World Bank Project (2007-16)

'e-Velanmai' Approach of Extension through Android app in Tamil Nadu

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EXTENSION ISSUE

- Appropriate scientific advice is not reaching farming community effectively in a timely manner.
- How best the available extension manpower can be used effectively & efficiently ?

CONCEPT OF e-VELANMAI (e-Agriculture)

- It is a combination of personal & ICT based, demand driven, participatory and sustainable extension approach to provide appropriate and timely agro advisory services by Agrl. experts to the farmers through Field Extension Coordinator on need basis.

Action research process

- **Pilot testing : 2007 - 2008 (Public Model)**
  2008 - 2011 (Paid Model)
- **Sub Basins : Palar, Aliyar and Varaghanadhi**
- **Upscaling : 2011 – 2012 (19 sub basins)**
  2012 – 2013 (26 sub basins)
- **Adoption : 2015-16 (100 Blocks) / 13 districts**

Technology transfer process in e-Velanmai (2007-2013)

TN - IAMWARM PROJECT, CARDS, TNAU

e-velanmai - ICT based Agricultural Extension Model

I

Farmer calls Field Coordinator (FC)

II

FC captures symptoms

III

Image sent to expert for advice

IV

Scientist analyses and sends recomendation

V

Farmer / FC receives advice

VI

Farmer adopts the advice

Membership fees based on farm size

	Membership money / Farmer	
Farm size	2007 -2011	2011 - 2013
< 5 ac	Rs.50	Rs.50
5 – 10 ac	Rs.200	Rs.100
> 10 ac	Rs.300	Rs.150

e-Velanmai Membership Card

தேதி	வேளாண் இடர்பாடுகள்	ஆலோசனைகள்

ஒருங்கினைப்பாளர் தொலைபேசி :

இ - வேளாண்மை விரிவாக்கத் திட்டம்

நீர்வள நிலவளத் திட்டம்

(TNAU - TN - IAMWARM PROJECT)

வேளாண்மை மற்றும் ஊரக மேம்பாட்டு ஆய்வு மையம்
தமிழ்நாடு வேளாண்மைப் பல்கலைக்கழகம் கோயமுத்தூர் 641 003.
மின் அஞ்சல் : evelanmai@gmail.com

இ - வேளாண்மை விவசாயி உறுப்பினர் அட்டை

உ எண் : தேதி :

விவசாயி பெயர் :

தகப்பனார்/கணவர் :

முகவரி :

தொலைபேசி எண் :

உறுப்பினர் தொகை : ரூ.

உபவடி நிலம் :

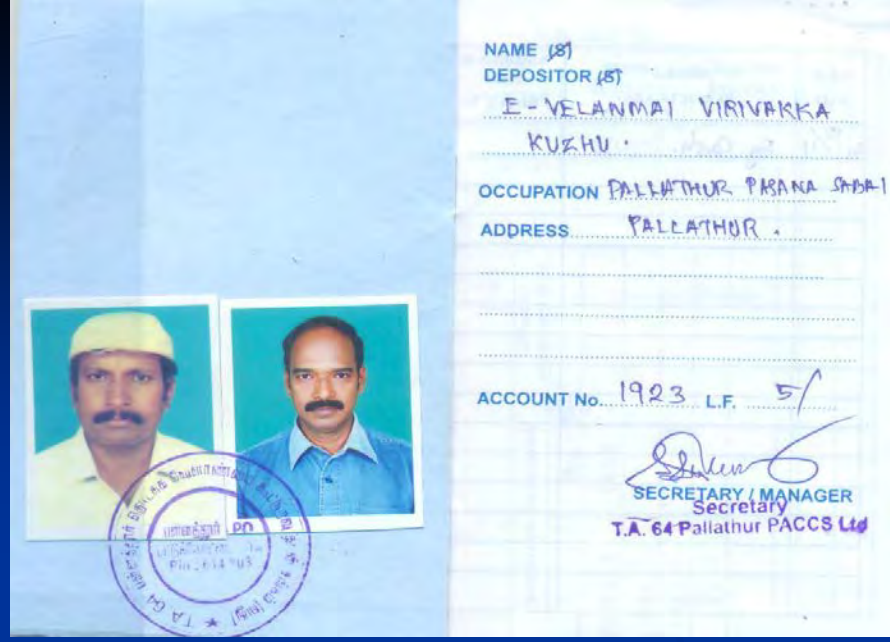
பாசன சபை :

சாகுபடி பயிர்கள் :

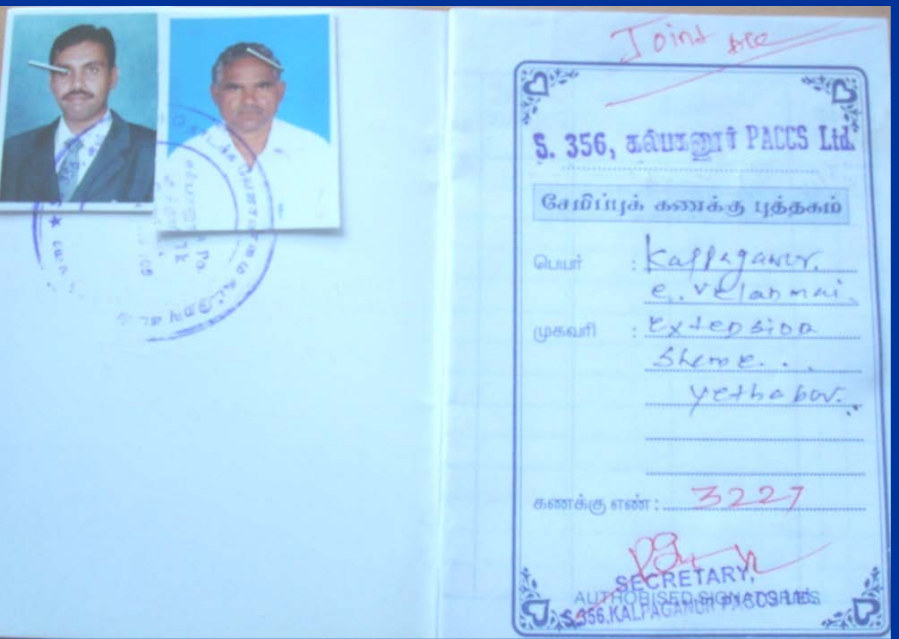
பரப்பளவு (ஏக்கர்) :

பாசன சபைத்தலைவர்

முனைவர் ச. கார்த்திகேயன்
இ - வேளாண்மைத் திட்டத் தலைவர்



Membership money deposited in WUA account at Bank



Farmers availing e-Velanmai services

Year	No. of farmers enrolled									Total No. of members enrolled		
	<5 ac			5-10 ac			>10 ac					
	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL
2007-11	913	102	1015	81	10	91	72	3	75	1066	115	1181
2011-13	6517	877	7454	1733	83	1816	54	1	55	8365	961	9326
Total	7490	979	8469	1814	93	1907	126	4	130	9431	1076	10507
%	71.29	9.32	80.60	17.26	0.89	18.15	1.20	0.04	1.24	89.76	10.24	100.00

Membership amount collected

Year	Amount collected (Rs.)									Total Amount Deposited (Rs.)		
	<5 ac			5-10 ac			>10 ac					
	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL
2007-11	45650	5100	50750	16200	2000	18200	21600	900	22500	83450	8000	91450
2011-13	329250	44200	373450	173300	8300	181600	8050	150	8200	510600	52650	563250
Total	374900	49300	424200	189500	10300	199800	29650	1050	30700	594050	60650	654700
%	57.26	7.53	64.79	28.94	1.57	30.52	4.53	0.16	4.69	90.74	9.26	100.00

Crop status image and advices

Maize - Cob borer

Helicoverpa armigera

Symptom

Feeds on silk and developing grains

Recommendation

Acephate 250 gm / ac

Extension advices

Name of the WUA / Social Group	Subject-wise No. of advices given								Total No. of advices given		Grand Total
	Pathology	Entomology	Physiology	Soil science	Agronomy		Marketing	Others			
	PB	PB	PB	DB	PB	DB	DB	DB	PB	DB	
Total	5643	5343	1577	496	764	4117	1301	1028	14985	5274	20259
%	27.85	26.37	7.78	2.49	3.77	20.32	6.42	5.07	73.97	26.03	100

Average turn around time for TOT : 15 min. to 2 hrs

Adoption status

Sub basin	Number of queries	Number of advices adopted	*Success rate (%)
2007-2011	1474	1385	93.96
2011-2013	18785	15757	89.67
Total	20259	17142	91.81

Rate of adoption 84.61 %

*(Success rate due to the adoption of advices among the adopted farmers)

Name of the farmer / Village	:	Mr.V.Dharmasekaran Thaligaividuthi village
Crop	:	Coconut
Crop area	:	4.5 ac
Problem identified	:	Button shedding in coconut
Advice given	:	Root feeding of TNAU coconut tonic @ one packet (200 ml) per tree
Benefits perceived	:	Additional income of Rs.75/tree

Name of the farmer / Village	:	Mr.G.Rukumani, Nagal village
Crop	:	Jasmine
Crop area	:	0.50 ac
Problem identified	:	Bud worm larva pest
Advice given	:	Profenofos 50 EC @ 2 ml/lit
Benefit perceived	:	740 kg added yield was realised

LESSONS LEARNT

1. Appropriate farm specific and timely agricultural extension advices can be offered by the agricultural experts to solve the farmer's problems based on the crop status images sent from the field using ICT tools.

