oxides of nitrogen

Before cooking: The oxides of nitrogen (NO₂/ NO₃) observed in the kitchen having traditional *chullah* and improved *chullah* was 37.07 and 13.8 µg/m³ respectively.

During cooking: The oxides of nitrogen (NO₂/ NO₃) observed in the smoke of traditional *chullah* and improved *chullah* was 80 and 43 µg/m³ respectively i.e.

After cooking: After cooking the oxides of nitrogen (NO₂/ NO₃) observed in the smoke of traditional *chullah* and improved *chullah* was 39 and 19 µg/m³ respectively.

Oxides of nitrogen present in kitchen having traditional *chullah* before cooking was 63 percent more than kitchen having improved *chullah*. NO₂/ NO₃ observed in both the kitchen were lower than the permissible limit. During cooking kitchen having traditional *chullah* was 47 percent more than present in smoke of improved *chullah*. The observation revealed that in smoke of traditional *chullah*, NO₂/ NO₃ was 34 percent more than the permissible limit while in smoke of improved *chullah* NO₂/ NO₃ was 28.3 percent less than permissible limit during cooking. After cooking oxides of nitrogen present in kitchen having traditional *chullah* was 53 percent more than present in smoke of improved *chullah*. The observation revealed that in smoke of traditional *chullah*, NO₂/ NO₃ was 35 percent lower than the permissible

Table 4: Comparative analysis of oxides of nitrogen released from improved chullah and traditional chullah

Sr. No.	Oxides of nitrogen	Permissible limit (µg/m ³)	Traditional <i>chullah</i>	Improved <i>chullah</i>	Difference (%)
1.	Before cooking	-	37.07-(38)	13.8-(77)	63**
2.	During cooking	60	80+(34)	43-(28.3)	47**
3.	After cooking	-	39-(35)	19-(69)	53**

+ indicate increase in percentage

- indicate decrease in percentage

** indicates highly significant

limit while in smoke of improved *chullah* NO_2 / NO_3 was 69 percent less than permissible limit during cooking. The 't' test proved that oxides of nitrogen emitted in kitchen having traditional *chullah* was significantly higher than kitchen having improved *chullah* at one percent level of significance.

The results were same for the oxides of nitrogen as sulphur dioxide, except for during cooking which was not in permissible limit.

On the basis of smoke analysis it can be concluded that in improved *chullah* indoor air quality has improved as there was reduction in quantity of SPM, SO_2 and oxides of nitrogen.

Conclusion

The mean temperature of ten households was 30°C with tradi-

tional *chullah* whereas mean temperature with use of improved *chullah* was 32°C . Average relative humidity was least in the household where cooking was carried out on improved *chullah* i.e. 42 percent whereas 49.1 percent in the household environment where cooking was carried out on traditional *chullah*. The average light intensity in the environment of traditional *chullah* and improved *chullah* was almost similar i.e. 301 and 303 lux respectively.

In traditional *chullah* smoke the suspended particulate matter, sulphur di-oxide and oxides of nitrogen were present in more quantity rather than improved *chullah* smoke. Hence the indoor air quality was shoddier in the households using the traditional chulha so affecting their health.

Reference

- American Thoracic Society, Committee of the Environmental and Occupational Health Assembly. 1996. Health effects of outdoor air pollution. *Am J Respir Crit Care Med.* 153:350
- Hildebrand, A. 2007. Indoor air pollution is the biggest killer. *Times of India.* March 22.p.5.
- Lakshami, R. and Jajamala, M. 2004. Modern women as energy savers. *Social welfare.* 51(3):24.
- Mani, D. 1996. Pollution by traditional *chullah* and their remedies. *Kurukshetra.* 42 (2): 44.
- Mehta, M. 2002. Developed and refinement of existing *chullah* for enhancing performance. Ph.D. Thesis, Submitted to HAU Hisar.
- Smith, K.R., Samet, J.M., Romieu, I. and Bruce, N. 2000. Indoor air pollution in developing countries and acute lower respiratory infections in children. *Thorax.* 55:518532.
- Susan, M.Z. and Meryl, H.K. 1996. Indoor air pollution: Acute adverse health effects and host susceptibility. *Environmental health.* pp.27-28.



THE GUJARAT STATE COOP. AGRICULTURE AND RURAL DEVELOPMENT BANK LTD.

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KHETI BANK

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The Bank was established in 1951 to extend long term and medium term loans to farmers for agriculture and allied agricultural activities through 176 branches and 17 district offices located at each taluka places and district places respectively in the State of Gujarat.

THE BANK FINANCES FOR :

Farm Mechanisation:	Tractor, Thresher set and other implements etc.
Horticulture / Plantation:	Mango, Chickoo Plantation etc.
Land Development :	Land levelling, Land reclamation etc.
Non Farm Sector:	Small scale industries, Cottage industries including service sector, Rural housing, SRTOs, Rural godowns, APMCs, Cold storage, Consumer loan, Gold Loan etc.
Minor Irrigation:	Construction/repair Loan of irrigation well, Shallow tube well, Deep tube well, Installation of pumpsets, Pipelines, Lift irrigation, Drip irrigation, Check dams, Sprinkler irrigation etc.
Kissan Credit Card:	KCC for Purchase of Fertilizers, pesticides, equipments and maintenance, and payment of electricity bills etc. It is a medium term credit requirement of its borrowers who are regular in their repayment obligation to the Bank.
Rural Housing:	Construction of new houses, repairing and renovation of old houses.
Animal Husbandry :	Dairy development, Cattle rearing, Cattle sheds, Bullock cart, Sheep & Goat rearing, Poultry, Sericulture, Fisheries etc.

Financial Details of the Bank		(₹ in Crores)	
Sr. No.	Details	31.03.2012	31.03.2013
1	Owned Funds	477.03	511.94
2	Loans Disbursed	178.62	190.09
3	Fixed Deposit Outstanding	152.14	205.59
4	Profit	37.25	37.52
5	Dividend	12%	12%

Bank accepts FD at following rate of interest.

1 year & 2 year 9.25% p. a 3 years and above 9.50% p. a.

Bank accepts Thrif Deposits at 5% - 0.5% additional interest for senior citizen.

Salient Features

- | | |
|---|--|
| <ol style="list-style-type: none"> Interest payable: Quarterly/half yearly and yearly as per demand Monthly Income Scheme is available FD outstanding is within the own fund limit. All the loans issued by the Bank are theoretically recoverable since they are | <ol style="list-style-type: none"> secured by registered mortgage of land and as such FDs mobilized by the Bank are fully secured. Loan against FD to the extent of 75% of FD is available. TDS is not deducted on maturity of FDs. |
|---|--|

DIVIDEND ON SHARE IS REGULARLY PAID TO SHARE HOLDERS.

FOR FURTHER DETAILS, PLEASE CONTACT US OR THE BRANCHES OF OUR BANK IN THE STATE.

Shri Kanubhai M. Patel
Chairman

Shri Govabhai H. Rabari
Vice Chairman

Shri V. M. Chaudhari
Managing Director (I/C)

Empowerment of women through entrepreneurship development

Ms. Sahana Kiran*

Rashmi Nayyar of Ewas, did her M.Sc. in Chemistry and master of computer management. She could easily get a job in IT field, but she had a burning desire to be her own boss. She set up Ekta Computer and Graphics where she teaches computer to over 25 students a day and trains young students from different spheres of society as well. The above examples of self-made entrepreneurs are a just a pick from thousands of women who have taken to Entrepreneurship rather than getting in to some or the other job.

Women constitute almost half of the total population in the world. In traditional society they were confined to the four walls of houses. Their representation in gainful employment was comparatively low. In modern society they come out of the four walls to participate in all sorts of activities. The global evidence boosts the fact that women have been performing exceedingly well in different spheres of activities. Now they have started plunging into industry also and are running their own enterprises successfully. In most of the countries, average earning of women are lower than those of men. In several developing countries marriage is the only career for most

women. Women have confined their activities to selected professions such as education, nursing and office work. Women are taught to depend upon others to limit their ambitions and to avoid exposure and risk. Such orientation and role prescription inhibit development of self-confidence, innovativeness, niche and risk taking ability, which are essential for an entrepreneurial carrier.

Entrepreneurship is the more suitable profession for women than regular employment in public and private sectors since they have to full fill dual roles. Above all the changing social scene like emergence of nuclear families and diversification of labour activities have resulted in the non-availability of servants, limited baby care facilities at home and work is pushing women towards entrepreneurial activities.

The word entrepreneur is derived from the French word "Entreprendre" which means 'to undertake'. Entrepreneurship is the attempt to create value through recognition of business opportunity, the management skill to mobilize human, financial and material resources necessary to bring a project to function (Kao and Stevenson, 1984).

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A women entrepreneur is defined as “An enterprise owned and controlled by a woman and having minimum stake of 51.10% in the capital and providing at least 51.00% of employment generated in the enterprise to women”. (Govt. of India)

Need for women entrepreneurship

Employment gives economic status to women and economic status paves the way to social status. In the rural sector 50.00% of the male and 33.00% of female were in the labour force. A high percentage of the female population in the rural sector is idle and unutilized. This can be possible through providing credit facilities. For this government provides credit facilities through Rastriya Mahila Kosh, SGSY etc.

The term micro-enterprises has been defined as the small enterprises that are very small in nature and is undertaken individually or based on the small savings and credit group. Even with little education and skill they can take up micro enterprises like making pickle or handicrafts etc. Rural India with little resources and opportunities could give women the opportunities to start small cottage industries so that they can become creator of wealth and income generation. Today we can say that no field is unapproachable for the trained and determined modern Indian women. Entrepreneurship

for women can be planned and developed and there is a need to create appropriate awareness and also the environment to promote enterprise is the vital importance.

Today, women involved in the small savings and credit groups have introduced various kinds of micro-enterprise as part of their micro enterprises which can be pointed out follows.

- 1. Domestication of small ruminants:** This includes running poultry farms, rearing ducks, goat rearing, bullock rearing etc.
- 2. Storing food and grains:** Under this programme rural woman either individually or in group usually purchases rice, maul, cakes made from sugar juice and pulses etc., with their group saving they store for some time and after a while they sell it at a higher price.
- 3. Handicrafts:** Rural women are undertaking clay modeling, preparing bamboo baskets, plate making with leaves, biri making, Mala making etc.
- 4. Other micro-enterprise activities:** This involves brick making, tailoring, flour mill, making of smokless chullahs, processing, spinning and weaving of sericulture produce, churning milk and preparing ghee, rope making, pickle making, papad making etc.

The most important fact is that all the women who want to take up an enterprise are imparted training in the concerned field before undertaking the enterprises so that they can achieve the success in their enterprises within the target period. Government and voluntary organization are made efforts in imparting the vocational education/ training.

Entrepreneurship and rewards

Entrepreneurship has its own rewards as it is one's own boss, can set one's own working hours, own business and matter of pride to have one's own enterprise. To become prospective enterprise one should possess qualities likes;

1. Preparedness to accept changes.
2. Have courage and self confidence.
3. Learn to handle money intelligently (efficient money manager).
4. Better risk bearing ability and taking decision effectively and appropriately.
5. Ability to eliminate unnecessary activities.
6. Should have ability to allocate the time for both family and business activities appropriately.
7. Set a target for achieving the goal and mobilize all your energies and resources to accomplish the same.
8. Should gain the maximum satisfaction, of the minimum

number of customers.

9. One should be production oriented and real market oriented.
10. Never expect the business to come to you, you create your business asking for it.

Benefits of micro-enterprises

1. Monetary benefit/ income source.
2. Provides domestic consumption.
3. Help in resource mobilization.
4. Develops ability in dealing with customers or improved customer relationship.
5. Improves bargaining capacity of the women entrepreneur.
6. It improves the confidence.
7. Effective utilization of manpower.
8. It helps to get social recognition.
9. It is a mean for experimental learning.
10. It helps in developing marketing skill.

Problems faced by women entrepreneur

1. Lack of education and stiff competition.
2. Scarcity of raw materials and financial problem.
3. Inadequate infrastructural facilities and high cost of production.
4. Limited mobility and socio-economic constraints.
5. Lack of experience.
6. Inaccessibility to resource to

develop the entrepreneurial skills like independence, assertiveness, drive etc.

7. Society's lack of confidence in women ability.
8. Accepting a subordinate status and strict role segregation.
9. Family support.

Change in the social scene leads to emergence of nuclear family. Women play an important role in family maintenance and financial management so entrepreneurship development in women is very essential. Empowerment of women play dual role, making her financially empowered and getting her a position in the society, which leads to the financial development of a family in particular and the society in general.

Success Stories of Women Entrepreneur

1) An entrepreneur by Accident- Ms. Patricia Narayan

She started her career 30 years ago as an entrepreneur, selling eateries from a mobile cart on the Marina beach -- battling a failed marriage and taking care of two kids. Today, she has overcome the hurdles and owns a chain of restaurants.

She had interest in cooking and passionate about trying about new dishes, but never thought of becoming business women as she was from a family of government servants. She got married to a Brahmin guy with lot of opposition

from her conservative Christian parents. But her marriage did not work out as he was addicted to alcohol, drugs etc. She was thrown out with two very small children at young age at that time her parents gave her shelter. She does not want to burden her parents and want to become economically independent. She started making pickles, squashes and jams at home by taking just hundred rupees from her mother. She sold those items in one day and got money back this gave her a confidence. Whatever the income she got, invested in preparation of more pickles, squashes and jams.

First step as an entrepreneur

One of her father friend running a school for handicapped children was handing out mobile carts or kiosks to people on free of cost who would employ at least two handicapped people. They needed somebody who could run it. She was also offered one. But she has to train the children to make coffee and serve them to customers. She decided to put her mobile cart at Anna Square on the Marina beach as she was living nearer to that. On June 1982 she started her business. She was very excited to become business women next day. She started selling cutlets, samosas, bajjis, fresh juice, coffee and tea. On first day she sold only one cup of coffee and that was for fifty paisa. She got disappointed but her mother consoled by saying she could able

to sell at least one cup of coffee. Next day she sold snacks for ₹600-700 which was big money for her. From next she added ice creams, sandwiches, French fries and juices too to her mobile canteen and always thinking of adding more items. She used to stand personally to sell all the stuff. She never felt scared to stand there late at night as she wants to prove herself.

By seeing her work Slum Clearance Board gave an offer to run the canteen at their office with a proper kitchen. She used to work from morning 5 AM to 9 AM at mobile canteen and again at 3.30 PM to 11.00 PM and remain time she used to be at Slum Clearance Board canteen. At that time her monthly income was around ₹20,000. Later she ran the Bank of Madurai canteen and stopped running the canteen at the Slum Clearance Board canteen.

One day she saw a National Port Management training school run by the Central government. She went and met the administrative officer and told about her work as a caterer. To her surprise they were also looking for one as they had problems with the current contractor. She used to serve three meals to about 700 students a day and staying in the quarters. She runs the canteen till 1998. Her first weekly payment was ₹80,000 and she was earning almost a lakh a week.

Her connection with restaurants started in 1998 when she met

people from the Sangeetha Restaurant group. They offered a partnership in one of the units. But she wanted to start her own. She started her first restaurant 'Sandeepha' in 2004 in her daughter's memory. She started her business with just two people. Now, there are 200 people working in her restaurants. Lifestyle has been changed too. From travelling in a cycle rickshaw, moved to auto rickshaws and now she own car. Her ambition is to build Sandeepha brand. She got FICCI entrepreneur of the year award. Apart from this she is also doing social work like providing free ambulance for the accident victims. Her self-confidence and believe in herself lead to her success.

2) Agricultural labour to CEO of keys software solutions in United States of America- Ms. Jyothi Reddy

It is an inspiring life story of a lady who was just an agricultural labour, worked for ₹5 per day until 1989 now became CEO of Keys software solutions in USA and making millions of money.

Anila Jyothi Reddy was born in N a r a s i m h u l a G u d e m in Hanumakondamandal, Warangal District as an eldest among four children to a common peasant who has lost his employment during emergency. As it was very difficult for the family to meet both the ends, her father was forced her to join at BALASADAN, a government

orphanage at Hanumakonda as a motherless child.

From 5th to 10th class Jyothi Reddy stayed in orphanage by having solitary life away from home. She used to wait if anyone would come and render some help. Particularly during winter season when she used to shiver like anything as her blankets were torn. Even during summer she never used to go to her village, she used to stay in warden's house and used to do entire house hold work for which she was fed. Jyothi passed 10th class with good marks and she dreamed to continue her education. But her parents performed her marriage at the age of just 16 with Mr. Sangi Reddy....by the age of eighteen she became mother of two girls. It was very difficult for her to provide the basic needs to her children, feed them and to look after. To take care of her children she started working as an agriculture labour with a wage of ₹5 per day. She worked for three year as labour. In 1989 Nehru Yuvak Kendra (NYK) started a night school to teach basic education for adults. Jyothi was appointed as the volunteer to educate the adults after giving some training as she was the only educated person in that village. It fetched her ₹150 per month. By seeing her work and performance she was appointed as Mandal Prerak of Hanumakonda. She completed her graduation and post-graduation in Distance Mode from Ambedkar Open University.

She did B. Ed from Anna University and become government teacher.

When Jyothi was working as an inspector of schools, a relative of her who settled in America came to her place. Jyothi was accompanying her during her visit. She made up her mind and learnt computers and started saving money for her passport and visa. After series of early failures she could get a visiting visa and flew to America with a little amount and great desire. As she landed she found it very difficult to settle in a new place like America. The person who promised to help her has not come forward. She joined as a salesperson in "Movie Time" a video shop in New Jersey. When she was working, an Indian from Warangal saw her work and talent and recommended her name to his brother owned company called "CSAMERICA" where she was appointed as recruiter after being trained.

Later a well know company ICSA offered her a good job with handsome salary. In between she faced problem of visa. The hardship she faced while getting visa made her to become an entrepreneur. She established her first enterprise to assist the people to get their Visas, called as Keys software solution. It extended its services to developing software solutions and recruitment and other job providing areas. Her hard work, commitment and dedication fetched her success she dreamed for. She made enough money from her enterprise but

Jyothi Reddy never forgot her roots. In every visit to India she visits Orphanages, Old age homes and spends time with them, provides

them financial assistance. She visits Women's colleges and empower them with her life experience.

BAMBOO - Poor Man's Timber



Bamboo is a perennial crop that provides year round income, generating jobs for women and men. It is fast growing and easy to cultivate. It grows on degraded land and reduces erosion and reliance on threatened forests. It can be processed into a huge variety of products, including furniture, boats, kitchen utensils, incense sticks, charcoal and footwear. It also provides good and nutrition security as food and animal feed. Bamboo is earthquake proof, has greater tensile strength than steel and withstands compression better than concrete which is why it is so valuable in construction. Used as substitute for concrete it also reduces emission of green house gases. These are among many reason why bamboo is referred to "poor man's timber".



THE MEGHALAYA CO-OPERATIVE APEX BANK LTD.

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FINANCIAL HIGHLIGHTS

(As on 31.03.2012)

(As on 31.03.2013)

• Paid up Share Capital & Reserves	: ₹ 7425.37 lakhs	₹ 9071.97 lakhs
• Deposits	: ₹ 118361.93 lakhs	₹ 133496.14 lakhs
• Loans & Advance	: ₹ 42223.38 lakhs	₹ 61498.25 lakhs
• Investments	: ₹ 47239.12 lakhs	₹ 53578.70 lakhs
• Money at Call & Short Notice	: ₹ 41609.52 lakhs	₹ 36055.34 lakhs
• Net Profit	: ₹ 1117.82 lakhs	₹ 1451.51 lakhs
• Working Capital	: ₹ 145392.22 lakhs	₹ 163452.92 lakhs

Our Banking Products & Services

- | | |
|---|--|
| <ul style="list-style-type: none"> • <i>Current Deposits</i> • <i>Savings Bank Deposits</i> • <i>No Frills Savings Deposits</i> • <i>Fixed Deposits</i> • <i>Recurring Deposits</i> • <i>Monthly Income Deposits</i> • <i>Double Benefit Scheme</i> • <i>Cash Certificates</i> • <i>Fixed Deposit linked with RDs</i> • <i>Housing Loan Linked Deposits</i> • <i>Children Education Deposits</i> • <i>Crop Loans for Agriculture through KCC / SHG / JLG Cooperatives</i> • <i>Term Loans for Agril. & Allied Agriculture</i> • <i>Aquaculture Development One Thousand Ponds Scheme</i> • <i>Loans for Housing / Housing Complex</i> • <i>Loans for SRTO</i> | <ul style="list-style-type: none"> • <i>Consumer Durables Loans</i> • <i>Loans to Technocrats & Professionals</i> • <i>Loans to educated unemployed youths</i> • <i>Cash Credit & Overdraft Facilities</i> • <i>Loans for Children Education</i> • <i>Loans for women through WDC Cell</i> • <i>Integrated Village Development Scheme</i> • <i>Term Loan for Tourism Development</i> • <i>Personal loan to salary earners</i> • <i>Bank Guarantee</i> • <i>Safe Deposit Lockers & Other Ancillary Services</i> • <i>Loans to Tribals under NSTFDC Schemes</i> • <i>Loans to Physically Challenged under NHFDC</i> |
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Study of Impact of financial inclusion on the customer covered

Ms. Gunjan Adhikari*

Introduction

A well functioning financial system empowers individuals, facilitates better integration with the economy, actively contributes to development and affords protection against economic shocks. Inclusive finance - through secure savings, appropriately priced credit and insurance products, and payment services helps vulnerable groups such as low income groups, weaker sections, etc., to increase incomes, acquire capital, manage risk and work their way out of poverty.

Notwithstanding the efforts made so far, a sizeable majority of the population, particularly vulnerable groups, continue to remain excluded from the opportunities and services provided by the financial sector. With a view to correct this situation and extend the reach of the financial sector to such groups by minimizing the barriers to access as encountered by them, The Government of India (GOI) vide order no.6/5/2006/AC dated 22 June 2006 constituted a **“Committee on Financial Inclusion”**.

Concept of Financial Inclusion (FI)

Financial inclusion is the deliv-

ery of financial services at affordable costs to sections of disadvantaged and low income segments of society. Unrestrained access to public goods and services is the sine qua non of an open and efficient society. It is argued that as banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the prime objective of public policy. The term "financial inclusion" has gained importance since the early 2000s, and is a result of findings about financial exclusion and its direct correlation to poverty. Financial inclusion is now a common objective for many central banks among the developing nation.

“Financial inclusion may defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and lower income groups at an affordable cost.” -C.Rangarajan Committee Report, 2008.

Financial inclusion considered to be an important determinant for social inclusion of poor and vulnerable. It is in fact, one of the essential

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conditions for reduction of poverty and socio-economic inequalities in the society. The financial services include the entire range- savings, loans, insurance, credit, payments etc.

Problem Statement at Community Level

Banks have been predominantly the gateway of the basic forms of financial services and banking inclusion/exclusion is primarily used as analogous to Financial Inclusion / Exclusion. While the Banks are guided by the directives of the RBI to extend basic financial products and services to the marginalized population, issue of reach, scalability, recovery have remained a concern for the banking industry in-turn resulting in a weak delivery model. The larger problem is mainstreaming the marginalized and ensuring inclusive growth. Financial inclusion means aligning people in remote areas with economic growth so that they gain from the growth of the economy.

Financial inclusion was not a popular concept in earlier years in banking sector. Many areas not focused for example, the sections largely comprise marginal farmers, landless laborers, oral lessees, self-employed and unorganized sector enterprises, urban slum dwellers, migrants, ethnic minorities and socially excluded groups, senior citizens and women. In remote, hilly and sparsely populated areas with poor infrastructure, physical

access itself acts as a deterrent. From the demand side, lack of awareness, low incomes/assets, social exclusion, illiteracy act as barriers. On the other hand, the ease of availability of informal credit sources makes these popular even if costlier. The requirements of independent documentary proof of identity and address can be a very important barrier in having a bank account especially for migrants and slum dwellers.

Objectives

- Assess the impact of Financial Inclusion,
- Study the effectiveness of channels followed by bank Financial Inclusion,

Review of Literature

1. "The crux of inclusive growth in bank lies in innovation to reach out to people and work on long term programmes to make financial inclusion not only an economically viable proposition but also to pursue sustainable social development."- M.D. Mallya, CMD, Bank of Baroda.
2. "We require a business plan for implementation of Financial Inclusion on a larger scale. Cost is high because of low scale. Technology can enable wider implementation while keeping a tab on costs."- Hari Sankaran, MD, IL & FS.
3. "Financial services are not merely about opening of no frill accounts. The key question is how we increase the number of

delivery channels as financial services need to be available at the door step of every rural household.” KG Karamakar, MD, NABARD.

4. “Financial Inclusion should be the bed rock of our policy and no individual should be denied the right to open an account. Financial literacy and credit counseling are the need of hour.” - S. S. Tarapore, Distinguished fellow, Skotch Development Foundation.
5. “There has to be a central nodal agency for the urban poor, which can form a group around them, so that we have a better spread, making an insurance scheme viable.”-M Ramadoss,

CMD, Oriental Insurance.

6. “For the urban poor, there are two aspects when one talks about Financial Inclusion; one financial education or awareness and second is accessibility to the system.”- M Narendra, Executive Director, Bank of India.
7. “The global financial crisis has brought the need for financial inclusion into greater focus worldwide as it is believed that widespread incidence of financial exclusion was one of the factors that precipitated the financial crisis.”- M.Shahul Hameedu, corresponding author, IJCRAR.

DEPOSITS AND CREDIT OF SCHEDULED COMMERCIAL BANKS ACCORDING TO POPULATION GROUP MARCH 2012

(Amount in ₹ Million)

POPULATION GROUP	No. of Offices	DEPOSITS		CREDIT		CREDIT (Non Food Credit)*	
		No. of Accounts	Amount	No. of Accounts	Amount Outstanding	No. of Accounts	Amount Outstanding
	1	2	3	4	5	6	7
RURAL	35,936	283,071,790	5731858.5	41,115,982	3805176.5	41,115,815	3396945.1
	(35.6)	(31.3)	(9.4)	(31.4)	(7.9)	(31.4)	(7.2)
SEMI-URBAN	25,818	239,951,065	8425446.9	31,047,873	4598608.1	31,047,711	4572117.1
	(25.6)	(26.6)	(13.9)	(23.7)	(9.6)	(23.7)	(9.7)
URBAN	20,225	180,626,261	12725921.1	17,442,503	7815121.5	17,442,387	7795610.9
	(20.1)	(20.0)	(20.9)	(13.3)	(16.3)	(13.3)	(16.5)
METROPOLITAN	18,826	199,551,141	33899206.9	41,274,939	31813763.0	41,274,808	31476790.1
	(18.7)	(22.1)	(55.8)	(31.5)	(66.2)	(31.5)	(66.6)
ALL-INDIA	100,805	903,200,257	60782433.4	130,881,297	48032669.1	130,880,721	47241463.3
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
* Excluding credit extended for Food procurement.							

Note: Figures in bracket indicate percent share in All-India total.

Source: RBI

Research Methodology

To fulfill the objectives of the study following methodology was used.

Research Design

The Research was of 'Descriptive' in nature to identify the impact of financial on the customers covered. The Research was conducted also to plan the effective ways for promoting FI in the areas covered.

Data Source

Secondary data were collected from various sources like News Papers, Magazines, BOB Maitri and websites. Primary data were collected by interviewing people for getting the awareness status of financial inclusion. The data was collected through structured closed ended questionnaire.

Area of study

The study was conducted in Bhura-rani, Rudarpur, District Udham Singh Nagar, and State Uttarakhand.

Research instrument

The data was collected through structured closed ended questionnaire. The questionnaire was divided into two parts- Part A General Questions and Part B Specific Questions. General questions are about normal banking whereas specific questions are about financial inclusion knowledge. One separate questionnaire was prepared for Business correspondent.

Sampling Plan

Sampling Units: Businessmen and Marginalized labours

Sampling Technique: Convenient Sampling was used to conduct the survey

Sample size:

- ▶ Businessmen 1
- ▶ Marginalized Labours and Farmers 40
- ▶ Business Correspondent 1

Hence Total sample size was 51.

Analysis of Data: Simple average, percentage was followed for the data. For representation of data charts, graphs were used.

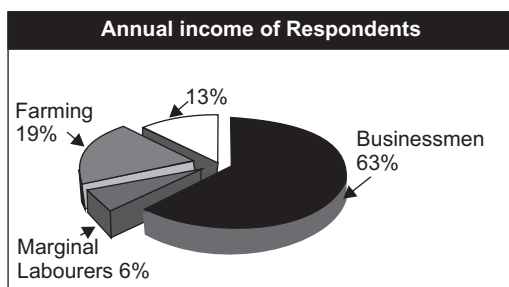
Results and Discussion

Demographic profile

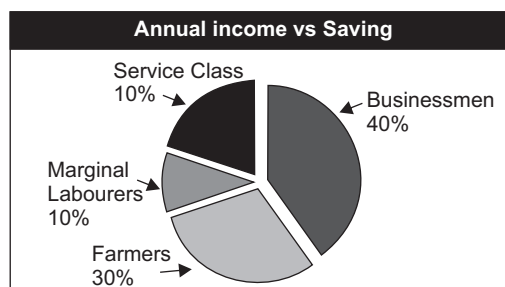
Rural and upcountry areas are different and they have different set of needs, choice, disposable and seasonality of income, level of literacy therefore, banks has to focus on promoting different products and distribution channel for rural an upcountry areas than practiced and followed in urban area. Therefore prior to designing of new products for these areas demographic study is important. Under demographic study of customers some parameters were studied such as occupation and annual income etc.

Income of respondents

Income, the representative of economics status is the most important parameter of demographic study. Saving habit is also related to the level of income. The study shows that the more affluent are more likely to save in formal institutions.



The survey was conducted through questionnaire containing 30 questions which were divided into two sections means one is General section and second is Specific section dealing with general knowledge of Banks and their



account operations while other section deals with the knowledge of financial inclusion. Findings of the survey are tabulated and results are shown in percentages.

Analysis of Section one - General questions

The data collected are classified in tabular forms and percentages are shown in-front of it.

Question /Answers	YES	NO
Q.1	36%	15%
Q.2	-	There was no need , Lack of transportation
Q.3	30%	21%
Q.4	18%	33%
Q.5	7%	44%
Q.6	-	-
Q.7	28%	23%
Q.8	37%	14%
Q.9	13%	38%
Q.10	2%	49%
Q.11	3%	48%
Q.12	4% (Personal loan,FD)	47% (Bad service, There was no need)
Q.13	2%	49%
Q.14	2%	49%
Q.15	22%	29%

Analysis of Section two-Specific Question

Question /Answers	YES	No
Q.1	4%	47%(do not know about scheme)
Q.2	3% (only crop loan)	48%
Q.3	1%	50%
Q.4	5%	46%
Q.5	3%	49%
Q.6	1%	50%
Q.7	0%	51%
Q.8	0%	51%
Q.9	0%	51%
Q.10	0%	51%
Q.11	2%	49%
Q.12	6%	45%
Q.13	20%	31% (they don't know)
Q.14	38%	13%
Q.15	45%	7% (don't know)

Analysis of questionnaire prepared for Business correspondent

The Business correspondent interviewed to know the status of financial inclusion and its processing and challenges if any. The questionnaire was both types closed as well as open ended.

Questions	Answers
Q.1	Yes (3-4 months)
Q.2	Yes
Q.3	Yes
Q.4	Yes
Q.5	No
Q.6	-
Q.7	Yes
Q.8	No (on process)
Q.9	Yes (250 accounts, on-process)
Q.10	Yes
Q.11	Yes (Pass book)
Q.12	Yes
Q.13	Yes

Findings of Section one-General questions

From this set of questions it is clear that most of the people are not aware of financial education and product. As the surveyed people are middle and low income families, so their saving pattern is nil. Some other findings are listed below:

- People are not fully aware of Bank's services and facilities.
- People don't save money as they don't earn much.
- Financial education of the people is nil.
- Farmers are scared of Bank' as the mind is set if they will not return loan on time Bank will take their property.

- Due to transportation problem accounts were not opened.
- Bad service of the bank is also one reason for the people that they prefer money lenders rather than Bank.
- Peoples lacks trust over bank.

Findings of Section two-Specific question

From this set of questions it is clear that though government has started the "Financial inclusion Plan" but still it is not fully implemented. Some findings of the survey are listed below:

- People have opened their accounts under this special scheme but don't know about the scheme and its name.
- Financial education is nil.
- Not aware of various facilities provided under this special scheme.
- Not aware of products under this Financial Inclusion.
- The process of financial inclusion plan is still on process.
- Business correspondent have not yet started functioning due to lack of his own card of Financial Inclusion.
- People have not received their cards.
- They have not taken any kind of advantage from this scheme as it is on process.

Conclusion

Financial Inclusion is the process of ensuring access to appropri-

ate financial products and services needed by all sections of the society in general, and vulnerable groups such as weaker section and low income group in particular, at an affordable cost in fair and transparent manner by regulated mainstream institutional players.

The main reason for financial exclusion is the lack of a regular or substantial income. In most of the cases people with low income do not qualify for a loan. The proximity of the financial service is another fact. Most of the excluded consumers are not aware of the bank's products, which are beneficial for them. Getting money for their financial requirements from a local money lender is easier than getting a loan from the bank. Most of the banks need collateral for their loans. It is very difficult for a low income individual to find collateral for a bank loan. Moreover, banks give more importance to meeting their financial targets. So they focus on larger accounts. It is not profitable for banks to provide small loans and make a profit. Depositing money in a bank is also cumbersome work to the low savings groups.

The Nachikhet Mor Committee has outlined six vision statements for full financial inclusion and financial deepening in India:

1. *Universal Electronic Bank Account (UEBA)*: Each Indian resident, above the age of eighteen years, would have an individual, full-service, safe,

and secure electronic bank account.

2. *Ubiquitous Access to Payment Services and Deposit Products at Reasonable Charges*: The Committee envisions that every resident in India would be within a fifteen minute walking distance of a payment access point.
3. *Sufficient Access to Affordable Formal Credit*: Each low-income household and small-business would have access to a formally regulated lender that is capable of assessing and meeting their credit needs. Such a lender must also be able to offer them a full-range of suitable credit products at an affordable price.
4. *Universal Access to a Range of Deposit and Investment Products at Reasonable Charges*: Each low-income household and small-business would have access to providers that can offer them suitable investment and deposit products. Such services must be available to them at reasonable charges.
5. *Universal Access to a Range of Insurance and Risk Management Products at Reasonable Charges*: Each low-income household and small business would have access to providers that have the ability to offer them suitable insurance and risk management products. These products must

at minimum allow them to manage risks related to: (a) commodity price movements; (b) longevity, disability, and death of human beings; (c) death of livestock; (d) rainfall; and (e) damage to property.