2. Farmers will come forward to pay a nominal fee based on their farm size for accessing quality and timely extension advices.

3. The existing manpower (BTM/ATM) of ATMA can be involved effectively and efficiently to transfer agril. advices to farmers through e-Velanmai.

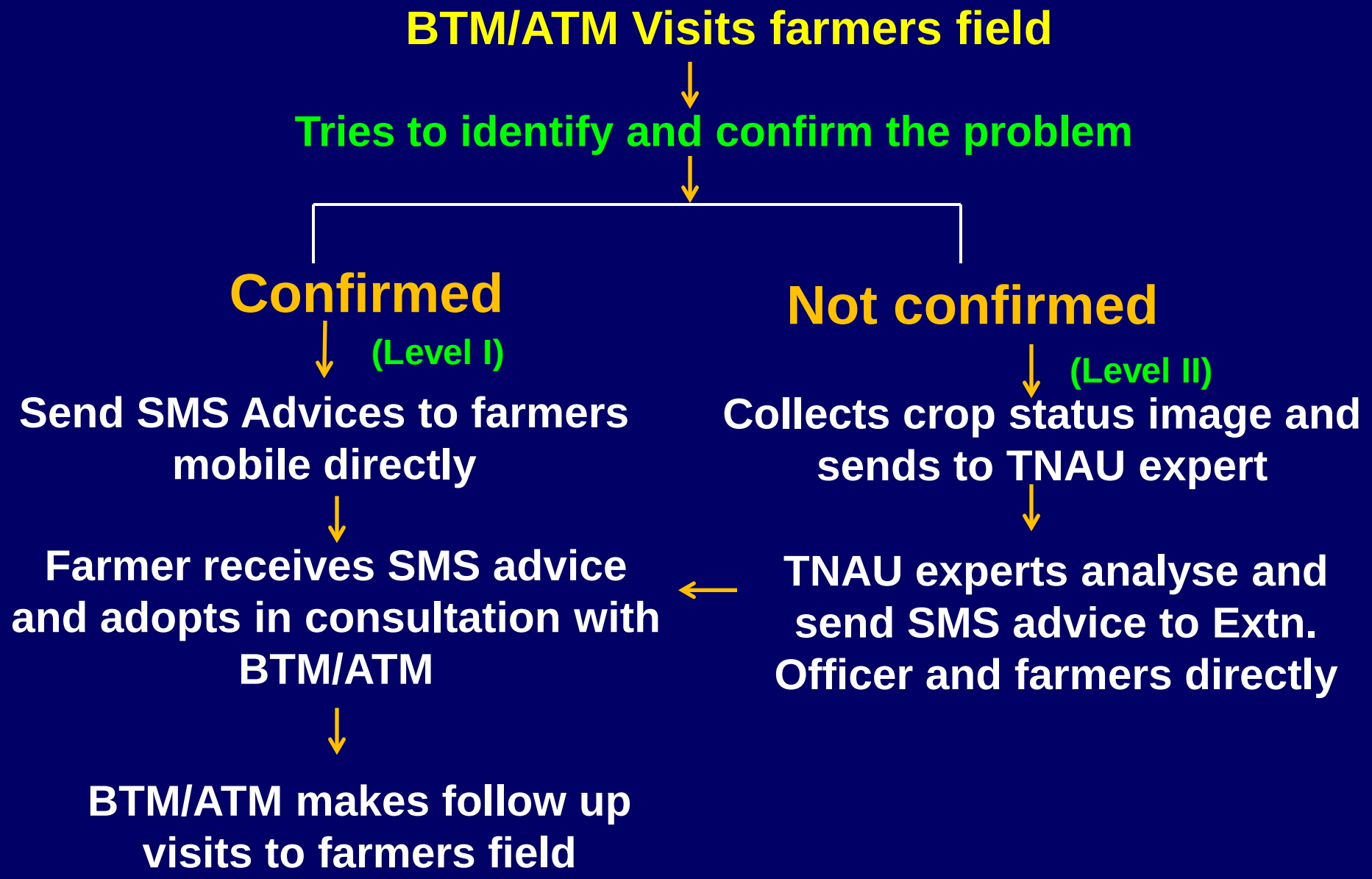
4. Combination of Personal + ICT based approach of extension is effective and timely.

Adoption of e-Velanmai

- GoTN has approved the ‘e-Velanmai” extension approach for implementation in 100 blocks of Tamil Nadu through the extension officials (BTM/ATM) of the Department of Agriculture.

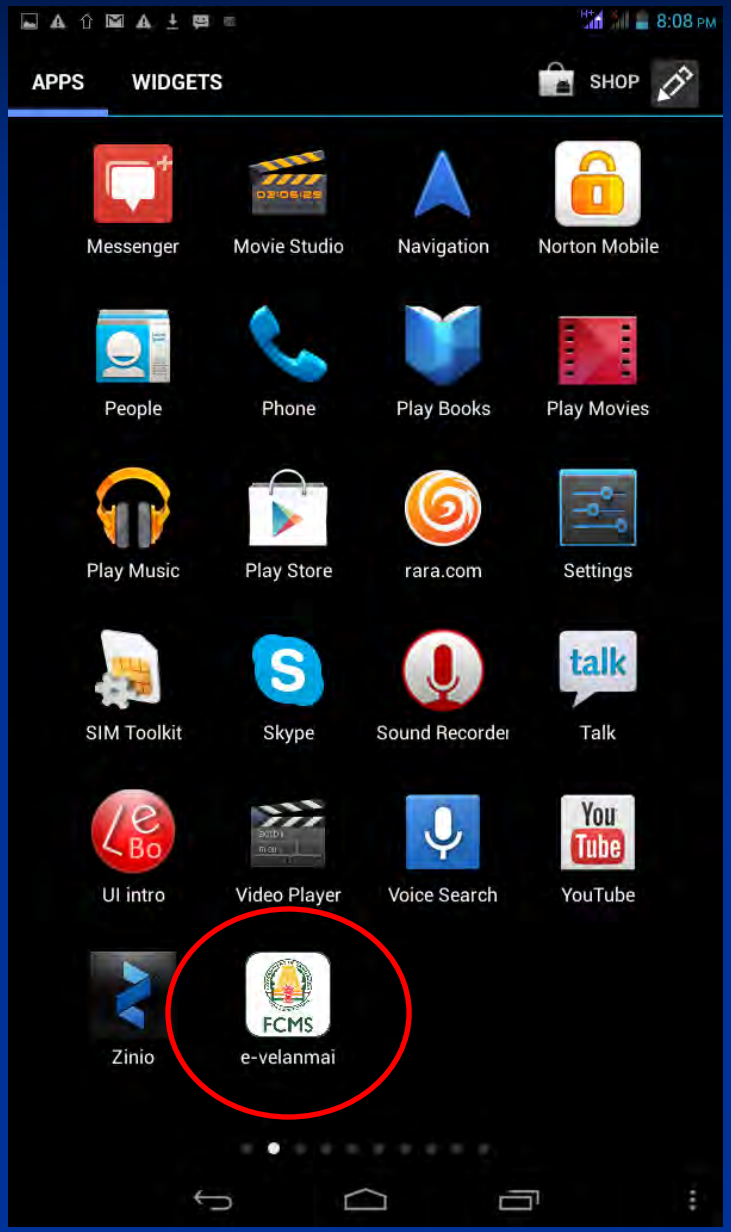
- G.O.4(D). No. 11 Dt.15.05.2014 Agriculture (WD2) Department