6. *Right to Suitability*: Each low-income household and small-business would have a legally protected right to be offered only suitable financial services. She will have the right to seek legal redress if she feels that due process to establish Suitability was not followed or that there was gross negligence.

The Committee lays down a set of four design principles, namely Stability, Transparency, Neutrality, and Responsibility, that will guide the development of institutional frameworks and regulation for achieving the visions outlined.

It is becoming increasingly apparent that addressing financial exclusion will require a holistic approach on the part of the banks in creating awareness about financial products, education, and advice on money management, debt counseling, savings and affordable credit. The banks would have to evolve specific strategies to expand the outreach of their services in order to promote financial inclusion. One of the ways in which this can be achieved in a cost-effective manner is through forging linkages with microfinance institutions and local communities. Banks should

give wide publicity to the facility of no frills account. Technology can be a very valuable tool in providing access to banking products in remote areas. ATMs cash dispensing machines can be modified suitably to make them user friendly for people who are illiterate, less educated or do not know English.

To sum up, banks need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low income group treating it both a business opportunity as well as a corporate social responsibility. They have to make use of all available resources including technology and expertise available with them as well as the MFIs and NGOs. It may appear in the first instance that taking banking to the sections constituting “the bottom of the pyramid”, may not be profitable but it should always be remembered that even the relatively low margins on high volumes can be a very profitable proposition. Financial inclusion can emerge as commercial profitable business.

References

1. Report of the committee on informal financial sector statistics, Dr. C Rangarajan, chairman of the National Statistical Commission.
2. The Next Billion Consumers, report on financial inclusion by Boston Consulting group.
3. Treating bank customers fairly, speech by Usha Throat, Governor, RBI organized by the

Financial Standards Planning Board, India.

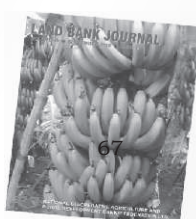
4. Taking Banking Services to the Common Man Financial Inclusion, Commemorative Lecture by Shri V. Leeladhar, Deputy Governor Reserve bank of India at the Fed bank Hormis Memorial Foundation at Ernakulum on December 2, 2005
5. Index of Financial Inclusion, Mandira Sharma, Indian

Council for Research on International Economic Relations.

6. National Conference on Financial Inclusion, Press Information Bureau, Govt. of India, Friday 14th November 2008.
7. Report of the committee on Comprehensive Financial Services for Small Businesses and Low Income Households, Nachiket Mor, RBI, 2014.

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NEWS & NOTES

Farm loans: Interest subvention, waiver schemes distort price of credit

Reserve Bank of India Governor Raghuram Rajan warned that interest subventions and loan waiver schemes can distort the price of credit and are not healthy for the financial system. Addressing a banking conclave organised jointly by industry body FICCI and Indian Banks' Association, Rajan said interest subvention provided by the Government creates distortion by changing the price of credit. "Loan waivers lead to misuse (of such schemes)...it hurts borrowers and disrupts the credit culture," he said.

The central bank chief expressed concern that loan waivers and subvention for short-term agriculture loans haven't helped in prompt repayment. "The biggest need in agriculture is long-term money and farmers don't get long-term loans because short-term loans are subsidised (by the Government)," Rajan said. The Government introduced the interest subvention (of 3%) scheme in 2006-07 for short-term crop loans up to ₹3 lakh. Under the scheme, agriculture loans are provided by banks at 7%. Further, an additional interest subvention of

3% is given to farmers who repay the loans in time, making the effective rate of interest 4%. Agriculture loans as on March 2014 totalled ₹779,200 crore, of which, ₹34,000 crore have turned bad, the RBI's annual report showed.

Bankers have raised concerns on the loan waiver scheme proposed by the Andhra Pradesh and Telangana Chief Ministers saying the credit discipline would be undermined and they would default on agriculture loans in the future. Earlier too, Rajan had warned against the "moral hazard" involved in such loan waiver promises. Rajan said why some sectors under the so-called priority sector lending should get easier credit should be looked at. "For example, we subsidise student loans for study abroad. Now, are students studying abroad most needy from the perspective of the country?" he asked. The priority sector lending requirement currently is at a minimum of 40 %, including sectors such as agriculture, education, rural housing, micro and small enterprises.

RBI to review priority sector lending norms

The RBI will review priority sector guidelines in 2015 to help it keep pace with the changing

economic dynamics, the central bank said in its Annual Report. "The priority sector guidelines have

not kept pace with changing economic priorities and may lead to less efficient use of resources. "During the course of the year, priority sector guidelines will be reviewed," the RBI said. Currently, banks are required to lend 40 % to the priority sector, which includes, among others, agriculture, education, export credit, housing, and micro and small enterprises.

Laying out its vision and agenda for 2014-15, the RBI also said it will review the existing regulatory framework for NBFCs, keeping in view the developments in the sector and various Financial Sector Legislative Reforms Commission (FSLRC) recommendations. Consequently, the RBI said some of the areas being reviewed include prudential regulations with a view

to strengthening core capital, asset classification and provisioning norms, acceptance of deposits, corporate governance, consumer protection and enhanced reporting, disclosures and transparency for the sector.

It is also looking to review the exposure limits for single and group of counterparties to help mitigate risks during cyclical downturns as banks' exposure under the framework will be more granular and diversified to a large number of unrelated counterparties, rather than being concentrated to a handful of large and related counterparties. Currently, the exposure limits are much higher at 40% of capital funds (plus 10% for infrastructure finance).

The culture of loan waivers must end: RBI Governor

Politicians must put an end to the culture of loan waivers, normally offered as a part of pre-poll sops, as it does more harm to the system than offer any help, said Reserve Bank of India Governor Raghuram Rajan. "Clearly this is another form of transfer but again waiving loans does widespread damage. It does damage to the credit culture... it makes it hard to let the flow of credit to happen," Rajan added.

He cited studies on how loan waivers disrupt credit flow and makes the recipients only better off in the short-run but worse off in the long term. "I think the message that

should be sent widely and clearly is to not do loan waivers," Rajan said. He instead suggested other measures such as loan restructuring for people affected by calamities as possible alternatives to loan waivers. He also cautioned that such waivers end up benefiting the wrong people instead of the intended recipients and added that such doles (in other forms) must be more targeted. This was, in fact, borne out in the 2008 loan waiver announced by the UPA-I government. ₹71,000 crore was later found to have been massively misappropriated.

The RBI Governor also added

that interest subvention is another practise that needs to be checked. Subvention is a scheme where the Government encourages lenders to give credit at cheaper rates than market rates to borrowers and then compensates the lenders. "To my mind, broad-based interest subventions distort the price of credit and lead to misuse. They also lead to wrong kind of information. "For example, if you incentivise short-term loans, you don't get

long-term investments," he added.

He suggested using Direct Benefits Transfer instead of encouraging interest subventions. "If you want to incentivise a particular activity of, say, small and marginal farmers, give them direct transfers and let them use it in whichever way they want. Do not force them to get into borrowing by offering them lucrative benefits," Rajan added.

Nabard appoints Deputy MDs

The Government has appointed R Amalorpavanathan and HR Dave as Deputy Managing Directors of the National Bank for Agriculture and Rural Development. Their appointment is for five years. Earlier, both were chief General Managers at Nabard. Nabard is a

development bank with a mandate to provide and regulate credit and other facilities for the promotion and development of agriculture, small-scale industries, cottage and village industries, handicrafts and other rural economic activities.

A note on Payments Bank

How would it be if your neighbourhood supermarket or even your mobile phone doubled up as a bank? Well, that is precisely what the Reserve Bank of India (RBI) is pushing for, in its efforts to get more people into the banking system. The RBI issued guidelines for a new category of 'payment banks' which can provide payment services to migrant workers, low-income households and small businesses, among others.

Payment banks are entities that allow you to only open savings and current accounts. But doesn't a normal bank allow you to do that even now? Yeah, but the difference

is, a payments bank can be a mobile service provider, supermarket chain or a non-banking finance company. Payment banks make handling cash a lot easier. For example, you can transfer money using your mobile phone to another bank or to another mobile phone holder and also receive amounts through your device. Or you can transfer the amount to point-of-sale terminals at large retailers and take out cash.

The 'payments bank' will pay an interest rate on these accounts, though the rates are not specified by the RBI. Existing mobile money services offered by operators pay an

interest of 4% on balances held. You can maintain a maximum balance of ₹1 lakh. These deposits are covered by the DICGC (deposit insurance), so your money is safe up to this limit. So if a payments bank can open accounts, pay interest and transfer cash, in what way is it different from the old-fashioned bank? Well, it cannot give out loans.

The RBI has stipulated that every payments bank must have an equity capital of ₹100 crore to start off and maintain a capital adequacy of 15%. Apart from these, it will need to meet cash reserve requirements and needs to invest in specific securities to meet the statutory liquidity ratio. All these amounts are to be invested in government securities or treasury bills. Promoter's holding must be at

Kisan Vikas Patra 2.0

The government will not insist on know your customer (KYC) guidelines on Kisan Vikas Patra (KVP), a post office savings instrument product that is being reintroduced after an over two-year hiatus, but interest payments above the prescribed threshold will be subject to tax deduction at source.

“There will be no KYC but interest payment would face TDS (tax deducted at source),” the official told. Small savers, however, may be spared as only interest outgo above ₹ 10,000 will be taxed. “In rural areas, where the

least 40% for the first five years, and eventually reduced to 26% over 12 years.

India has 91 crore mobile subscribers, of which nearly 79 crore are active users. In rural areas there are 38 crore mobile users. So, the reach of mobile phones is pretty extensive. For example, Bharti Airtel, with 20 crore subscribers, has nearly the same number of customers as SBI! So, whether it is a contractor seeking to pay workers who hail from another state or the government looking to transfer wages or even subsidies to the poor, the possibilities are huge for financial inclusion through this route. The RBI has asked payment banks to invest extensively in technology so that all transactions go through seamlessly.

unbanked population is still high, it will bring small savers into the organised channels instead of chitfunds and such schemes....The convenience of picking up the instrument from the nearest post office is huge,” said D K Pant, chief economist, India Ratings. Another official said proceeds from the instrument will not be handed out in cash, unlike in the past, but transferred to a post office savings account.

The popular KisanVikasPatra (KVP) was phased out in 2011 over fears of money laundering, as anyone could invest in the saving

instrument and no questions were asked about the source of income. The government is reintroducing it this year with the aim of bringing the savings of farmers into the formal channels. “KisanVikasPatra was a very popular instrument among small savers. I plan to reintroduce the instrument to encourage people, who may have banked and unbanked savings, to invest in this instrument,” Finance Minister Arun Jaitley said in his budget speech.

The earlier UPA government had discontinued issuance of KVP from December 1, 2011 following the recommendations of the ShyamalaGopinath committee, which was set up to review small savings schemes. The committee had suggested closure of KVP saying “it is prone to misuse being a bearer-like instrument.” In 2009-10, the gross collection under the scheme was over ₹20,000 crore. The total amount outstanding at the end of February 2012 in the scheme

was ₹1.56 lakh crore, making it one of the most popular savings instrument. The government has possibly revived this scheme despite its known infirmities to tap into the rural savings that are more likely to go into gold, something that the country is keen to avoid after its recent brush with a current account deficit crisis. The government, however, will make some modifications to curb its misuse. TDS at 10% will ensure that the government gets some share of returns. It will also mandate that the maturity proceeds go to a savings account, diluting its bearer nature, which made KVP almost a cash equivalent. “KVP was a very liquid instrument and offered lot of flexibility to a farmer...One could en-cash it as and when needed just like ready cash,” the official said. This will also ensure that savings remains in the formal financial channels for the longest possible time.

RBI's scheme of rescheduling farm loans comes with riders

The Reserve Bank of India has finally agreed for rescheduling of crop loans for which the Andhra Pradesh government lobbied hard but with several riders that include restricting the coverage to “some farm loans” in four districts and not including those taken against gold.

In a letter sent to the Chief Secretary, I. Y. R. Krishna Rao, the RBI further restricted the relief only to short-term production loans

extended by commercial, cooperative and regional rural banks in the four districts of Srikakulam, Vizianagaram, Nellore and Krishna which it said, was based on normative criteria. Loans taken for allied agriculture activities would not be eligible.

The other loans not eligible for “crop loan scheme for reschedulement” include advances against pledge or hypothecation of

agriculture produce other than standing crop, “tied loans” and closed crop loan accounts. The reschedulement will be limited to a period of three years, comprising one year moratorium and two years reschedulement. The RBI has also made it clear that the banks will not forego the right to recovery from farmers if the loan remains overdue after the lapse of three years.

The eligible amount for reschedulement would be limited to the amount of crop loan together

with applicable interest which is disbursed between April and October 2013, as on March 31 or ₹ 1 lakh per farmer, whichever is lower. Where the amount is paid by the government, it must be deposited in cash directly in the farmer's account. The RBI said it had taken a “considered and sympathetic” view to enable unimpeded flow of credit to the farmers in the ongoing kharif season and to ensure that the present agricultural operations are not hampered.

Nabard ties up with NetApp

National Bank for Agriculture and Rural Development (Nabard) and NetApp have come together to enable India's cooperative banking sector to provide basic rural banking facilities such as any branch banking, National Electronic Funds Transfer (NEFT), and Automated Teller Machines (ATMs). NetApp will offer Core Banking Solution (CBS) platform. The benefits include increased efficiency by scheduling payments such as the salaries of school

teacher. Smaller banks that cannot afford to have their own Core Banking Solutions (CBS) will be able to access this network. Currently, 200 banks and 6,913 branches are on the CBS platform. “We are expecting that implementation of CBS will also help in freeing staff time, allowing them to focus on serving customers better and winning new customers,” said Subrata Gupta, Chief General Manager, Nabard.

PM outlines plan for 'second green revolution'

Prime Minister Narendra Modi mooted a more broad-based and inclusive approach for a 'second green revolution' aimed at augmenting grain production in a sustainable manner. Pitching for greater use of research, Modi gave the slogan 'Lab-to-Land', saying that farmers should be able to enhance production to increase their income and feed the country

as well as the world. “We clearly need a second green revolution that is more broad-based, more inclusive and more sustainable; we need to produce more without depleting our natural resources any further,” Modi said at the 86th foundation day of the Indian Council of Agricultural Research (ICAR).

On the depletion of ground water in Punjab, Haryana and western Uttar Pradesh, Modi said: “We all look back proudly to our green revolution, which helped us overcome food shortage and banish the spectre of starvation, or living from ship to mouth. But, today we find that the regions of the country which witnessed the green revolution are suffering from problems of environmental degradation.” He said in many other regions of the country, particularly in eastern India, yields continue to be much lower than what is attainable. While stressing the need to take technology to agriculture field to boost farm production for meeting the rising demand, Modi said: “The inclusive

strategies of development that we are pursuing should further increase the incomes of the poorer sections of our society. This will further increase demand for not only grain but also fruit, vegetables and animal products.”

The total demand for grain is projected to touch 280 million tonne by 2020-21. During 2013-14, the country produced 264 million tonne of grain. Modi stressed on use of scientific technology to help raise agricultural production in 'less land, less time'. “Although grain production has regained the requisite momentum in the last few years and the agriculture sector as a whole is set to grow at 3% per annum during the 11th Plan, we cannot be complacent,” he said.

Karnataka farm development projects done without research, says CAG

Comptroller and Auditor General of India (CAG) in its report on local bodies for the year ended March 2013, has pointed out “The financial management under the Rashtriya Krishi Vikas Yojna (RKVY) was deficient as evidenced by incorrect reporting of expenditure, diversion of funds, parking of funds in fixed deposits and idle equipment.”

RKVY was launched in May 2007 with the aim of achieving 4% annual growth in agricultural sector during the XI plan by ensuring holistic development of agriculture and allied sectors. Against the release (2007-13) of

₹2,307.52 crore under the scheme, the expenditure incurred was ₹2,082.59 crore (90%). During the XI Plan, the State Level Sanctioning Committee (SLSC) had approved 296 projects spread across 19 sectors. There was a short release of funds for project costs ranging from ₹37 crore to ₹98.32 crore for three sectors agricultural research, micro/minor irrigation and organic farming. Funds up to 84% had been utilised in those test-checked by CAG in 15 projects.

The CAG report also said, “The objectives of the test-checked projects were not achieved due to non-execution of all the envisaged

components, deviations from the project guidelines, shortfall in manpower etc. There were differences between the data uploaded in RKVY Database and Management Information System and information available with the implementing agencies. Erroneous entries had been made in the database system and there was no system of monitoring this data by RKVY cell. "The Karnataka Government stated (April 2014) that the projects were presented to the SLSC by the respective departments in consultation with the district level officers.

However, the reason for these

Guarantor can also be declared wilful defaulter, says RBI

The Reserve Bank of India (RBI) has clarified that entities that provide guarantee or surety for a loan are also liable to be tagged as wilful defaulters in cases where they refuse to make payment to the bank when the principal borrower has defaulted.