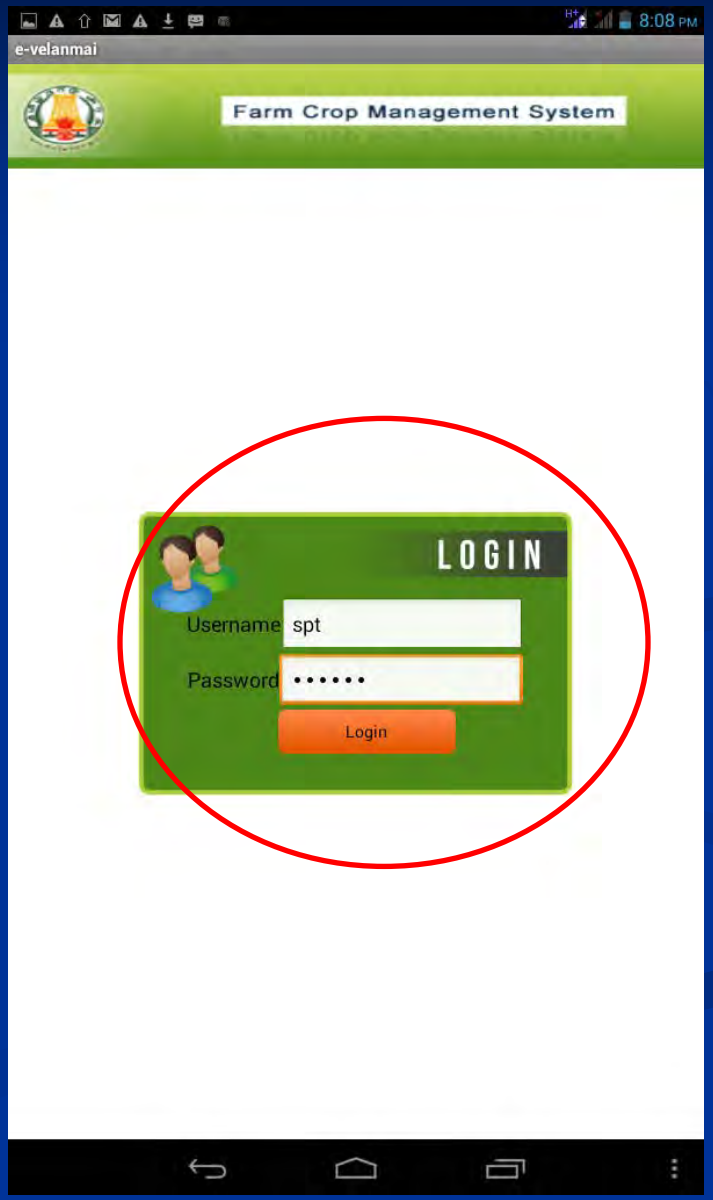
Technology Transfer through Android app (2015-16)



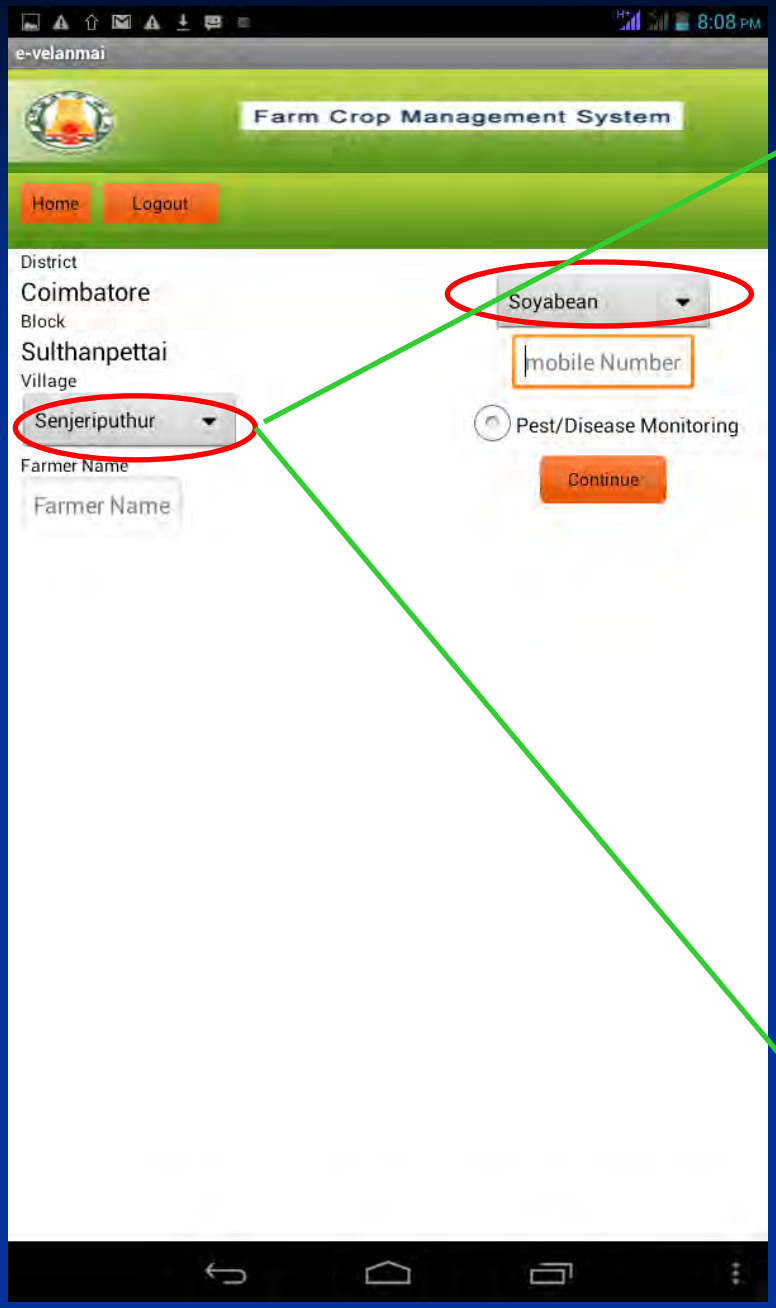
HOW TO DO e-Velanmai using Android app ?

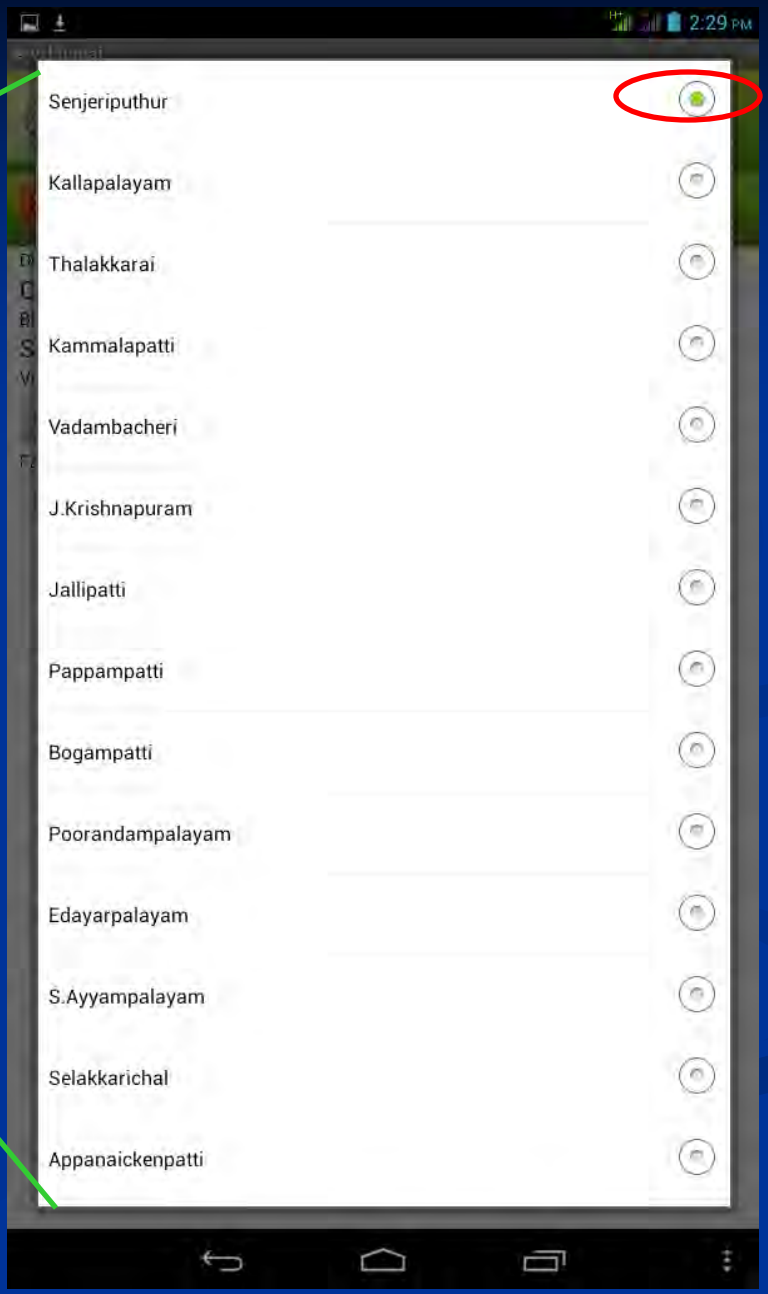
1. Click the e-Velanmai app
2. Enter the User Name and Password



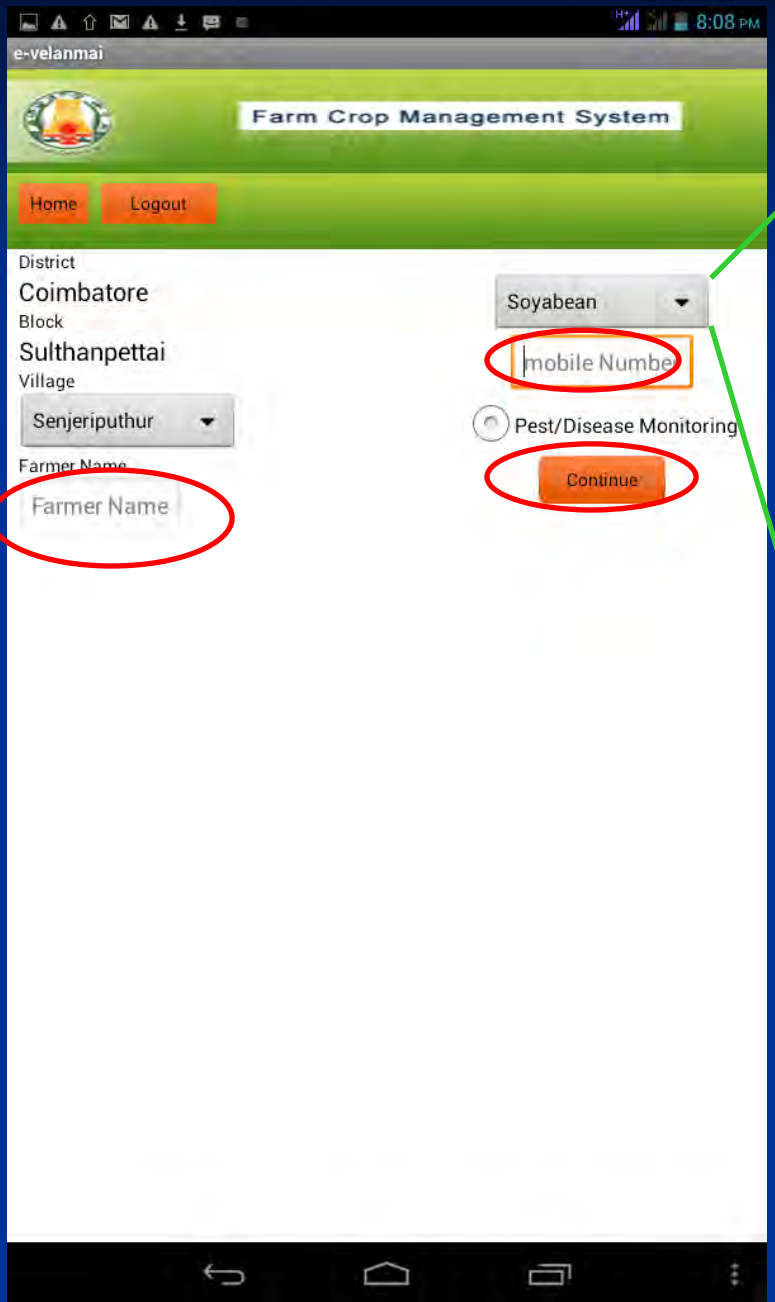


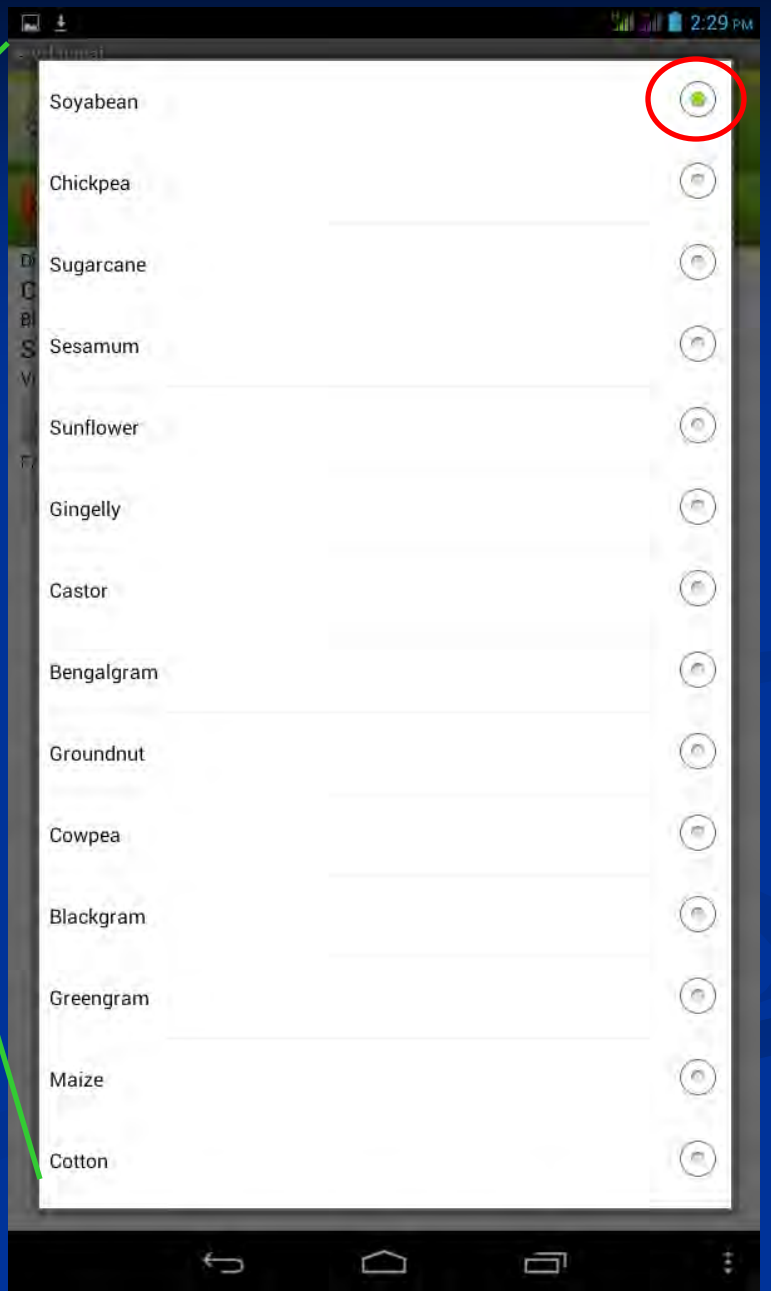
3. Select the target village in the Block