In a notice, the central bank said that not just companies but even individuals who manage companies and other companies within the group be tagged as wilful defaulter by banks. "In cases where guarantee furnished by the companies within the group on behalf of the wilfully defaulting units are not honoured when invoked by the bank/FI, such group companies should also be reckoned as wilful defaulters," it said.

projects not originating from district agriculture plan (DAP) or state agriculture plan (SAP) was not explained. CAG said, "No study on agro-climatic conditions and availability of technology and natural resources available in the State was conducted before preparation of DAP and SAP, though stipulated in the Scheme guidelines. The Project Co-ordinator, RKVY Cell, had stated (September 2013) that University of Agriculture Sciences, Bangalore had conducted a study during 1984-85 under National Agriculture Research Project.

Further, the RBI said that in case of a default on a loan by a borrower, the onus of repayment falls on the guarantor immediately. In cases where the guarantor refuses to pay despite having sufficient funds, such guarantors can also be declared as wilful defaulter by the bank. "As such, where a banker has made a claim on the guarantor on account of the default made by the principal debtor, the liability of the guarantor is immediate. In case the said guarantor refuses to comply with the demand made by the creditor/banker, despite having sufficient means to make payment of the dues, such guarantor would also be treated as a wilful defaulter," the RBI said.

Better farm productivity is critical for India

Improving farm productivity is central to the Indian government's goal of achieving 'faster, more inclusive and sustainable growth', the World Bank has said in a recent report 'Accelerating Agricultural Productivity Growth in India Issues and Opportunities'. Although agricultural growth rebounded after 2004-05, two worrying trends emerged: concerns about the nature and sustainability of growth, the report observes, adding that the contribution of yields (productivity) has been limited while prices have been the main growth driver in recent years.

The report suggests that price-led growth without improvements in productivity is not sustainable. Additionally, diversification in farm production is a key driver of growth as seen in other emerging economies such as China and Brazil, but such diversification in India is rather limited. Discussing the report, Madhur Gautam, Lead Economist (Agriculture, Irrigation and Natural Resources) with World Bank said that reducing poverty and achieving shared prosperity requires a redoubling of effort to improve agricultural productivity given the slow pace of structural transformation in India. "Slow growth in farm productivity has meant slow improvement in the welfare of those dependent on it," he said.

Arguing that productivity is constrained by a high level of

economic inefficiency which hits the potential incomes to farmers, the report observes that the growth in output has primarily been due to increased use of inputs, with limited improvement in productivity. Commenting on the current state of affairs, the World Bank said the current 'technology fatigue' in India is an 'extension problem' as indicated in large yield gaps and low technical efficiency. The report also said that 'policy fatigue' is affecting productivity. It said that price and other policies used to promote food production are outliving their utility. Gautam said sustainability concerns also support a move to a more diversified production base, even though food security remains a high policy priority.

He added that there was an immediate need to address crucial long-term policy and institutional issues to make agriculture more climate resilient. He said that there should be a specific focus on scientific water management, investments to mitigate the adverse effects of climate change (both pre-harvest and post-harvest) as well as diversification of income sources on-and-off-the-farm. The report has also discussed management of high level of production risk (biotic and abiotic), investment in physical market infrastructure and collective action to link smallholders to value chains.

RBI to banks: take steps to prevent cheque frauds

In view of the rise in the number of cheque-related frauds, the Reserve Bank of India has asked banks to put in place preventive measures, including steps such as sending SMS alert to payer/drawer when a cheque is received in clearing. Further, to prevent cases of suspicious or large-value cheques (in relation to an account's normal level of operations), the central bank has advised banks to alert customers by a phone call and get a confirmation from the payer/drawer. The RBI has told banks to ensure the use of 100% CTS-2010 compliant cheques.

According to an RBI notification on preventive measures for cheque-related fraud cases, banks are required to strengthen the infrastructure at the cheque-handling Service Branches and bestow special attention on the quality of equipment and personnel posted for CTS-based clearing, so that it is not merely a mechanical process. Banks have to ensure that the beneficiary is KYC (know-your-customer) compliant so that the bank has recourse to him/her as long as he/she remains a customer of the bank. The RBI said banks should put in place a mechanism whereby all cheques beyond a

threshold, of say ₹2 lakh, are examined under UV lamp. Cheques beyond a certain threshold, say ₹5 lakh, should be subjected to multiple levels of screening. The threshold limits mentioned above can be reduced or increased at a later stage with the approval of the Board depending on the volume of cheques handled by the bank or its risk appetite. Banks are required to closely monitor credits and debits in newly opened transaction accounts based on risk categorisation.

In its notification, the RBI said, "The rise in the number of cheque-related fraud cases is a matter of serious concern. It is evident that many of such frauds could have been avoided had due diligence been observed at the time of handling and/or processing the cheques and monitoring newly opened accounts." Therefore, banks have been advised to review and strengthen the controls in the cheque presenting/passing and account monitoring processes and to ensure that all procedural guidelines, including preventive measures, are followed meticulously by the dealing staff/officials.

Urban Co-op Banks implementing core banking will be classified as financially sound: RBI

The Reserve Bank of India said full implementation of core banking solution will be included as an

additional criterion for classifying an urban co-operative bank (UCB) as financially sound and well

managed (FSWM). Hitherto, UCBs fulfilling criteria, among others, such as capital to risk weighted assets ratio of not less than 10%; gross non-performing assets (NPAs) of less than 7% and net NPAs of not more than 3%; were classified as FSWM banks.

The other criteria prescribed by the RBI for classifying a UCB as financially sound and well managed are: net profit for at least three out of the preceding four years, subject to it not having incurred a net loss in the immediate preceding year; no default in the maintenance of cash reserve ratio / Statutory Liquidity Ratio during the preceding financial year; sound internal control system with at least two professional directors on the

Board; and regulatory comfort. When it comes to regulatory comfort, the RBI said UCBs should have an impeccable record of regulatory compliance and no warning letter/cautionary advice should have been issued to or monetary penalty imposed on the bank on account of violation of RBI directives/guidelines during the preceding three financial years.

The RBI said the new criteria would henceforth be considered for processing applications received from UCBs for opening of on-site/off-site/mobile ATMs, applications under Annual Business Plans, extension of area of operation, shifting of premises and all other permissions from RBI.

Stressed Loans: Banks get more time for corrective action

The Reserve Bank of India (RBI) has increased the time limit for banks to come up with a corrective action plan (CAP) by the Joint Lenders Forum (JLF) from 30 days to 45 days in case of loans showing incipient stress. Similarly, it has allowed the Independent Evaluation Committee (IEC) a time limit of 45 days instead of 30 days for evaluation of the restructuring package and giving their recommendations for restructuring of accounts with aggregate exposure of ₹500 crore and above.

If an escrow maintaining bank under JLF/Corporate Debt Restructuring mechanism does not appropriate proceeds of repayment by the borrower among the lenders

as per agreed terms resulting into down gradation of asset classification of the account in books of other lenders, the escrow maintaining bank will be subjected to corresponding accelerated provision instead of normal provision. Further, such accelerated provision will be applicable for a period of one year from the effective date of provisioning or till rectification of the error, whichever is later. As per the reviewed guidelines on JLF and CAP, banks will be permitted to report their SMA (special mention account)-2 accounts (where principal or interest payment overdue between 61-90 days) and JLF formations on a weekly basis at

the close of business on every Friday.

Crop loans will be exempted from reporting to Central Repository of

Six Big Banks to appraise loans above ₹500 cr

The finance ministry has identified six large banks that can be empowered to do project appraisals for all the lenders in a consortium set up for sanctioning loans above ₹500 crore. The list includes country's largest bank, State Bank of India, Bank of Baroda, Canara Bank, Bank of India, Punjab National Bank and IDBI Bank.

"Banks were chosen on the basis

New RBI norms cause big drop in bad loan sales in 2nd quarter

Bad loan sales by Indian banks slowed significantly in the September quarter after the Reserve Bank of India (RBI) notified norms requiring a higher upfront commitment by asset reconstruction companies (ARCs) purchasing the sticky assets. ARCs now have to pay 15% of the net asset value (NAV) of the assets upfront and issue so called security receipts for the remaining amount. RBI rules had earlier specified an upfront payment equivalent to 5% of the NAV.

When a bank sells a non-performing loan to an ARC, the asset moves out of its loan book and is classified as a standard investment against the security

RBI makes SMS alerts for cheques mandatory

Banks will now start sending SMS alerts to both payer and

Information on Large Credits. However, banks will continue to report their other agriculture loans in terms of the above instruction.

of their business size and competence. All selected banks have a business mix of ₹5 lakh crore and above," he said, adding that finance ministry is expected to issue a directive to all state-run banks on the issue. A finance ministry official, said there will be no compulsion on the smaller lenders in the consortium to go with the appraisal of the lead bank.

receipts, freeing it from the onus of having to set aside money to cover the risk of default. The central bank announced the new norms on 5 August, 2014 sale of bad assets from banks typically pick up towards the end of the quarter. Bad loans at banks have surged in recent years due to economic downturn that pushed gross-domestic product (GDP) growth to below 5% for two consecutive years and stalled projects, crimped corporate cash flows and hurt the ability of borrower to repay debt. The gross non-performing assets (NPAs) of 40 listed banks in the June quarter grew some 21% in absolute terms to ₹2.52 trillion from ₹2.08 trillion a year earlier.

drawer in cheque transactions as soon as the instruments are

received for clearing. Expressing concern over the rise in cheque-related fraud cases, the Reserve Bank of India (RBI) has made SMS alerts mandatory for such transactions. RBI has also asked banks to alert a customer with a phone call and obtain confirmation when dealing with suspicious or high-value cheques. Until now, SMS alerts were mandatory only for card transactions.

RBI has told banks that clearing cheques should not be a mere mechanical process and banks should bestow special attention on the quality of equipment and

personnel deployed for cheque clearing. Although crossed cheques do leave a better money trail that can be investigated, fraudsters have managed to encash cheques by presenting them into accounts opened fraudulently. The additional rules come at a time when banks are expected to open several crore new accounts and many of them are under relaxed know-your-customer (KYC) norms. The RBI has said that while crediting high-value cheques, banks should ensure that the recipient's account is KYC-compliant.

Finance Ministry, RBI to unveil new monetary policy framework by Feb, 2015

The Finance Ministry aims to complete the formalities for implementation of the new Monetary Policy Framework Agreement possibly by February 2015. However, it will be left to the Reserve Bank of India to decide on the date of implementation. The proposed framework aims to change the monetary policy formulation and will also focus on inflation targeting. Traditionally, the monetary policy formulation is a closed-door affair in the RBI. But, with the new system, an eight-member Monetary Policy Committee will now take a call on the policy, and the central bank will then implement it.

“The Finance Ministry is writing to the RBI seeking its comments on the proposed policy. The proposal

will then be placed in the public domain before finalising the agreement,” a senior Finance Ministry official told. The endeavour is to sign the agreement by February, 2015, to show that one of the key Budget announcements has been implemented, the official added. Finance Minister Arun Jaitey, in his Budget speech on July 10, 2014 had said, “It is also essential to have a modern monetary policy framework to meet the challenge of an increasingly complex economy. Government will, in close consultation with the RBI, put in place such a framework.” The proposed framework is based on a combination of recommendations by FSLRC (Financial Sector Legislative Reforms Commission)

and the Urjit Patel Committee, along with inputs from the Rajan Panel on Financial Sector Reforms.

As recommended by the FSLRC, the committee would comprise the Governor and a Deputy Governor (in-charge of monetary policy), besides five members from outside and a Government nominee. The decision will be based on the majority view to be established through voting. However, the Government nominee will not have voting right and will simply provide inputs from the Government. The

official said once the draft framework is finalised, an agreement will be signed between RBI and the Finance Ministry. This will be the second agreement for a big shift after both sides signed an agreement for ways & means in 1997. The proposed policy framework has also drawn inspirations from the UK. It also prescribes the proceedings of Monetary Policy Committee to be made public with a time lag and proper attribution.

Why farmers' inclusion is necessary in warehousing

Most of the farmers grow the crop, harvest and sells quickly without waiting for favourable market condition. Perhaps farmers knows that the prices of their produce goes up after a period of time, the urgency of cash need forces them to sell the produce at an unfavourable price. To address this problem and for promotion of scientific storage in the country, Government of India started Grameen Bhandaran Yojana, a special scheme for rural India. Over the years, the scheme resulted in building a storage capacity of more than 54.2 million MT in rural areas. Though the increase in storage capacity was much needed and still there is need of promoting warehousing in the country, parallel to this, Farmers Inclusion in storage should also be ensured.

Banks are critical to fulfil the Government's objectives of

providing loans to farmers against the produce stored in the godown/ warehouse. Despite efforts by government, pledge loan against warehouse receipt has not been much popularized in India as the bankers are not confident with management and maintenance of the warehouses in the country, reported by Working Group on Warehousing under 10th Five Year Plan.

With the aim of regulating and promoting the growth of warehousing in India and also to introduce the negotiability of warehouse receipts by launching Negotiable Warehouse Receipt System (NWRS), Warehousing Development and Regulatory Authority (WDRA) was established by enacting Warehousing (Development and Regulation) Act 2007. The Act came into force from 25th October 2010. For the purpose

of building confidence of different stakeholders over warehouses, WDRA has defined norms for construction and operation of warehouses. The Warehouse Service Providers (WSPs) have to ensure compliance with the norms defined for accreditation of warehouses with the Authority.

In Indian agricultural scenario pledge finance has immense importance as most of the farmers hold small or medium sized land and thus lack financial backup. Most of these farmers do not possess any collateral which can be offered to financial institutions for availing a loan. Negotiable Warehouse Receipts are now being used as collateral. Thus in many Indian states, pledge finance has been growing in recent past. Among the 28 Indian states, only 12 have made headway for spreading pledge finance among farmers and other stakeholders dealing in agricultural commodities. Pledge finance has become popular in Andhra Pradesh, Haryana, Madhya Pradesh, Punjab and Rajasthan.

After establishment of WDRA, in most of the state growth in availing pledge finance has been observed except Tamil Nadu and Maharashtra. The highest growth was recorded in Gujarat (62%) followed by Orissa (49%) and Punjab (27%). The states of West Bengal, Rajasthan, Andhra Pradesh, Madhya Pradesh, Kerala and Haryana have witnessed a growth of less than 10%. This has

been possible in these states with the concerted efforts put forth by agencies such as Central Warehousing Corporation (CWC), State Warehousing Corporation (SWC), State Agricultural Marketing Departments/ Boards, Collateral Management Service provider i.e. National Collateral Management Service Limited and National Bulk Handling Corporation (NBHC).

In the remaining states where the pledge finance scheme has been prevalent, but to gain momentum, awareness camp on mass scale is needed for reaching the producer growers. In order to bring prosperity in the life of producer growers, it is the duty of government to ensure Farmers Inclusion in all agriculture related schemes. A primary investigation into the matter reveals that most of the farmers do not store the produce in warehouses as they need cash quickly after harvesting the crop. Lack of awareness about the pledge loan scheme and utilization of NWR is also among the reasons that the farmers are not landing to warehouses.

The norms of accreditation by WDRA address the issue by including mandatory insurance by the WSPs. According to the direction of WDRA, the insurance policy covers a) Insurance of items stored b) Fire and Perils c) Earthquake, spontaneous combustion and d) Fidelity and personal indemnity. Though these

are the major risk factors associated with warehouses, factors which are yet to include to increase bankers confidence are a) Insurance against price fluctuation b) Loss in quality of stored item due to climatic factors c) fidelity by temporary wagers and d) Bankruptcy of WSPs. Apart from this, another lacuna in the

insurance coverage is that in cases of terrorism / burglary / misappropriation / theft etc. the insurance coverage is only 20% of the value of goods. If these risk factors are addressed properly, bankers may come in comfort zone, which will result in promotion of pledge finance and Farmers Inclusion in warehousing.

Banks must plan talent, leadership needs well in advance: RBI panel

In a bid to focus on quality and efficiency in banks, an RBI panel recommended that banks plan for their talent and leadership requirements at least five years ahead, and stressed that placement of employees needs to be based on well-laid out parameters rather than being ad-hoc or discretionary. "Talent and leadership requirements need to be planned strategically over the long term, say over five years and above," Reserve Bank of India said in a report released by a committee on Capacity Building in Banks and Non-Banks.

The ambit of the report is essentially human resource (HR) intervention that would be required for improving the efficacy and efficiency of personnel employed at various levels by banks, and non-banking financial companies regulated by the Reserve Bank. The RBI asked banks to create specialists, as their role is increasingly becoming crucial, and hence there is need for suitable HR

intervention. "Bankers will need to specialise in different business functions, while maintaining basic general competency. Corporate banking, retail banking, treasury, risk, finance, technology, and HR will increasingly require staff with relevant aptitude. Banks need to identify five to six such tracks, within which the staff can be groomed...Certain job families like credit, treasury and technology are typically in deficit and need to be planned for at various levels," the report said. It further wants banks to focus on skill building, wants a 360 degree feedback mechanism, coaching and mentoring paradigm, pre and post-recruitment training and talent retention along with creating a position of 'Chief Learning Officer' in all commercial banks, responsible for leadership development and collaborative learning across the organisation.

Further, the RBI told public banks to avoid transfer for the sake of preset norms. "Job rotation in banks especially PSBs, should not

be done in a mechanical manner, but through a well laid down criteria... Transfers should focus on critical requirement like leadership across the geography and posts that require high concentration of power. In short, need-based transfers may be undertaken," the panel suggested. The committee was constituted by the RBI with the objective of implementing non-legislative recommendations of the Financial Sector Legislative Reforms Commission relating to

capacity building in banks and non-banks, streamlining training intervention and suggesting changes thereto in view of the ever increasing challenges in banking and non-banking sectors. The objectives also included evolving an appropriate certification mechanism in the realm of training, wherever feasible, examining possible incentives for undertaking such certification and covering all stages of hierarchy - from the lowest rung to Board level executives.