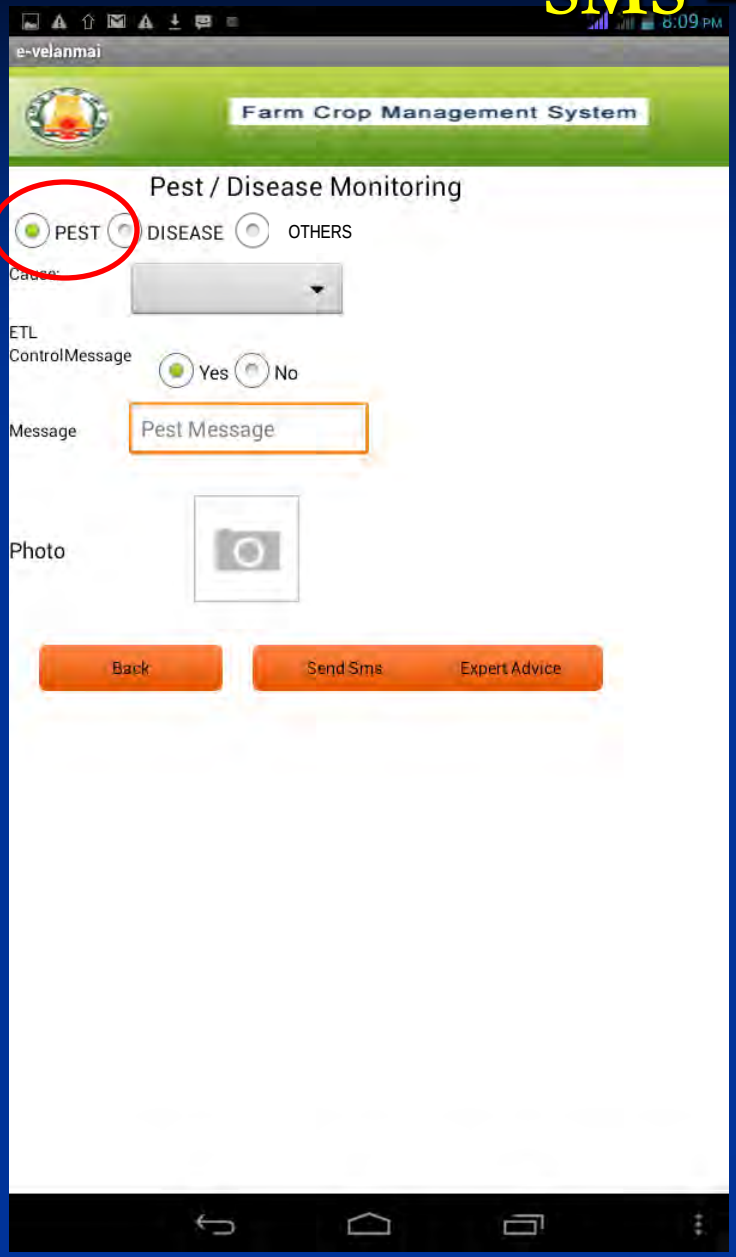


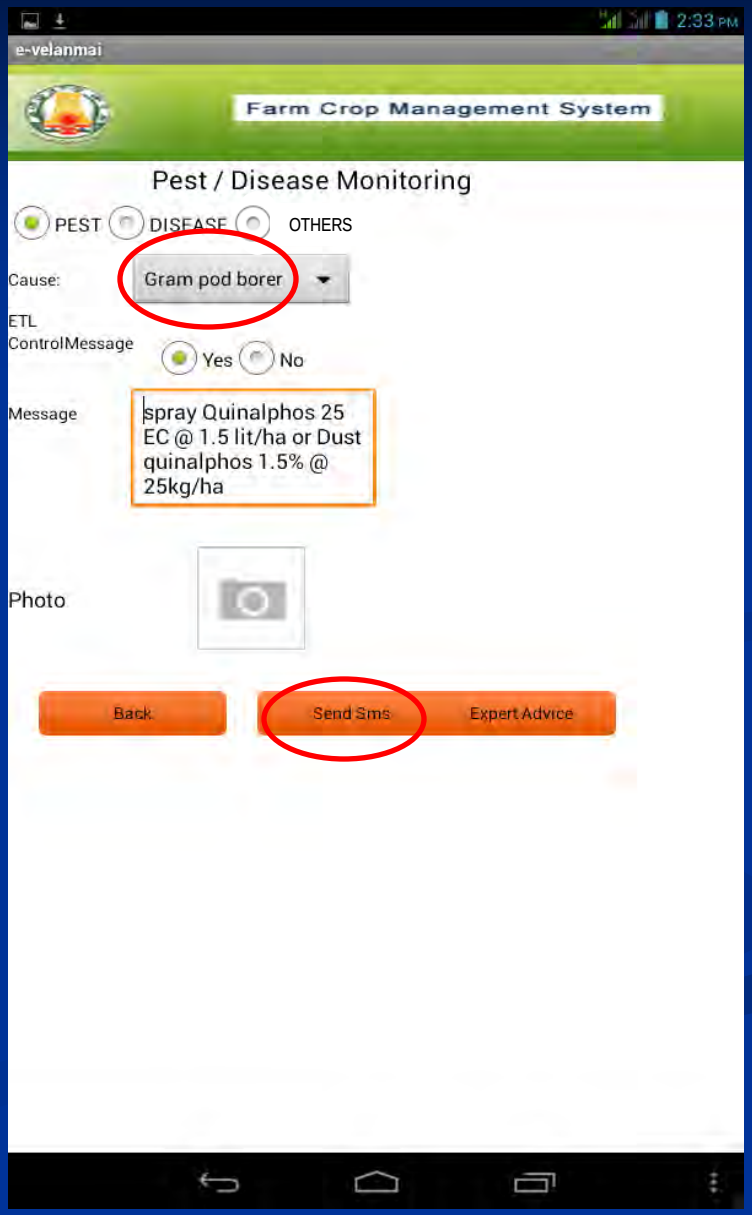
4. Select the crop then enter the farmer name and mobile number





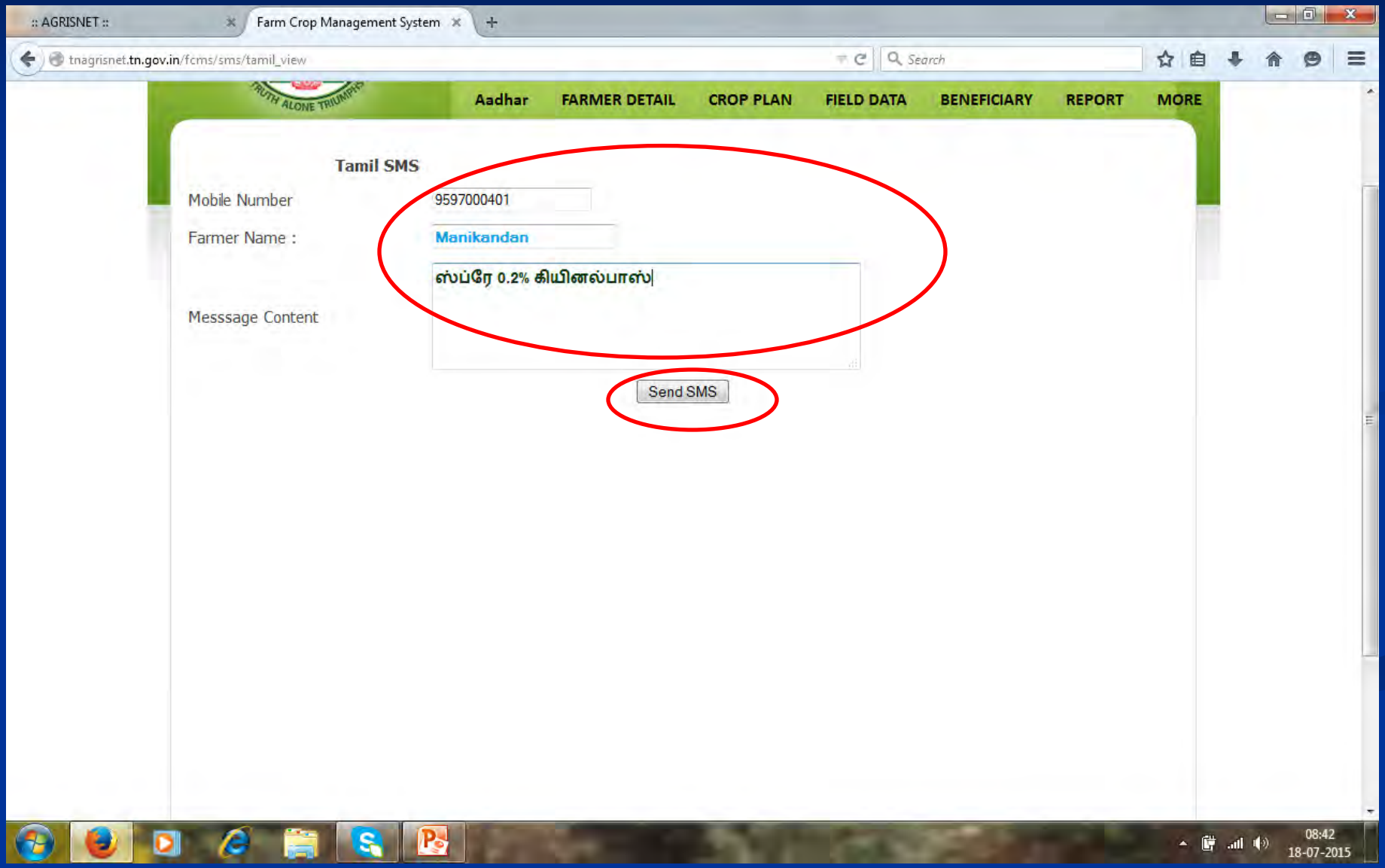
5. Identify pest/disease. Advice pops up and click Send SMS – Level I



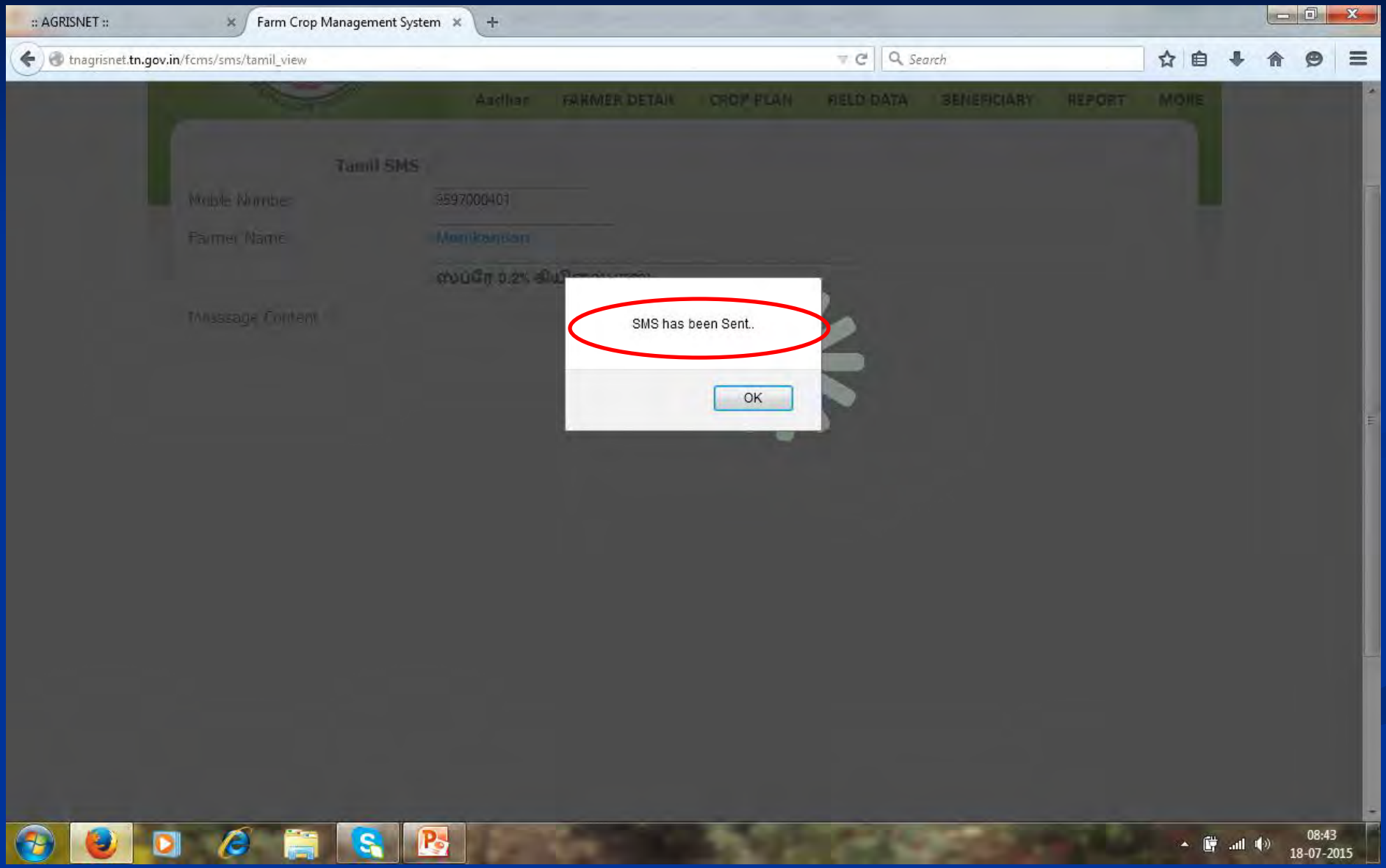


6. To send SMS in Tamil, click 'MORE'

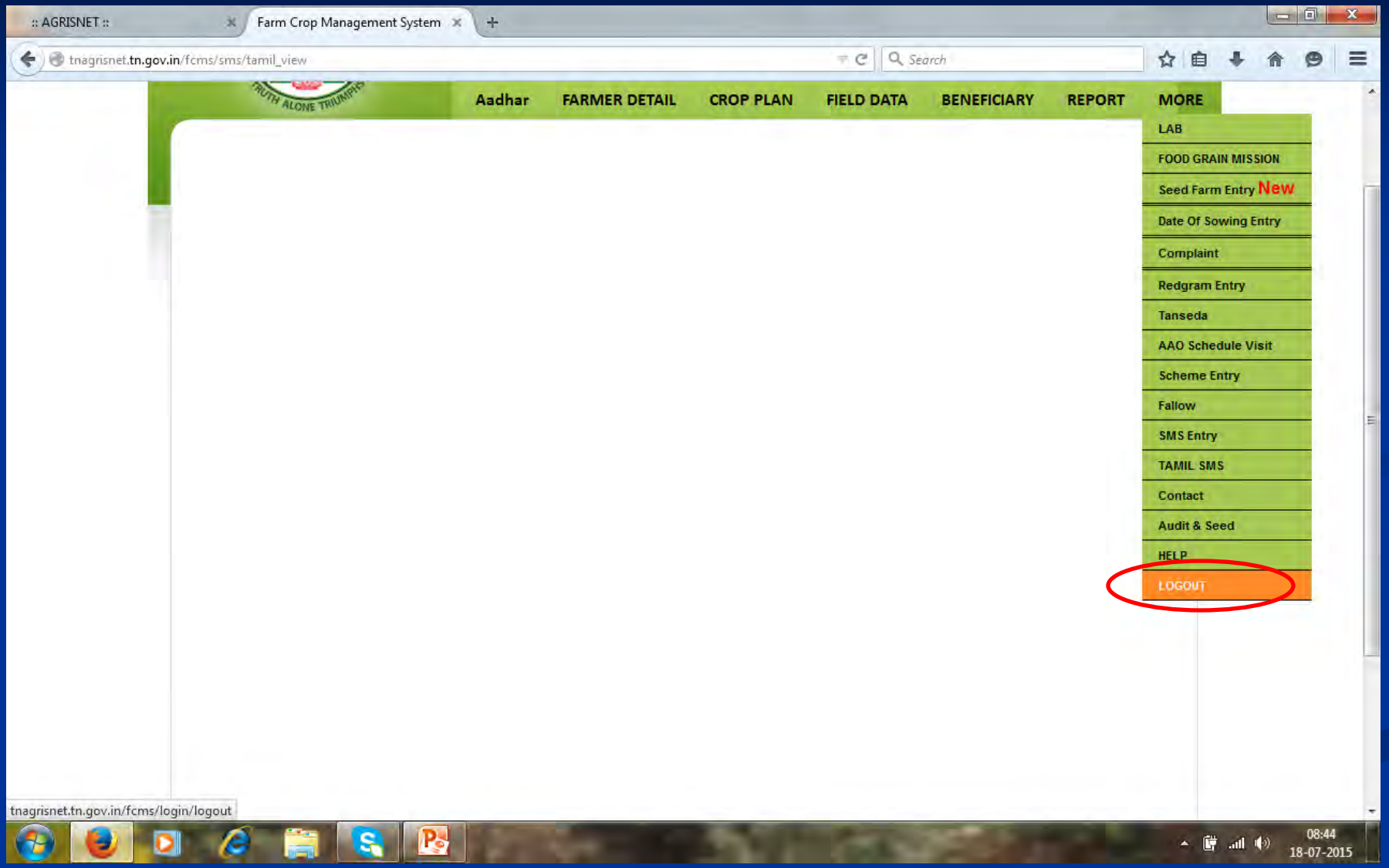
7. Enter the advice in transliterated version and send SMS