RBI Governor raises concerns over quality of GDP data

Raising concerns over missing data while calculating GDP, Reserve Bank of India Governor Raghuram Rajan said there is need to improve the quality, quantity and timeliness of GDP data. "We need to improve the quality, quantity and scope of our data. We are working on it. We certainly need timely information on employment... We need to get comprehensive data perhaps at a monthly level... In many other countries, the employment data forms the basis for a number of decisions on the monetary policy," Rajan spoke at the 8th Statistics Day Conference in Mumbai. The RBI chief said the data related to GDP misses out a few small sectors, adding that our data on employment comes from

various sources with different lags and are not necessarily comparable and timely. He said the RBI will formally approach the National Sample Survey Organisation (NSSO) on this.

Further, he said some aspects of business like the small business activity and unorganised sector data are captured relatively late by the GDP data. Highlighting that construction is central to growth, Rajan said it was important to get data on construction sector and also quickly capture and get comprehensive data on consumption. Lastly, he also called for more coverage of data on a variety of non-bank institutions and extent of hedging by corporates.

Govt directs banks to probe staff accountability in default cases

The Government has asked state-owned banks to examine whether bank staff have followed standard procedure on loans that

have turned non-performing assets, banking industry sources said. "In cases on the verge of being termed wilful default, and in other

large default cases, the Government has asked banks to look into the involvement of bank officials, and whether all norms were followed,” an executive director at a large state-owned

bank said. Banks have been told by the Government to be more aggressive in identifying default cases early, and where there is evidence to declare errant promoters as wilful defaulters.

Green Army - This army fights for food security

It is an important day at the Agricultural Research Station of Kerala Agricultural University, Thrissur. A group of instructors are seated classroom-style, listening closely to station head Dr U Jaikumaran's instructions for a 'passing out parade'. This parade is not for military cadets but members of the Food Security Army, who have been trained in military-style to operate agro machinery.

The Food Security Army is born out of the belief that any attempt to address India's agrarian and food crises must be infused with purpose, discipline and professionalism. “Forty years ago there were 23 lakh agricultural workers in Kerala. Now there are only 10 lakh. Young people no longer want to work in agriculture,” says Jaikumaran. “A major reason is the lack of recognition or appreciation for agricultural work people who work in agriculture are called mazdoor or coolie. Another reason is the drudgery, hardship and health risks people injure their backs from bending constantly over their fields, get skin diseases from prolonged exposure to UV rays and carrying cow dung. The lack of social security and sustainable livelihood is another hindrance.”

The Food Security Army underscores the idea that agricultural workers deserve respect on par with army personnel. The motto 'Jai Jawan Jai Kisan' aptly highlights this. “The agricultural worker provides food security to the nation just as the soldier secures its territory,” says Jaikumaran.

Over 15-20 days, the residential training programme incorporates fixed syllabi, and theory and practical sessions. The focus is on mechanised agriculture students learn to operate, repair and maintain tractors, paddy transplanters, tillers, coconut tree climbers (women, too, are trained to climb the trees), threshers and harvesters. Since 2008, nearly 4,300 have joined the Food Security Army, including 1,800 women. Open to all, the fee is ₹10,000-15,000 per person. Panchayats, cooperative societies and voluntary organisations often come forward as sponsors. Trainees arrive from all over the country, including Andaman & Nicobar Islands, Karnataka, Tamil Nadu and Andhra Pradesh.

Those who complete the course are assisted in forming Agro Machinery Operation Service

Centres (AMOSCs), or Green Army, and given machines on rent. These centres function at the panchayat level and are of three kinds: individual, self-help group and cooperative. People who own farmland but lack machines and the know-how can contact these centres. "Depending on the service provided, agro service centre members are paid ₹500-2,500 per day. Women and men are paid equally. This is different from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), where workers get lower wages for mainly unskilled manual work," says Jaikumaran.

The Food Security Army

Wilful defaulters-A Note

Recently, the RBI governor Raghuram Rajan lashed out at large, wilful defaulters on bank loans, calling them freeloaders. Even as the RBI has been asking banks to take quick action against wilful defaulters, market regulator SEBI is thinking of barring them from stock markets.

The RBI lays down four scenarios under which a person or company can be declared a wilful defaulter. One, the borrower fails to meet his dues even if he has the ability to pay. Two, the borrower has diverted the money away from the intended purpose. Three, the money is siphoned off and used by the borrower for purposes which are unrelated to his operation. There are thus no assets to back up the loan. Finally, if the borrower sells

programme has helped create labour banks across Kerala which are addressing several aspects of the agricultural crisis. On one hand, these banks are cultivating large tracts of land left fallow after the migration of workers to Gulf countries. The skilled agricultural service providers have also eased the burden of women farmers struggling to tend land on their own. Radha Mullakara, a 62-year-old farmer with five acres in Parlikad village, has hired the Green Army. "I am able to sow 3.5 quintals of paddy per day, compared to 2 quintals earlier," she said.

off the asset which he bought with the loan taken without the knowledge of the bank, then too he can be deemed a wilful defaulter. If the group company of a borrower, which has given a letter of guarantee, fails to honour it, it too can be tagged as a wilful defaulter.

If a person or company is tagged as a 'wilful defaulter', they can attract penalties laid down by the RBI. First and foremost, access to all credit channels is cut off. A wilful defaulter cannot borrow more from any institution. Two, it also chokes off the prospect for any new ventures. A wilful defaulter cannot access institutional finance for floating any new business for a period of five years. Three, lenders can take criminal action against the borrower. In addition, banks are

required to submit the list of wilful defaulters with outstanding loan balances of over ₹25 lakh (where suits have been filed) to credit information companies such as Credit Information Bureau of India (CIBIL), Experian Credit Information, Equifax Credit Information and High Mark Credit Information, at the end of every quarter, to earn off prospective lenders.

Banks also report the names of current directors as well as directors who were associated with the company at the time the borrower was named as a defaulter. As a borrower, if you are labelled as a wilful defaulter, it pretty much shuts the door on any new loans. But if you are not a borrower or a wilful defaulter at that, should all this matter to you? Yes. This is

because when a large corporate borrower wilfully defaults, it increases the risk and stress in the banking system. Banks rely on loan repayments to meet the cash demands of their own depositors. Banks that run a liquidity risk can only mean bad news for depositors like you and me. If large companies fail to meet their obligations, it erodes banks' profitability and impacts their financial soundness.

There's a moral hazard angle too. If large companies having the financial clout to pull strings merrily default on bank loans without consequences, why will smaller borrowers pay up? The RBI governor's point, that a large defaulter is robbing the taxpayer and making funding of new investments costlier, is a valid one too.

NABARD & Origo to provide financial leg-up to farmers

National Bank for Agriculture and Rural Development (Nabard) and Origo Commodities, a collateral management firm, have entered into a Memorandum of Understanding (MoU) to support farmers in Andhra Pradesh and Telangana to realize better pricing for their harvest.

This will be done by providing them a facility for pledging their produce under Negotiable Warehouse Receipt financing. Origo allows farmers to make deposits of their produce in its warehouses and obtain pledge financing. "This MoU is going to help farmers to a great extent by

realising the right price by offering them options to sell their produce at the right time. The initiative also focuses on Warehousing Development and Regulatory Authority (WDRA) accreditation so that farmers can benefit from post-harvest loans at 7% p.a. with interest subvention," Jiji Mammen, Chief General Manager, Andhra Pradesh and Telangana Regional Office, Nabard said.

The joint venture would enable farmers to use the warehousing infrastructure of Primary Agriculture Co-operative Societies (PACS) and also more than 100 warehouses managed by Origo

Commodities across Andhra Pradesh and Telangana. Sunoor Kaul, Director, Origo Commodities said: The initiative will yield significant benefits for farmers in Telangana and Andhra Pradesh. The key to success will be to make rural infrastructure accessible to

farmers on the post-harvest side." Origo Commodities will also extend its support in creating multiple integrated marketing platforms and storage infrastructure to sustain the activities of PACS and FPOs on post-harvest side, he added.

No need for PAN to invest in KisanVikasPatra

There will be no requirement to furnish Permanent Account Number (PAN) for investing in the re-launched KisanVikasPatra (KVP). However, the interest earned will be taxable. The instrument was re-launched by Finance Minister Arun Jaitley and Communication Minister Ravi Shankar Prasad to channel more savings from the domestic sector. "There will be no name on the certificate. It will be just like a currency note," Jaitley Said, adding that "it would be better to put currency in the scheme, as it will give interest." The scheme will be available for everyone, not just farmers.

At an annualised interest of 8.5%, money invested in the scheme will double in 100 months (8 years 4 months). Jaitley said KVP would serve two purposes: "one, it would help poor, gullible investors channel their savings toward a trusted Government scheme

instead of Ponzi schemes where their hard-earned savings disappear. "Two, there is an urgent need to raise savings in the country. Such a saving instrument not only earns interest, but also helps in the country's development," he said. In the last two-three years, the savings rate has declined from a record 36.8% to below 30% due to slowdown in the economy. "It is, therefore, necessary to encourage people to save more," the Finance Minister said.

Before being withdrawn in 2011, KVP was very popular among investors and the percentage share of gross collections secured in it after its launch in 1988 was in the 9-29 % range against the total collections received under all National Savings Schemes. Gross collections under the scheme in 2010-11 Stood at ₹21,631.16 crore, which was 9% of the gross collections during the year.

Business correspondents to get minimum monthly pay of ₹5,000: IBA

To give the financial inclusion drive under the 'Pradhanmantri Jan Dhan Yojana' a fillip, banks will ensure that the foot soldiers (or

business correspondents) undertaking the task on their behalf will get a minimum compensation of ₹5,000 per month.

This move comes in the backdrop of a recent RBI survey that almost half of the business correspondent (BC) agents are untraceable. So far, there were no guidelines governing remuneration for BCs, resulting in banks engaging corporate BCs who were least expensive.

According to Indian Banks' Association Chief Executive MV Tanksale, individual BCs appointed by banks will get a minimum compensation of ₹5,000 per month. This remuneration will motivate BCs in rural areas to reach out to vulnerable groups such as weaker sections and low-income groups so that they get universal access to financial services and timely and adequate credit. The individuals/entities whom banks can engage as BCs include retired bank employees, retired teachers,

retired government employees, individual owners of kirana/medical shops, agents of small savings schemes/insurance, non-government organisations, microfinance institutions (MFIs) set up under the Societies/Trust Acts and Section 25 Companies; and MFIs (which are classified as non-banking finance companies). Tanksale also said that under the Pradhanmantri Jan Dhan Yojana, simplified mobile banking based on the service code '*99#' will be launched. Using the service code, users can initiate funds transfer and check the balance in their bank account. The service-code-based facility will work even on the most basic GSM mobile phone. It does not require users to download any software (application) for mobile banking.

Jan Dhan benefits for existing bank account holders too

The Finance Ministry has clarified that those who already have a bank account do not need to open a fresh account under the Pradhan Mantri Jan Dhan Yojana (PMJDY) to get the scheme's benefits. The benefits include an insurance cover of ₹1 lakh and life insurance cover of ₹30,000.

"Because of the incentives announced, many existing account holders have also opened new accounts under PMJDY. The benefits announced under PMJDY can be extended to existing account holders ... and a new account need not to be opened for this," a Finance Ministry statement said.

NABARD launches rural credit fund

NABARD launched a long-term rural credit fund, which was announced in Union Budget 2014-15. Harsh Kumar Bhanwala, chairman, Nabard, said this will motivate cooperative banks and

regional rural banks to extend term loans/investment credit to their clients at concessional rates. Bhanwala said the share of coops and RRBs in investment credit in agriculture and allied sectors was

an abysmal 13% in 2013-14. "It is the investment credit which catalyses capital formation and this initiative taken by the finance

minister will go a long way in promoting agriculture production and productivity," he said.

Mann Deshi Mahila Sahakari Bank spreads wings

The rural cooperative bank run by woman for woman in rural Maharashtra has been breaking several stereo-types. Among the first to be issued a licence by the Reserve Bank of India, the Mhaswad-headquartered Mann Deshi Mahila Sahakari Bank has also been running a business school for rural woman, helping unlettered woman become entrepreneurs. Mann Deshi Mahila Sahakari Bank has acquired a non-banking finance company (NBFC) in Madhya Pradesh and now wants to take its micro-lending initiative to other states as well, says Chetna Gala Sinha, founder and chairperson of the bank.

"At present, Mann Deshi Mahila Bank has seven branches at Satara and Pune. The NBFC model will help us begin micro-lending initiatives in other parts of the country and scale up pan India gradually," she explained. "The model for growth has been very simple, expand branches and, alongside, also open rural business schools for women in the area," Sinha added. Mann Deshi has enabled 1,85,000 women to save, 10,000 to own property and 42,000 to set up businesses and emerge as developers of their local eco-systems. Last year, the bank funded some 74,000 women

entrepreneurs. Today, it has a customer base of over 1,65,000 clients and offers products, including group loans, savings, insurance and pension plans, to women. What has worked in favour of the bank are the new products that have been designed with the consumers in mind. The newest such product is a savings account only for adolescent girls who want to save for higher education. The plan is to give a matching fund to these girls that will not only create a savings culture but also enable them to opt for higher studies, she said. At present, some 1,200 girls in Pune and another 1,500 in Satara district have opened such accounts. These girls manage to save upto ₹3,000-4,000 and, if they are given matching grant, this will help them opt for higher studies, Sinha said. The bank has approached the Maharashtra government with a proposal to offer matching grants to such account holders. The NBFC will also be able to attract funding from NGOs, she said. The US administration had also shown an interest in this initiative, she said.

The bank's business school has now begun to offer formal education in addition to the various vocational courses. For interested women, the school has begun BA/BCom

courses with certificates from the Yashwantrao Chavan Maharashtra Open University (YCMOU). The Mann Deshi Udyogini (MDU), a micro-business school, founded by Sinha with a \$17,500 grant from HSBC, coaches women in entrepreneurship, accountancy, bank finance and marketing skills,

and teaches them to run independent enterprises as vendors, screen printers, bag makers, goat de-wormers and photographers. As on date, the bank has a working capital of ₹100 crore, a deposit base of ₹68 crore and advances of ₹42 crore.

Financial literacy spends of banks to qualify as Corporate Social Responsibility

Financial literacy spends made by banks under the Pradhan Mantri Jan Dhan Yojana is all set to qualify as corporate social responsibility. The Corporate Affairs Ministry has conveyed to the Finance Ministry that the financial literacy expenditure made by banks under PMJDY will be counted as CSR, Anurag Jain, Joint Secretary, and Department of Financial

Services (DFS), said. The new company law requires a company to spend 2% of profits towards CSR from this fiscal if it has a turnover of ₹1000 crore or more, or networth of ₹500 crore-plus or net profit of ₹5 crore or more. On its part, the RBI had allowed banks to decide on their own wisdom the amounts that needed to be spent towards CSR.

Deen Dayal Antyodaya Yojana launched

To impart skills to rural and urban poor, the Government announced Deen Dayal Antyodaya Yojana, which would work towards empowering the population through enhancement of livelihood opportunities. M. Venkaiah Naidu, Minister of Housing & Urban Poverty Alleviation, said, "Under the current urban poverty alleviation programmes, only 790 cities and towns are covered and the Government has decided to

extend these measures to all the 4,041 statutory cities and towns." He added that September 25 will be celebrated as Antyodaya Diwas every year to mark the birth anniversary of Pandit Deen Dayal Upadhyaya. Under the scheme, ₹1,000 crore has been provisioned for urban poverty alleviation during 2014-15, out of which ₹500 crore will be spent on skill development of over 5,00,000 urban poor.

Internet domain names in regional languages

The Government of India launched '.bharat' domain name in different languages including Hindi, Bodo, Dogri, Maithali,

Marathi, Konkani, Nepali and Sindhi. Such domain name will help boost local content. It would help easy identification of a person

or organisation, especially the small time businessmen in various parts of the country. Until now Indian users had only '.in' domain name to give a local flavour to their websites. "Most of the future expansion of the Internet is going to come from Asia, Africa and the developing world. Local languages, content and culture will increasingly become important themes for the future expansion of the Internet. Mobile devices and applications as well as social media will be important determinants of this growth," Ravi Shankar Prasad, Minister of Communications and

Information Technology said.

He said one of the important requirements for Internet growth is the proliferation of content in the local languages and growth of the websites in local languages has direct bearing with the development of content in local languages. "Depiction of the URL of the website in local language will further go a long way in ensuring inclusive growth of Internet. I am sure with the launch of '*bharat*' in Devanagri script would go a long way in spurring the Internet growth and digitising India in an inclusive manner," Prasad added.

Kerala, Goa first states to ensure bank A/c for all under Jan Dhan Yojana

Kerala and Goa have become the first states in the country to provide one basic bank account to every household, achieving the primary goal of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in two-and-a-half months of its launch.

The finance ministry said Kerala and Goa became 100% saturated states in terms of coverage of all households on November 11, 2014. In addition, the Union Territories of Chandigarh, Puducherry and Lakshadweep, and three districts of Gujarat Porbandar, Mehasana and Gandhi Nagar have also covered all households under PMJDY with at least one bank account, it said. "As on 10 November, 2014, 7.24 crore accounts have been opened under PMJDY, of which 4.29 crore are in rural and 2.95 crore are in urban areas," a finance ministry

statement said. "RuPay cards have been issued in case of 3.97 crore accounts."