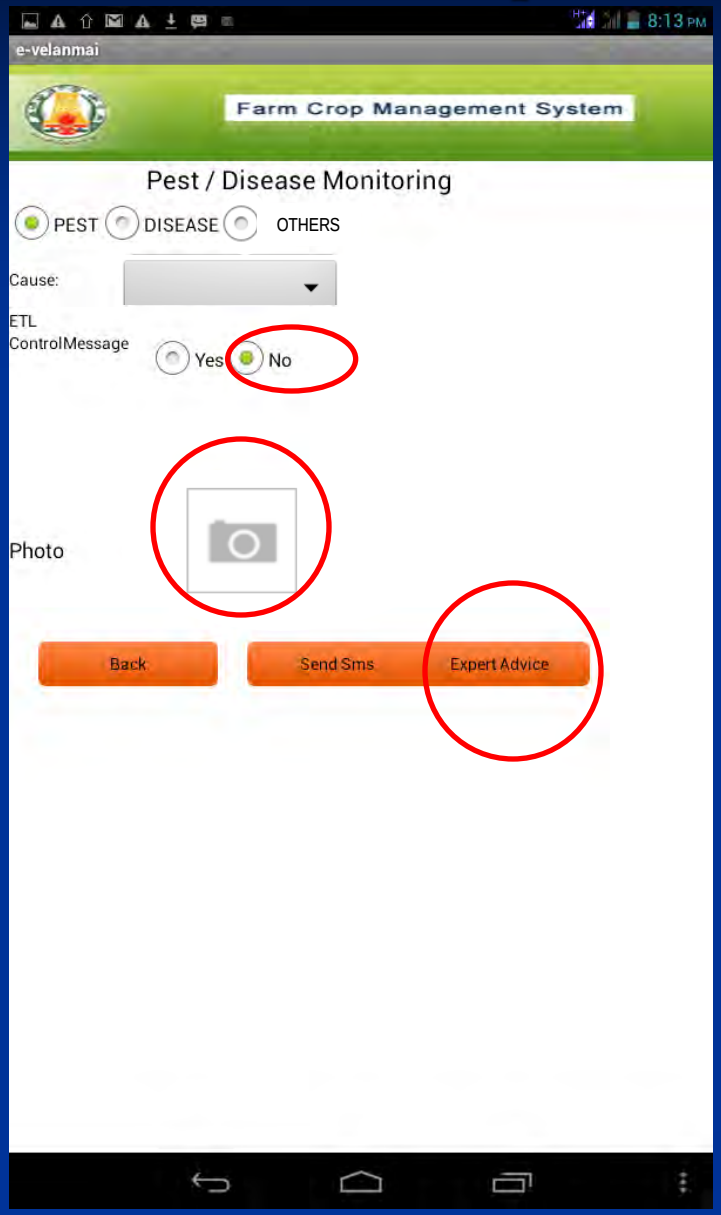
Confirmation message will be displayed



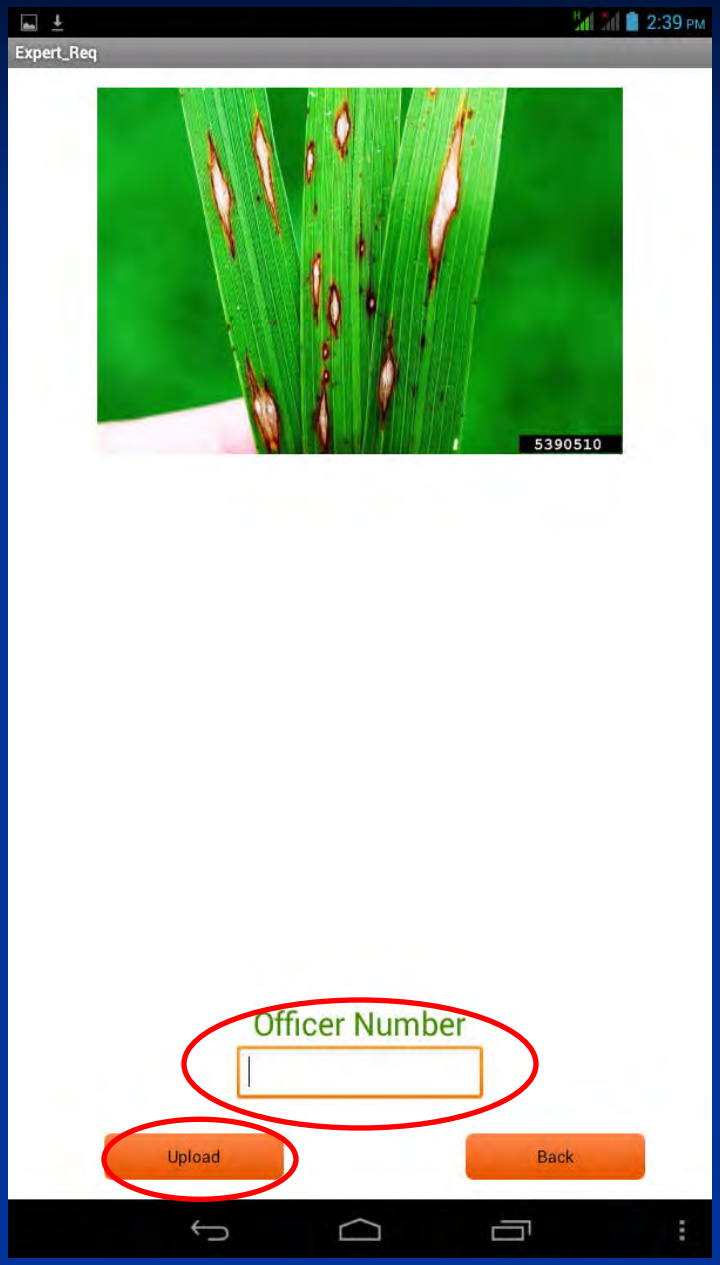
8. ‘Logout’ to end the process

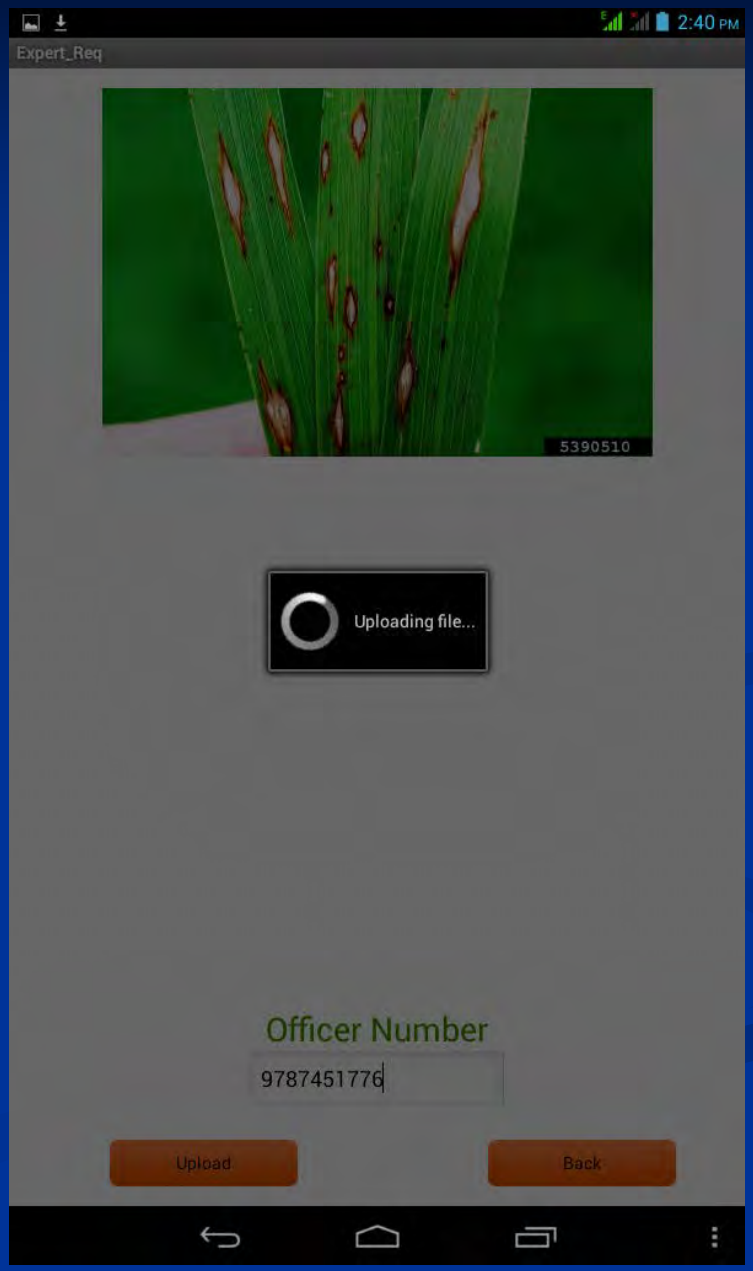


9. Unable to identify the pest, click No and upload the symptom from gallery

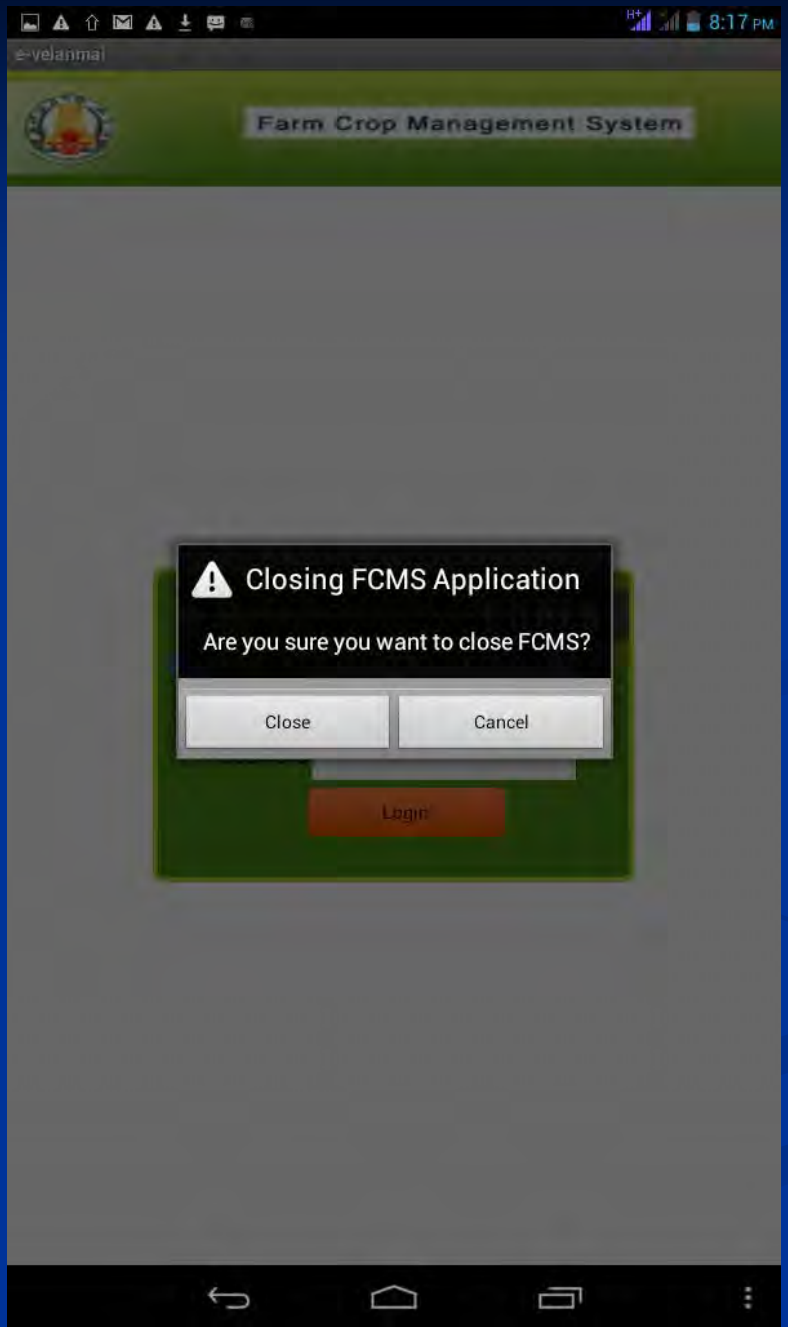