PMJDY, which was launched by Prime Minister Narendra Modi on August 28, 2014 seeks to cover 7.5 crore un-banked households in the country in the first phase. It provides ₹5,000 overdraft facility for Aadhar-linked accounts and RuPay debit card, besides ₹1 lakh accident insurance cover.

The scheme also envisages channelling all benefits from the Union, state and local governments to the beneficiaries' accounts. The finance ministry said banks have been asked to be prepared for the modified direct benefit transfer for LPG (DBTL) scheme, which is proposed to be launched in 54 districts.

Recently, financial services secretary Hasmukh Adhia reviewed the progress of PMJDY with state-level banking committee (SLBC) conveners of all states. "Banks were asked to undertake Information and education campaign to disseminate information and awareness among the masses," the ministry said. The statement noted that 83% of the survey work has

been completed and banks have been asked to complete the remaining work by November 30. "As per the initial results, on an average, about 80% of the households surveyed have now got at least one bank account," it said, adding that a reward scheme has also been put in place to incentivise the bankers.

61st Cooperative week celebration

61st Cooperative Week Celebrations is being organised by National Cooperative Union of India from 14-20 November 2014. This year the theme of cooperative week is "Cooperative Model for Sustainable and Inclusive Growth".

Shri Mohanbhai Kundariya, Minister of State for Agriculture while inauguration the Cooperative Week celebrations on November 14, 2014 said that the Government will ensure that Gujarat model of cooperative development is replicated in other parts of the country. He elaborated that this model ensures cooperative autonomy, and the cooperatives in Gujarat work in strong partnership with the government for economic growth. The Minister in his speech underlined the importance of involving women and youth in the cooperative movement so the movement could further be strengthened. The role of the State Govts had been crucial in the Gujarat cooperative model that had

won laurels all round. He remarked.

Addressing the function NCUI president Dr. Chandra Pal Singh said if the Govt schemes were implemented through cooperative bodies the poor would greatly benefit from these initiatives. Hitting at Direct Tax Code Dr. Chandra Pal said that it would weaken cooperatives. Farmers are provided with farm loans at 0% interest rate through cooperative banks yet the Gol does not mention a line about cooperatives in its annual budget, he lamented. Nearly 250 million people are connected with the cooperative movement but the number could leap to 500 million people if the Govt. were willing to help, noted Dr. Singh. He further lamented that Constitutional Amendment Bill has not been implemented in a uniform manner, which is affecting democratic growth of cooperatives.

Reserve Bank comes down hard on evasive borrowers

Borrowers unwilling to repay bank loans despite the ability to do so run the risk of being classified as non-cooperative. Clamping down on errant borrowers, the Reserve Bank of India said the move will ensure that companies classified as non-cooperative will not get fresh funds. A non-cooperative borrower is one who deliberately stonewalls legitimate efforts of lenders to recover their dues. Along with the modified definition, the central bank has also prescribed norms for classifying/declassifying a borrower as non-cooperative borrower and reporting information on such defaulters to the Central Repository of Information on Large Credits (CRILC).

This move will help rein in borrowers who have defaulted on dues despite the ability to pay, thwarted lenders' efforts at recovery by not providing necessary information, denied access to assets financed/collateral securities, obstructed sale of securities, and so on. Further, if a promoter/director of a non-cooperative borrower is on the

board of another company, then loans to the latter will become dearer. The central bank's cut-off limit for classifying borrowers as non-cooperative would be those having aggregate fund-based and non-fund based facilities of ₹50 million (₹5 crore) from the bank/FI (financial institution) concerned.

A non-cooperative borrower in the case of a company will also include its promoters and directors (excluding independent directors and government/lending institution nominees). In the case of business enterprises other than companies, non-cooperative borrowers would include persons in charge and responsible for the management of the enterprise. The RBI said banks/FIs will need to make higher provisioning as applicable to substandard assets for loans sanctioned to any other firm that has on its board directors/promoters of a non-cooperative borrowing company. However, for the purpose of asset classification and income recognition, the new loan would be treated as standard assets.

Lok Sabha passes bill to raise authorised cap of RRBs to ₹2,000 crore

The Lok Sabha passed a bill to raise the authorised capital of Regional Rural Banks (RRBs) to ₹2,000 crore and enable them to mop up funds from the capital market. "We are providing flexibility to RRBs to raise capital. It could be

private capital, it could be from the state government," Minister of State for Finance Jayant Sinha said while piloting the bill.

The Regional Rural Banks (Amendment) Bill, 2014, was passed by a voice vote after the

House rejected an amendment moved by BJD member Bhartruhari Mahtab. Sinha said at present there are 56 RRBs and they are doing well. The amendment to raise the authorised capital of the RRBs from ₹5 crore to ₹2,000 crore will strengthen these institutions and further deepen financial inclusion.

Responding to the allegation of Mahtab that this bill will pave way for privatisation of the RRBs, Sinha said the combined capital of the Centre, state government and sponsor banks will not come down below 51%. Moreover, he said, the state governments would be free to raise their contribution in the RRBs

to over 15%, which is allowed under the existing provisions.

According to the provisions of the bill, the share capital of the RRBs could be split into 200 crore equity shares of ₹10 each. As per the existing Act, the ₹5 crore share capital of RRBs is split into 5 lakh shares of ₹100 each. The changes in the RRB Act, are aimed at "strengthening the capital base and improve their overall capabilities".

The amendment envisages that the capital of government entities will not come down below 51% in the RRBs. RRBs were set up in pursuance of the Regional Rural Banks Act, 1976, to meet the credit needs of the rural sector.

Changes in ARDBs

- 1) Shri K.K. Gupta has assumed charge as Managing Director of the Rajasthan Rajya Sahakari Bhumi Vikas Bank Ltd. w.e.f. 10th October 2014.
- 2) Shri D.B. Mukande has assumed charge as Liquidator of the Maharashtra Rajya Sahakari Krishi Gramin Multipurpose Vikas Bank Ltd. w.e.f. 15th October 2014.
- 3) Shri Alok Dixit has assumed charge as Managing Director of the Uttar Pradesh Sahakari Gram Vikas Bank Ltd. w.e.f. 18th October 2014.
- 4) Shri G. Madhurai has assumed charge as Dy. Registrar / Managing Director of the Pondicherry Coop. Central Land Development Bank Ltd. w.e.f. 13th December 2014.

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AGRICULTURAL NEWS

Geographical Identification (GI) tag for MP's basmati

Madhya Pradesh known mainly for its soybean, wheat and pulses, had challenged the decision of Agricultural & Processed Food Products Export Development Agency (APEDA), which functions under the Union Ministry of Commerce and Industry, to deny basmati produced here the GI label on the ground that it lacked the credentials. The Chennai-based Geographical Indications Registry recently quashed the objections raised against the inclusion of MP basmati rice, paving the way for a brighter future for the aromatic grain, farmers who grow it and millers. While the basmati produced here was anyway being exported, the GI tag will bring a host of benefits such as a distinct identity and a higher price in the export market.

While seeking recognition, MP had argued that its basmati has characteristics such as long, slender kernels with a high length-to-breadth ratio, an exquisite aroma, a sweet taste, a soft texture, a delicate curvature, an intermediate amylase content, high integrity of grain on cooking and linear kernel elongation with the least breadth-wise swelling on cooking. A map showing constant production of basmati paddy,

climatic conditions during the last three decades, official rainfall figures, DNA reports of basmati seeds, affidavits of more than 175 farmers, seeds distributed by the government, participation of the private sector and historical documents to prove sowing of basmati paddy in Gwalior and Bagwai areas were among the 22 items submitted as proof by the state government to argue against denial of the GI tag.

Farmers stated that they had been growing basmati for several decades using traditional techniques, and recently using new techniques such as SRI (Medagasker technique). MP being located in the Indo-Gangetic plains, the climatic conditions favour cultivation of basmati, farmers said, and argued that denial of the GI tag would adversely affect them, especially those who are mainly dependent on basmati. The government had pointed out in its application that the area under basmati cultivation ranges from 26,000 to 29,000 hectares. According to a survey conducted in 2009, 4.5 lakh tonnes basmati was cultivated, a substantial chunk of which was exported.

After cows, Punjab looks at better-bred pigs with imported semen

After successful trials using imported cow semen to produce healthy calves, the animal

husbandry department is replicating the trial on pigs. It has already imported sperm of the large white

Yorkshire breed from a Canadian firm to ensure piglets of a superior breed.

Dr H S Sandha, Director, Animal Husbandry, said, "We imported 200 doses to be used only in our pig farms and piglets will be given to farmers after about nine months. We can help farmers import semen which will cost Canadian \$100 per dose. It is costlier than cow semen, the cost of which is within \$2 a dose. We will promote pig farming by providing 50% subsidy on import of semen." He said the pig population has increased 42% in a year as farming is picking up. Pigs are farmed mainly for meat and

farmers have been asked to come up with a processing industries project.

Apart from the animal husbandry department, Polar Genetics Private Limited, a Canada-based firm, had signed an agreement with Punjab farmers to set up a pig farm at Khasi Kalan where the company was to provide frozen pig semen. The company had a buyback arrangement once the pig attains a weight of 100 kg, so that farmers needn't bother about marketing pigs. The company plans to set up slaughtering and processing units to sell pork and other products.

Sugarcane with additional crop between rows

Inter-cropping with sugarcane is not new to Punjab but only a few progressive farmers had taken it up. Punjab having adopted a diversification policy to decrease the area under paddy, cane is one of the key targets with the government targeting a threefold increase in the area under it. It is not anywhere as popular as wheat or paddy, however, it is to deal with farmers' reluctance that the government has been promoting inter-cropping, so that the combination ends up more remunerative than paddy. Through district officials and sugar mills, it has taken up an aggressive campaign.

Progressive farmers in certain areas have reported they are earning three times what they did earlier after they started inter-

cropping their cane with garlic, potato and turmeric. In inter-cropping, cane rows are sown three to four feet apart and this space is used for the other crop. According to estimates of the cane department, around 40 to 50% of the farmers already growing cane have taken to inter-cropping this autumn. At a few places, up to 80% farmers have gone for inter-cropping. It demands fewer seeds of cane, and yet gives a high yield, besides bringing in an additional income from the other crops.

The area under cane is not even 2% area of the state's total agricultural land. Only 81,000 hectares was under it in 2012-13 and that is now up to 96,000 hectares. This is out of 42 lakh hectares under agriculture. Under

the diversification policy, Punjab wants to enhance the area under cane to 6% (2.60 lakh hectares) in four to five years. The overall plan is to divert 12 lakh hectares from paddy to various crops. Currently, out of 24 sugar mills, only 16 are running, nine cooperative and seven private. To run even these 16 mills at full capacity for 180 days, the state needs 2.60 lakh hectares under cane.

Davinder Singh of Adrahman village, Jalandhar, experimented with garlic and earned around ₹3 lakh per acre, including the returns from cane, from his 18 acres sugarcane farm. "I have made 55 rows separated by four feet on a one-acre field, and the space in between was used for garlic," he said. "In inter-cropping we need just 6 to 10 quintals seed against 35

to 40 quintals in the traditional method, which left hardly any room for inter-cropping. There is huge saving on seed and the yield is better and high. Against 350 quintals cane per acre, I have got 585 quintals per acre from my field. Because of better spacing, cane gets air and sunlight and grows thicker. From one acre I have earned ₹1.69 lakh from cane and ₹1.35 lakh from garlic". Many farmers were taken to his farm by deputy director, Agriculture Technology Management Agency, Dr Naresh Gulati. Dr Gulati said inter-cropping increases productivity and gives higher returns than mono-cropping. For spring cane, he recommends two-month crops such as moong and mah pulses.

Kanak-kaich bamboo cultivation

Whatever be the crop, farmers need guidance at the right time for harvesting a good yield. Right from availability of good seedlings, pest management strategies, regular visits to the plantation sites by experts and sourcing a good market for the produce are not only a farmer's tasks but also involve the experts dealing in the particular area.

"The government of Tripura under the Tripura Bamboo Mission, a public-private partnership (PPP) initiative of the Government, has been able to help small and marginal farmers and

tribals to grow a bamboo variety called kanak-kaich in their small holdings and also market their produce, thus helping them get some better income," says Dr. Ram Narayan Pandey, Program Manager, Tripura Bamboo Mission (TBM).

The aim of the mission is to promote bamboo cultivation on individual lands for livelihood generation and enterprise development. The target beneficiaries include schedule caste, schedule tribe and below poverty line households especially forest dwellers who have been

allotted some small acres of land by the government. The district administration supports the initiative under MGNREGA (100 days rural employment scheme) for creation of sustainable assets and employment.

During the pilot scale implementation started four years ago, the innovative high density bamboo variety has been able to get a good response from cultivators as a commercial crop for the poor. "More than 2,000 households in Tripura now grow kanak-kaich bamboo. About 350 applications have been received from several villages to undertake this bamboo plantation in the present year under MGNREGA (100 days rural employment scheme)," informs Dr. Pandey.

The cost of establishing an acre of kanak-kaich variety plantation for first three years works out to

around ₹65,000. The expenditure incurred in the first three years is recovered in the first harvest done during the fourth year of planting and farmers can harvest the crop for 15 years without any intensive management. Mr. Ratindra Acharjee from Vidyasagar gram panchayat who is growing this bamboo variety was able to get an annual income of ₹80,000 from an acre. He received the progressive farmer award during the first bamboo farmers' conference.

"Kanak-kaich variety can be cultivated as a rain-fed crop all over the country especially in the North-Eastern States, Maharashtra, Kerala (Western Ghats), Uttarakhand, Uttar Pradesh, parts of West Bengal and Orissa where soil and air moisture is high most of the year. In other States it can be grown only under irrigated conditions" says Dr. Pandey.

Caring for silkworms in summer

Robust growth of silkworms and silk yield are directly influenced by the quality of mulberry leaves fed. At the same time, climatic condition also plays an equal role as the silkworms are sensitive to the temperature and other abiotic factors. Silkworms prefer cool climate with moderate humid condition. But in tropical zones, silk productivity is generally low in summer season mainly due to hike in temperature, fall of humidity and other factors like water scarcity, pests in mulberry garden and outbreak of diseases.

Many farmers partially irrigate mulberry gardens in summer due to water scarcity which yields leaves with poor moisture content. Feeding such leaves results in adverse effect on growth of silkworms and their immunity. Therefore farmers often face crop failure in summer because of disease outbreak. Earmark mulberry gardens for silkworm rearing according to the availability of water to ensure sufficient irrigation. The leftover gardens can be kept idle without pruning of plants till monsoon.

Drip irrigation helps save water. Black polythene mulching in mulberry garden conserves soil moisture for long time besides controlling weeds and enhances mulberry leaf yield and quality. Dry and hot conditions result in fast evaporation of moisture from the leaves offered to the worms in the rearing bed and they dry before ingestion. Therefore the growth of worms and silk yield are affected. Grow trees around the rearing shed to avoid direct sunlight falling on the walls and to keep the

atmosphere cool naturally. Hang moistened gunny clothes around the rearing shed for flow of cool and humid air inside.

Summer encourages sucking pests like thrips, pink mealybug, papaya mealybug etc in mulberry garden which deteriorate the leaf quality. Spray strong jets of water to wash out the pests from the plants. Release suitable predatory parasitoids in the affected garden according to the pest species. Avoid use of toxic chemicals.

Pusa-1509 to steam up Basmati acreage

Jagat Singh Sandhu, a sixty year old farmer in Masani village near Sangrur in Punjab, is planning to plant the new basmati variety, Pusa 1509, on at least 10 acres of his 11-acre farm, provided he gets sufficient seeds. Till last year, Sandhu used to grow a mix of the popular basmati variety Pusa 1121 and Permal, the non-basmati rice.

As farmers, lured by higher returns, are eager to grow more of the 1509 variety, experts predict that the acreage under basmati would see a quantum leap. Also the increased acceptance of 1509 may boost basmati output significantly. The yield of 1509 is in the range of 2.2-2.5 tonnes an acre, while for the 1121 variety, it is 1.8-2 tonnes. India's basmati exports in the financial year 2013-14 exceeded a record 4.02 million tonnes in volumes and \$4.5 billion in value.

Of the eight lakh hectares under basmati in Punjab, at least 70-80% will be under the high-yielding varieties.

AK Singh, principal rice breeder at the Indian Agricultural Research Institute, who developed the 1509 variety, said the new strain would replace at least 60% of the area under the popular Pusa 1121.

"We also expect it (1509) to replace non-basmati varieties, such as Permal," Singh said, adding that availability of the 1509 seeds should not be a problem as IARI has signed memorandum of understanding with some 15 companies to multiply the seeds. "Over the next three years, our effort is to make 1509 resistant to blight and brown plant hoppers," Singh said.

Women's group ensures payments in dairy farming

"I have to get back my payment of ₹22,000 for supplying milk which is pending from my earlier milk vendor. Even after two years he is not ready to pay. Every time I go to ask for the amount he gives some excuse and sometimes he is not in his shop," says Ms. Chellam from Thiruvennakoilpatti village, Illupur taluk, Pudukottai district. Like her there are many people in different villages with the same story pending payments from the local milk vendor or tea stall for the milk they supplied.

But today, after the Rural Women's Entrepreneur Federation (RWEF) has been inaugurated by the M.S. Swaminathan Research Foundation (MSSRF) in Pudukottai, Ms. Chellam can be confident of getting back her due since there is a group to support her. "The group was started in 2012 with an initial membership of about 450 women members after a survey in the village revealed that cattle rearing was not a popular off-farm activity since irregular monthly payments, faulty milk analysis, lack of knowledge in animal health care and management were some of the common reasons cited," says Dr. R.S. Shanthakumar Hopper, Director, Ecotechnology Center, MSSRF.

Based on a request from the members, a federation called Komatha milk producer association (KMPA) was started, consisting of 375 women dairy entrepreneurs

managed by RWEF. The objective was to promote an integrated system of credit access for animal purchase, create quality and cost effective fodder banks, and establish vermicompost units, manufacture bio products from cow urine and maintain animal health care and insurance.

Through the introduction of Azolla (used as green manure in rice fields), it was demonstrated that feed cost for the animals can be reduced by 20%. During the current year, the project promoted 80 acres fodder sorghum crop to ensure fodder availability for animals during summer. To ensure a transparent management system, a committee consisting of nine members was elected from KMPA who meet once a month to discuss various matters related to their milk business. KMPA has established six milk collection centers till date and has provided a revolving fund loan for ₹13 lakh for purchase of milch animals.

"Though the women received loan from the federation and were willing to sell the milk to the federation, indirect threat came from the buyers that the pending money will not be given if they do not continue to supply the milk to them. The delayed payment is the trump card of the traders for making the women dependent on them and ensures regular supply," says Dr. Hopper. But constant efforts of the group resolved the

delayed payments and the milk supply has increased from initial 100 litres per month to 12,000 litres per month with an annual

gross income of ₹25 lakh. The long term strategy for the RWEF is to increase the milk producers to 1,000 members by 2015 end.

Summer management for dairy animals

Productivity and efficiency of dairy animals goes down drastically during summer. Feed and care are the two key factors which need to be managed for increasing production efficiency. During summer the availability of green fodder and oilcakes is limited whereas dry fodder may be available in abundance in some regions but may be poor in quality (nutrition value) and digestibility.

Feeding economical and providing balanced ration to milch animals is required for profitability, production of milk and a more effective reproductive cycle. Feeding of fodders and concentrate should be in the ratio of 70:30 of total feed. It is advisable to feed additional food in form of cereals and oil cakes.

In summer conditions additional 35% protein rich concentrate mixture is suggested to be fed and clean and cool water to be provided 5-6 times in a day. Feed wheat bhoosa (common in North India) preferably during midnight or any

cool hours of the day. The seasonal feeding and management will help in increasing the reproductive and productive condition of animal body against seasonal stress and in inclement weather also. Further it will ensure in reducing age at first calving and calving interval and increasing lifetime milk production.

Do not change the feeding, watering and management plan abruptly. Only quality feeds preferably ISO certified, should be fed. Animals should be provided with suitable housing to protect against hot winds. Cattle grooming and washing particularly buffaloes, with cold water during summer are advisable. A mild detergent may be used in washing. Grooming and washing should be done at least two hours before milking, followed by wiping of udder with clean duster soaked in mild/ diluted antiseptic solution. Washing of milking place with phenol at least two hours before milking is advisable. Spray baygon/ flit etc. to repel flies and mosquitoes.

Plan according to market requirement before cultivation

To become financially successful, a farmer needs to transform his cropping pattern to suit the current market trend. "He should know the requirement of the market and then plan to cultivate

the right crops. Only then his economic condition can improve. There is no use in simply growing some crops in a routine manner and then hankering after a middleman for selling it. Proper

planning, right crop selection and self marketing must go together to fetch a better income,” says Mr. N. Madhu Balan, Assistant Director, Agriculture, Karimangalam, Dharmapuri, Govt of Tamil Nadu.

A small farmer, Mr. Muthu, grows jasmine and citrus in his 50 acres land and is able to earn more than ₹4 lakh as annual income. All the crops are being grown using goat manure, farmyard manure, groundnut and neem cake. With five goats and five bulls the farmers faces no difficulty in sourcing the inputs. The 25 citrus trees are pruned during summer and the fruits have a good demand in the market.

During season the rates for the jasmine flowers also hit a peak and Mr. Muthu is able to get upto ₹300 a kg for the flowers. All the crops are grown organically. Fish hormone is sprayed regularly over the crops. The farmer says that the glossy appearance on his citrus is due to this hormone, which makes the trees quite sturdy against pest attacks. About 10 kg fish waste is mixed in 10 litres of sour buttermilk and allowed to ferment for 10 to 15 days in a plastic barrel and stirred periodically. It is then filtered and sprayed through a sprayer. Neem, pongam, nochi and eureka leaves are gathered, crushed and mixed with 10 litres of cow's urine and sour buttermilk and allowed to ferment for 10-20 days and then sprayed over the crops as bio pesticide.

“From my 25 acers for citrus I get a monthly income of about ₹50,000. And from my flowers I get an extra income though it is only during flowering season. In a year I earn anything from ₹5 to ₹6 lakh. “This is possible only because I take care of the land personally. I don't depend on workers. Remote control does not work in agriculture. In some places the owner is dependent on his farm hands to do all the work. This is not wise. If you desire to earn money in agriculture then physical presence is a must,” says the farmer.

Similarly, he grows off-season groundnut as intercrop in his citrus garden which is harvested during January. The organically grown three-seeded nuts are big in size and taste well. “The reasons for Mr. Muthu's financial success from his small area are: he does not depend on external inputs for his crops. Everything is sourced from his place itself. Secondly he markets the citrus and flowers himself and his entire family is involved in the work so he need not spend anything extra on labourers,” says Mr. Balan. Mr. Balan has been guiding several farmers in his region on how to do agriculture successfully though an interactive site called Vivasayamkarkalam (let us learn agriculture) on facebook. The site has registered more than 4,731 followers who keep following it regularly.

Root rot in chilli

Among the fungal diseases, root rot complex of chilli is a serious infestation. In standing plants yellowing and wilting are usually preceded by light to dark brown lesions on the stem adjacent to the ground followed by drooping and wilting of infected leaves and gradual wilting of the whole plant. Mature plants dry suddenly. Seedlings affected by this infestation die soon after germination.

Grow resistant varieties viz., CO-4 and DLC-352, moderately resistant varieties, viz., Ajeet-3 DLC-524, F-112-5-83, KCS-2013, Hot pepper Nun-2060. Do not grow susceptible variety Sel-11. Seed treatment with bioagents like *T. harzianum* and *T. viride* (@ 8-10 g/kg seed) can be effective against the disease.

Seed treatments with *T. harzianum* (at 20 g / kg soil), *Chaetomium globosum* (at 20 g / kg soil), garlic bulb extract (at 5%), vitavax (at 1 gm/ kg seed) mixed together or *T. harzianum*, vitavax, garlic bulb extract mixed together

or *C. globosum*, vitavax and garlic bulb extract can effectively manage the disease. Bio agent *Trichoderma* spp and soil application of neem cake, trichoderma, mustard cake or trichoderma together with karanj cake is most effective with maximum seed germination and least total mortality.

Soil drenching of the fungicides viz., tebuconazole (0.1%), carboxin (0.25%) and chlorothalonil (0.20%) at 7 days after transplanting can effectively control the disease (*S. rolfsii*). Soil application (two weeks before transplanting) of organic amendments viz., neem seed powder (at 0.05 g/kg), neem cake (at 0.15 g/kg) and mint manure (at 0.75 g/kg) can control the disease. Seedling root dip with carbendazim+ mancozeb (at 0.1%), addition of vermicompost (100g/kg soil), drenching of fungicide carbendazim+diathane M-45 (at 0.1%) and soil application of *T. viride* (10 gm/pot) were also effective.

A web portal to track production of fruits and vegetables in Maharashtra

In a move aimed to help planners and agriculturists, the Commissionerate of Agriculture is putting final touches to a web portal that will track the production of fruits and vegetables in the Maharashtra state. Claimed to be first of its kind, the portal will have

real-time information about the area under cultivation of fruits, vegetables, flowers and spices in the state.

Joint Director, Horticulture, said this portal would have real-time data about production. "At present, field staff are being trained to use

the software so that they can upload data from their mobile phones. The data will be sent to the central server, and then to the web portal,” he said. Concrete data about production of vegetables has been a grey area given the short time required for the production. He pointed out how, in the span of two-three months, the process of sowing to cultivation of the product gets completed. By the time the physical survey gets over, often the vegetable crop is harvested and thus the surveys do not always bring out the real picture about vegetable production.

In the state, on an average, over 5 lakh hectares of land is under fruits and vegetables. The districts of Pune, Nagpur, Thane, Nashik, Ahmednagar and Amravati are some of the important areas in terms of vegetable cultivation in the state. The online system will act as

an important data bank for formation of clusters. “By nature of habit, farmers take up cultivation of the same vegetable in large areas. We are talking about diversification of crops and this data will help us come up with production plans for the farmers’ clusters,” said Joint Director.

With the state government planning to de-list the sale of fruits and vegetables from the agricultural produce market committees, this move aims to strengthen the farmers who wish to get into direct marketing. Once the data is collated, clusters would be identified and special production plans with diversification of crops suggested. At present, the National Informatics Centre (NIC) is training the staff of the department, and the online portal is expected to be launched.

Modified paddy cultivation method

Rice, a major crop in Andhra Pradesh, is cultivated using water from borewells, tanks or open wells. Since the crop grows in standing water, ground water depletion is usually high especially during summer. In addition to the water shortage, non-availability of labour on time is also increasing the cost of production, forcing farmers to give up rice cultivation citing low productivity and high labour costs as reasons.

SRI (systematic rice intensification) is a proven

methodology for comprehensively managing resources changing the way land, seeds, water, nutrients and human labour are used. “But in present times even SRI has some practical problems. The conoweeder which is an important tool in the cultivation practices is too heavy for pulling in the fields by the farmers. The other problem area is transplanting the seedlings from the nursery to the main field, which is quite labour intensive. With these in mind the Rashtiya Seva Samithi (RASS) Krishi Vigyan

Kendra in Chittoor district has slightly modified the practices using a fibre-bodied 8-rowed paddy seeder (drum seeder) for sowing the seeds and modified the weeder in such a way that it runs between the space in (20 cm) between the two paddy rows,” says Mr. C.Manohar, Programme Coordinator at the institute. With the assistance of NABARD the institute organised capacity building activities like training programmes on modified practices to create awareness and motivate farmers to adopt the technology.

Exposure visits and field days were organised to showcase the performance of the technology and finally to disseminate the same among the farming communities in different parts of the district. “About 60 eight-rowed paddy seeders and 300 conoweederers were purchased and kept in the homes of master trainers in the villages and at the office of the agricultural officer. Farmers who wanted to take up this cultivation could contact the agricultural officer or facilitator for the drum seeder and weeder and return them after completion,” says Mr. Manohar.

“Timely availability of the drum seeders and weederers are an important step in this practice. Farmers should be able to source the machines on time. That is why we have ensured that apart from the agriculture office the machines are also available in their respective villages. Otherwise it becomes a

problem for the grower to get a good yield. Growers were also supplied with pre-emergence herbicide for weed management,” he adds. The institute published a pamphlet on direct seeding technology in Telugu and distributed it to farmers to get their feedback on this. Five facilitators were recruited in this project. In addition to this, KVK also trained ten master trainers and their services were utilized for sowing, weed management etc in the project area.

“Both facilitators and master trainers not only helped the farmers with modified technology but also provided other advisory services like weather, pest and disease management, water management, weed management etc. through the Kissan mobile service of the institute. We started the project during rabi 2010 season and completed it in kharif 2013 season,” says S. Sreenivasulu, subject matter specialist. Demonstrations of this modified SRI method were conducted in 140 villages in the district. Results from the data of three previous years collected showed that the average yield obtained in modified SRI method was 2,574 kg per acre, whereas it was 2,325 kg in the traditional method. About 11% yield increase was observed in the modified SRI method than in the traditional method. An additional advantage was reduction in cultivation cost. It is also observed that the cost of cultivation is

reduced by about ₹4,000-5,000 per acre in this method due to skipping of practices like nursery raising and manual transplanting. Duration of

the crop is also reduced by 7-10 days in modified SRI method compared to conventional practice.

Integrated farming model for wetlands

A multi-commodity farming system consisting of rice, fish, broiler duck and male buffalo was evaluated at the Regional Agricultural Research Station, Kumarakom, under the Kerala Agricultural University for productivity, income, cropping intensity and generation of employment. The study revealed that a one hectare paddy holder in kuttanad has the carrying capacity of a minimum of 5,000 fishes, 750 broiler ducks and 3-5 male buffaloes in addition to rice. In this system paddy is grown during June- October season.

Fish fingerlings are stocked simultaneously in nursery ponds dug near the rice fields. A species composition of grass carp, rohu and catla at 2:1:1 at 10,000 fingerlings per ha is advisable. Broiler duckling varieties like vigoa at 125-150/ha are grown simultaneously in duck houses erected over the fish pond. Ducklings are fed with formulated feed. Spilled over feed and excrements of duck fertilize the fish ponds. It increases the primary productivity and growth of algae

and higher plants.

Fishes feed on them and some of them consume duck droppings directly. The ducklings are sold after 45-50 days when they attain 2.1-2.5 kg body weight. In a year 5-8 batches of broiler ducks can be reared. Duck excrements to the tune of 9-10 tons are recycled for manuring the fish ponds. Paddy harvest gets over in 120-125 days and the fields get inundated after rice harvest. The nursery ponds are broken open and the fishes are released into the expanded water body.

The leftover paddy straw on decomposition generates abundant food material in addition to the duck manure flowing down from the nursery pond. The fish species composition of grass carp, rohu and catla are capable of feeding on aquatic weeds and straw. The field bottoms are tilled by fishes during foraging. Fish harvest is done prior to the next paddy season. Rice fields require no land preparation and preliminary weeding if the plant stand establishment is done within one week after the fish harvest.

Rearing rabbits: A small investment, augments income

With the trend shifting from rearing rabbits merely as pets to that of an income generation it

promises to be a viable option for alleviating rural poverty among small land owners and marginal

farmers, says Dr. C.P. Robert, Programme Coordinator, CARD-Krishi Vigyan Kendra.

The Institute has been promoting this venture for the past few years through several trainings, demonstrations etc. Mr. Ajay Simon, a farmer from Ranny in Pathanamthitta, started this venture with three rabbits in 2011 which died 20 days after starting, proving to be a great failure due to lack of knowledge on proper rearing methods. The entrepreneur took this as a challenge and attended training provided by KVK and started a unit with 10 purchased rabbits 45-day-old New Zealand White and Soviet Chinchilla varieties.

He designed his own cages and housed them in a temporary shed of 600 sq.ft constructed with poles, fishing nets covered with a silpauline sheet for roof. "I found that rearing the animals was quite easy and decided to expand my venture. I bought 30 different varieties based on the advice of KVK experts and scientists from the rabbit rearing department of the Central Sheep and Wool Research Station in Kodaikanal," says Mr. Simon. The entrepreneur was given training on special attention to breeding rabbits to avoid inbreeding. "The impregnated rabbit delivers after 28 to 30 days. Number of litters during each delivery varies. Sometimes it may go up to 12 bunnies whereas

sometimes it may be just one bunny. "The bunnies are given special care for 30 days and then are weaned from their mother who is then re-impregnated. In this way I get around 40 bunnies from each mother a year," explains Mr. Ajay.

Selected bunnies are separated for breeding in future and reared for 90 days till they attain 2kg weight. "A unit of 10 rabbits (eight female and two male) of 60 days old along with cage fitted with automatic feeding and watering system costs around ₹13,500. In a year a unit will be able to produce 2,000 bunnies. The potential net income from this unit after taking into account the cost incurred for feeding and management is around ₹35,000 to ₹40,000 annually," says Dr. Robert.

All the animals are provided concentrate feed at the rate of 100-150 gms per day based on their conditions. Lactating and pregnant rabbits are provided an additional special feed. According to Mr. Simon, to set up a small unit of 10 rabbits an investment of ₹15,000 is required and in a year one can break even in this business. So, whatever is got from the second year is purely profit. "The units can be set up in the terrace or in some small space around the house. This type of vocation is soliciting a lot of interest recently as the revenue it generates is quite encouraging," says Dr. Robert.

Managing ring spot virus in papaya

Papaya Ring Spot Virus (PRSV) is the most destructive disease of papaya in India. PRSV is spread (transmitted) among papaya plants by mechanical activities like pruning, as it is transmitted through the sap. Numerous aphid species like *Myzus persicae*, *Aphis craccivora*, and *Aphis gossypii* spread this infestation. Seed transmission has not been detected.

Initial symptoms appear as a light and dark green mosaic pattern on the leaves. Later on the leaves show a marked distortion and reduction in leaf area. Water soaked oily streaks get formed both on the petioles and on the upper parts of the trunk. Flower and fruit drop is noticed. Pale green patches appear on the young fruits. Fruits from infected trees show bumps / raised projections similar to those observed on fruits from plants suffering from boron deficiency. Characteristic 'ring spots', which form the basis for the disease name start appearing on the fruit,

Number of rings on the fruit varies and the rings become less distinct as the fruit matures and

yellow. Fruit yield from infected plants is lower when compared to healthy plants. Infection at early stages does not produce an economical crop. Once the symptoms have become prominent in the field it would have become too late to spray for aphids as the disease would have already been transmitted to nearby plants.

In order to implement successful vector control, frequent preventive sprays are required. Regular monthly sprays of insecticide (75 ml / 100 L) of water and Multi Micronutrient sprays (0.1%) or Soluble Boron (0.01%) can be done at monthly intervals. Barrier crops like Jowar / Maize should be sown densely along the perimeter one month before papaya transplanting. Plastic silver coloured mulch should be laid on the field. One year crop schedule to maximise production can be attempted in areas with severe PRSV infection. Disease transmission can occur when infected seedlings are used. Hence nurseries should be raised under insect proof net cover.

'Pulse panchayat' gains momentum in Tamil Nadu

Pudukottai district is one of the driest regions in Tamil Nadu. The major crops under tank fed and open well irrigation system in this region in Tamil Nadu are paddy, millets, black gram and groundnut. Pulses like green, black and red

gram are generally grown as a rainfed crops especially during summer. But the harvested pulses do not fetch a good net income because of low yields due to pest and disease attack and poor processing facilities for value addition.

The M.S. Swaminathan Research Foundation (MSSRF), working in Illuppur taluk, Annavasal Block, Pudukottai district, for the past seven years to improve the livelihoods of small farmers, designed a project for increasing the production of pulses in the region. Accordingly the foundation successfully facilitated farmers from five panchayats in the taluk to form a farmers' federation called South VellarAgri Producer Organisation (SVAPO) in which 600 women and men farmers are paid shareholders.

Nearly 50% of members are pulse growers whose seeds are much sought after by the state seeds department in a buy-back agreement. "The concept of the Pulse Panchayat movement evolved spontaneously from the farming community in Edaiyapatti Panchayat. The community passed a resolution to put the maximum available land (474 acres) into pulse production in collaboration with National Pulse Research Station, Vamban, Government Agriculture department, and the foundation," says Dr.R.S.Shanthakumar Hopper, Director, Ecotechnology, MSSRF.

The farmers' field school trained them to cultivate pulses with new climate-smart agriculture technologies like accessing quality seeds, pest and disease resistant varieties, soil health cards, seed treatment, foliar spray of DAP (Di Ammonium Phosphate) / pulse

wonder (a booster with nutrients and growth regulators developed by the Tamil Nadu Agriculture University specifically for pulse crops), line planting, intercrops, integrated pest and disease management options and post harvest processing for drying etc. The village knowledge centre provided timely and area specific information on climate smart agriculture technologies, market prices, animal health care, monsoon behaviour and government schemes through phone in programmes, voice and text messages to enhance pulse productivity and profitability.

A significant achievement in this project is that as a result of a series of farmer participations in this movement was the move from traditional black gram (T9) variety towards Vamban 4 (VBN 4) variety which is resistant to virus and pest attack. In fact several farmers have preferred Vamban variety as it yields more and increases income for them. "The experience in Maharashtra in organizing pani (water) panchayats has shown the value of group endeavour in water harvesting, storage, saving and sharing. India continues to import three to four million tones of pulses every year and thus the initiative of the Edaiyapatti panchayat in initiating a pulse panchayat movement is timely and important development in the history of pulses production in our country," says Prof M.S.Swaminathan.

The foundation was conferred the Bhoomijal Samvardhan Puraskar National ground Water Augmentation award 2010 for promoting innovative practices of

groundwater augmentation which complements the Pulse Panchayat Movement says Dr. R.S. Shanthakumar.

IISR releases farmer friendly technologies

In the recent annual Institute Research Committee meeting of Indian Institute of Spices Research (IISR), Kozhikode, new technologies suitable for spice growers were identified. A high yielding cardamon hybrid with average yields of 985 kg/ha has been identified. The hybrid was evolved by crossing high yielding local cultivar with 'katte' virus resistant variety. A novel transplanting technique in ginger by using single bud sprouts (about 5 g) has been standardized. The technique involves raising transplants from single sprout seed rhizomes in pro-trays and planting in the field after 30 days. The advantages of this technology are production of healthy planting materials and reduction in seed rhizome quantity and eventually reduced cost on seeds. The cost of production is 70

paise.

Partially composted coir pith and vermicompost (75:25) enriched with trichoderma (in talc form) is an ideal potting medium for black pepper nursery for healthy planting material production using plug-trays. The cost of production is ₹6.50 paise/plant. Application of dried coconut leaves as mulch in ginger beds after removing the petiole at the time of planting enhanced yield by 10%. Application of paddy straw in ginger beds at the time of planting + green leaves recorded 36% increased yield compared to recommended green leaf mulch application. Drenching with carbosulfan 0.1% at 50 ml /poly bag containing 1.5 kg potting mixture is recommended for plant parasitic nematodes in black pepper rooted cuttings in the nursery.

A small farm turns into a knowledge bank

Suganahalli is a small village located in the Kappatagudda hill range, 25 km from Gadag in Karnataka. The village has about 230 farm families among which Mr. Basavaraj Chandrappa Navi's farm is quite well known as a "knowledge bank" for farmers, students and extension personnel at University of Agricultural Sciences, Dharwad,

and Indian Council of Agricultural Research (ICAR) New Delhi.

"The farm (spread over 7.5 acres) attracts hundreds of farmers every year. The reason is that Mr. Navi is able to get a net income of ₹8 lakh a year. This has served as an inspiration for many farmers to visit his farm. At a time when agriculture is considered to be a not very

prosperous vocation, people like Mr. Navi tend to kindle the interest and curiosity of others as to how he is able to be financially successful,” says Dr. Sreenath Dixit, Zonal Project Director, Hebbal, Bangalore. The farmer initially started mulberry cultivation and constructed a temporary rearing shed in his farm. In the first year he was able to earn ₹10,000 from the first harvest of the cocoons.

In subsequent years, he increased the rearing size and with it the profit. During 2012-13, he earned ₹3.50 lakh from harvesting seven crops of cocoons in a year. With support from Karnataka Vikas Grameen Bank and Department of Sericulture, he established a permanent silkworm rearing house. He purchased 4.5 acres of land adjacent to his farm out of the earnings from sericulture enterprise. “Earnings from sericulture enterprise gave me a lot of confidence. I wanted to take up an innovative cropping system in my newly purchased land. KVK experts guided me on how to go about it. “I planted 80 sapota, 40 mango, 50 drumstick, 150 palm trees, 100 teak, 25 guava, 100 coconut and 100 neem trees along with fodder crops and grasses in the newly purchased land. Further, I attended a one month training

programme on vermicompost production organised by KVK, Gadag,” explains Mr. Navi.

During his stay at the KVK, the farmer learnt how to recharge borewell and openwell, azolla cultivation, vermigel production, and bio-digester technologies. Immediately after training, he started a vermicompost production unit in his farm. The unit produces 10 tonnes of vermicompost a year. His present annual income is ₹30,000-40,000 from the sale of vermicompost. He has also adopted a bio-digester, as well as borewell recharging technologies in his farm. He owns four cows and cow-dung is utilised as raw material for the bio-digester and vermicompost unit. He has established an aolla unit and cultivates napier and guinea grass as a feed for his animals.

Apart from the income from milk, he gets good profit from the inter crops of drumstick, guava, groundnut, millets, cucumber, maize and sunflower planted in his orchard. Mr. Navi is now getting a net income of ₹65,000-70,000 per month from all these crops and is hopeful of raising the income to ₹1.5-2 lakh a month in the coming years once the mango, sapota, coconut and oil palm crops also start yielding.

Managing paddy straw in Cauvery delta

Paddy straw is the staple food for cattle in Cauvery Delta, as rice is for humans. Consequent to the labour

scarcity and escalating wages, farmers have started harvesting paddy with combined harvesters.

Cauvery Delta farmers heavily depend on harvesting machines resulting in spill over of chopped paddy straw in the field. Large-scale use of combined harvesters led to the situation wherein disposal of paddy straw became an issue resulting in burning of paddy straw in a few pockets. On an average, about 4 to 6 tons of paddy straw/ha is obtained per crop.

During khariff season, rice crop is harvested by combine harvester using the chain type of harvester because of the excess soil moisture. The left over paddy straw is incorporated into the soil by puddling owing to the availability of canal water/ North East monsoon after the harvesting during rabi season. During summer, burning of paddy straw by a few farmers causes human health problems, emission of green house gases

especially carbon dioxide, loss of plant nutrients due to ammonia and potassium volatilisation, loss of beneficial micro-organisms in the soil surface and adverse impact on soil properties in addition to wastage of valuable crop residue.

Instead, the paddy straw if mulched back into the fields has the following advantages: Weed growth is arrested, straw acts as a soil mulch leading to conservation of soil moisture and one third of potash requirement can be saved for the succeeding rice crop. Another option to solve this problem is, modifying the combine harvester to collect and remove the paddy straw from field by proper adjustment in the harvester which needs to be designed and tested under field conditions by agricultural engineers.

Nabard arm expanding service into unbanked areas in North India

Nabard Financial Services (NABFINS), a subsidiary of National Bank for Agriculture and Rural Development, will expand its services in the rural unbanked areas of Odisha, Jharkhand, Madhya Pradesh and Rajasthan. Set up five years ago, with the intent of providing low-cost rural finance in Karnataka, NABFINS is now present in 66 districts spread mostly across Karnataka and Tamil Nadu. NABFINS provides finance at about 16% a year to self-help groups. This is much lower than the

22-24% charged, even by the best performing microfinance institutions (MFIs).

Harsh Kumar Bhanwala, Chairman, Nabard, said: "The company has initiated work in Maharashtra and Andhra Pradesh. The average lending rate for an MFI is 22-24%, but NABFINS is lending at about 16%. At affordable rates, it is possible to give financial services at the doorstep of people in rural areas." The NABARD chief said that the development finance institution lends to NABFINS at 9.6-9.7%.

“After accounting for all expenses, NABFINS earns a margin of 2-

2.5%,” Bhanwala said. Nabard owns 61% stake in NABFINS.

Preventing damping off in onion

Damping off is a major threat to raising healthy onion seedlings during Kharif season in all onion growing areas of the country. Generally 20-25% onion seedlings get damaged due to this disease especially in nursery.

It is caused by soil borne fungal pathogens. Heavy summer showers cause huge mortality in the crop. Integrated approach is an effective and sustainable tool for the management of damping off disease in onion nursery. Farmers are advised to grow Agrifound Dark Red, Arka Kalyan, N-53, Baswant-780, Bheema Raj and Bheema Red for north Indian regions and Agrifound Red, Co-1, Co-2, Co-3, Co-4 and Co-On-5 are suitable for Southern areas.

Raised beds should be prepared for raising onion nursery (15-20 cm above at the soil surface) during Kharif. Soil solarization by covering the nursery beds with transparent polythene for 25-30 days during May and June months is effective to prevent this infestation spread. Soil

treatment with fungal bio-agents like *Trichoderma viride* / *T.harzianum* at 5 kg / ha mixed with of well rotten FYM or vermicompost in nursery bed is advised.

Application of vermicompost at 2.0 tonnes/ha in nursery beds. Seed treatment with fungal bio-agent *T. viride* at 5g/kg seed or Thiram at 2.5g/kg seed is advised. Use 8-10 kg seed to raise nursery for planting in one hectare area is sufficient. The treated seeds should be sown by broadcasting method or in lines at a distance of 7-10 cm on the raised beds.

Avoid sowing of thick seed in nursery beds. Use the shade net to protect the nursery from heavy rains. Irrigation should be done at regular intervals to maintain the optimum moisture in nursery beds. When symptoms of damping off disease are visible, the drenching should be done immediately with Bavistin at 0.1% or Thiram at 0.25% in onion nursery to control the damping off.

A short variety jamun cultivation fetches good rewards

Agriculture is a profession of patience. Apart from the time, labour and financial investment, passion is an important attribute to be successful. “An optimistic attitude is what sets successful farmers apart from the usual herd.

Because a method might fail once, twice or even several times, but the grit and determination to continue trying the same can prove to be rewarding after some time. Mr. C. Jayakumar, a jamun grower from Dindugal is a good example of all

this,” says Mr. N. Madhu Balan, Assistant Director, Agriculture, Government of Tamil Nadu.

The farmer has been growing jamun in 1.5 acre (total area is 10 acres. Amla is cultivated in the remaining area) in Nilakottai taluk in Dindugal district. Jamun trees usually reach a height of 30-35 feet and bear fruits for 60 to 70 years after planting. The farmer, through constant pruning for many years, has been successful in controlling the height of the trees to 18-20 feet.

The farmer purchased about 80 seedlings from a nursery in Andhra Pradesh and planted them at a spacing of 24 feet (8m X 8m). The trees were irrigated through drip lines. After four years, flowering started and fruits set and yield was about 2 kg from each tree. Gradually the yield increased and at the age of eight years 40- 50 kg of fruits per tree were harvested. Now the trees are in the 11th year of planting and the farmer is able to

harvest 60 kg of fruits from each tree.

Only organic inputs like farmyard manure, bone meal, poultry manure, sugar mill press mud and bio fertilisers like azospirillum, phosphobacteria, vermicompost and panchagavya are used. The fruits are collected in trays and delivered to departmental stores and several fruit shops. Each fruit weighs approximately 15 gm and tastes well due to organic inputs. The demand is quite good according to the farmer. The farmer develops jamun seedlings for others based on prior order. It takes 5-6 months to produce quality seedlings. The expenditure for maintaining the tree is very low and Mr. Jayakumar suggests other farmers to try this out in their fields. He is ready to guide and offer his suggestions for those farmers interested in getting into this cultivation.

Management of post harvest diseases in mango

Mango fruits are susceptible to many post harvest infestations. These diseases are mainly due to fungi and bacteria. Harvest injury, defective handling, inappropriate temperature and humidity affect the storage life of the fruits. Presence of blemished fruits with good ones also contributes to the decay and damage. If there is a surface bruise or injury to the fruit, micro-organisms such as bacteria, yeast and molds invade into it and cause internal decay. High

temperature and humidity accelerate process of post harvest decaying by microorganisms.

Control of diseases occurring on leaves, stems and flowers (pre-harvest) are important in reducing losses. Similarly, post-harvest temperature management and proper handling during storage and transportation are equally important, since high temperature and injuries or wounds would lead to further losses. Post harvest treatments do not provide complete

disease control measures if pre-harvest diseases are not taken effectively. Following can be noted;

- During flowering stage, spray with Mancozeb at 2.5 grams/litre on weekly basis to control fungal diseases.
- During flowering stage, if there is rain, it would be better to apply Prochloraz (462 gram/kg) mix along with Mancozeb at an interval of 3- 4 weeks.

Post harvest dip treatment of fruits with fungicides can control the diseases during storage with

the help of the following treatments. Three sprays of Carbendazim (0.1%) or Thiophante-methyl (0.1%) at 15 days interval should be done in such a way that the last spray falls 15 days prior to harvest. Treatment of fruits in Carbendazim (0.1%) in hot water at 52 degree Fahrenheit for 15 minutes can also help control the infestation.

At the time of harvesting, infested fruits should be removed and destroyed manually. Use correct equipment at the time of harvesting fruits to avoid damage.

Managing termite menace in crops

Even though termites are of great economic importance and distributed widely, very little information is available on different species of termites in India. It is reported that 190 species of termites are there attacking a wide variety of crops like cereals, annuals, shrubs, living trees and timber. Although termites are strictly tropical insects they invade the sub-tropics and to a limited extent, the temperate zone. The insects attack several agricultural and horticultural crops. It is estimated that the loss accumulated due to damage in these crops may run to several millions of rupees per year.

The important termite species invading different crops includes *Odontotermes obesus*, *O. wallonensis* and *Microtermes obesi*. Among them *Odontotermes obesus* is an important termite species

which infests wheat, barley, sorghum, cotton, sugarcane, groundnut, coconut, sunhemp, chillies, mango, citrus, grapevine, peach; *O. wallonensis* is a major pest on maize, finger millet, redgram, sugarcane, groundnut, niger, castor, coconut, mango, jackfruit and cashew. *Microtermes obesi* attacks several crops like wheat, barley, oats, maize, pearl millet, pulses, cotton, jute, sugarcane, groundnut, coconut, sunhemp, chillies, vegetables, plantation crops, potato, cassava, chrysanthemum, rose and fruit trees.

Management

- Deep ploughing or hand tillage exposes termites to desiccation and to predators, thus reducing their number.

- Pre-planting tillage also destroys the tunnels caused by termites and minimises their foraging activities

and associated damage.

- Complete destruction of mounds and removal of queen termites are effective control measures against mound building species.
- Partial destruction of mounds is unlikely to solve problem if nymphs

are present during the time of dequeening because replacement reproduction may develop.

- High density sowing, followed by thinning of surviving plants reduces anticipated losses due to termites.

Don't blame GM crops alone for farm distress: MS Swaminathan

Eminent agriculture scientist Dr. MS Swaminathan has said it is not right to put the entire blame on the GM (genetically modified) crops for the farm distress in the country. He said it is one of the several factors that affect the farm sector and requires a different approach to tackle it.

"There are conventional methods available to identify a gene. Before you go for GM method, you must ask yourself whether you could achieve the same result using the conventional methods," he said. What must Govt. do is to put money in areas that would help farmers

improve their income. There is a huge mismatch between the production and post-harvest technologies. They should build infrastructure such as cold storages," he said. He said the Government is setting up a Genetic Garden at Kandahar in Afghanistan and a Rice BioPark in Myanmar.

It's time for ICAR to establish International Agricultural Research Services," he said. Similarly, the ICAR should start a sub-cadre to take care of special needs of agriculture in North-Eastern States, he said.