10. Enter the Extension officer's mobile number and up load





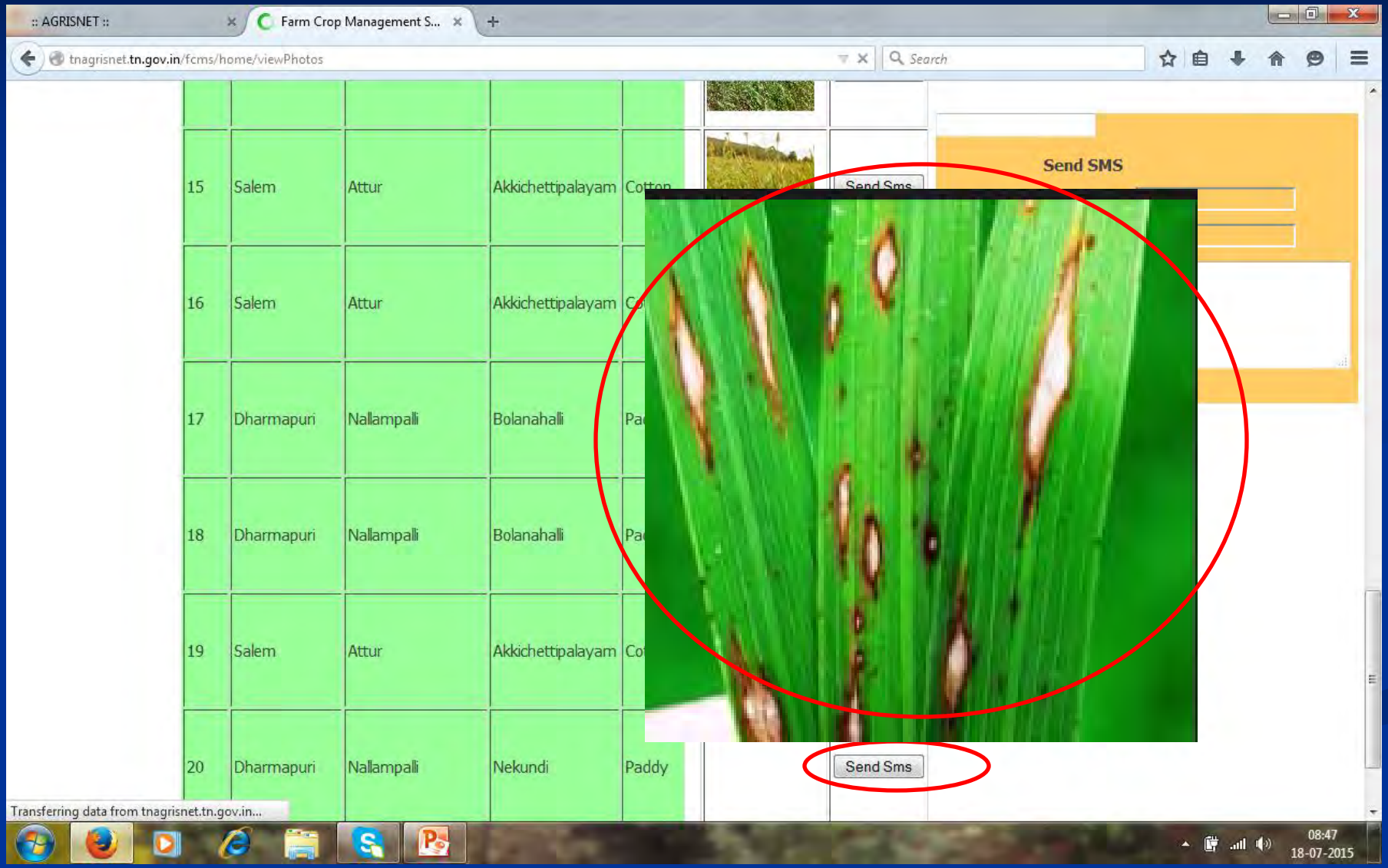
Expert at Level I can close the app



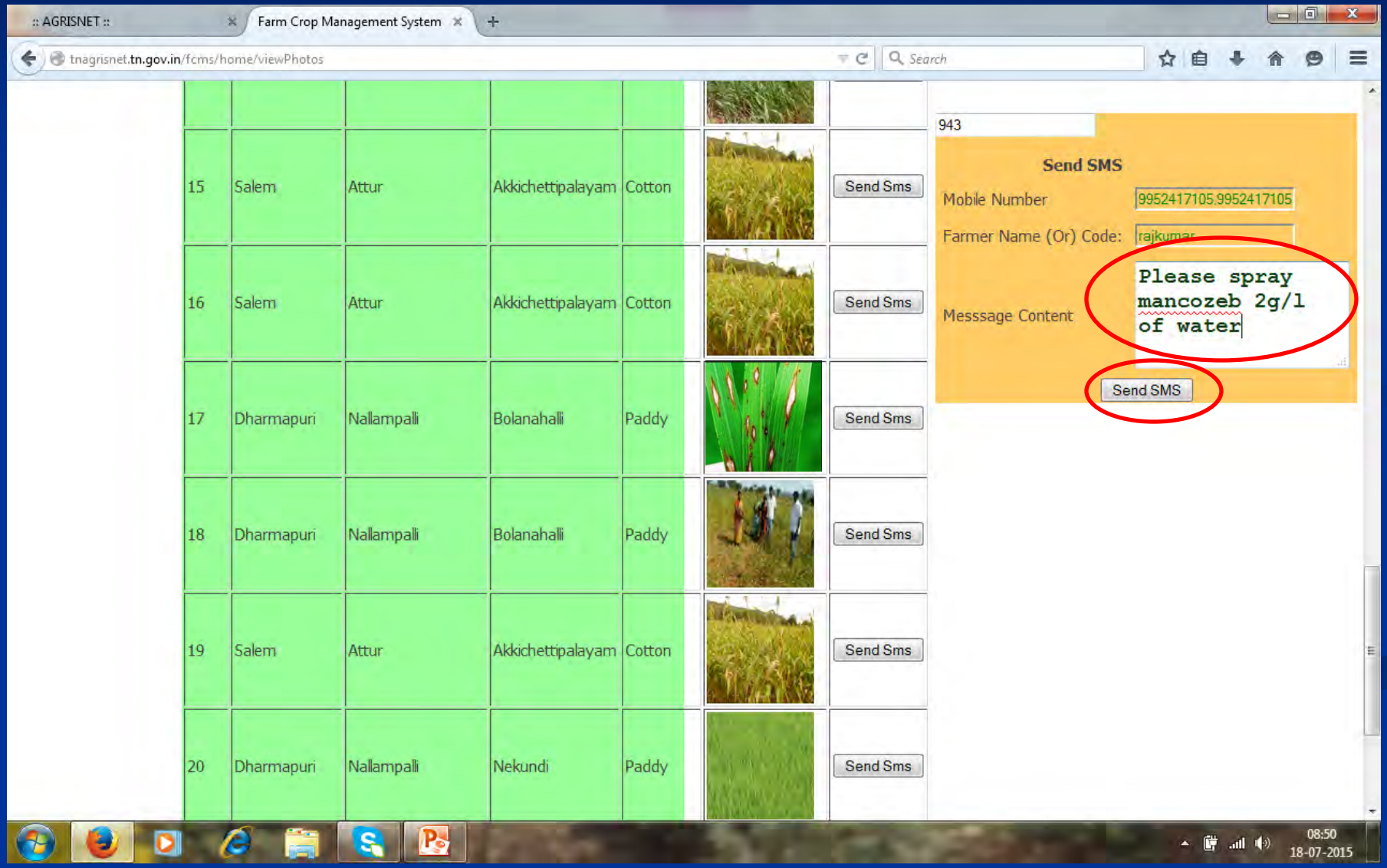
1. Expert at level II- To login by entering username and PW

2. Click e-Velanmai to diagnose the crop images

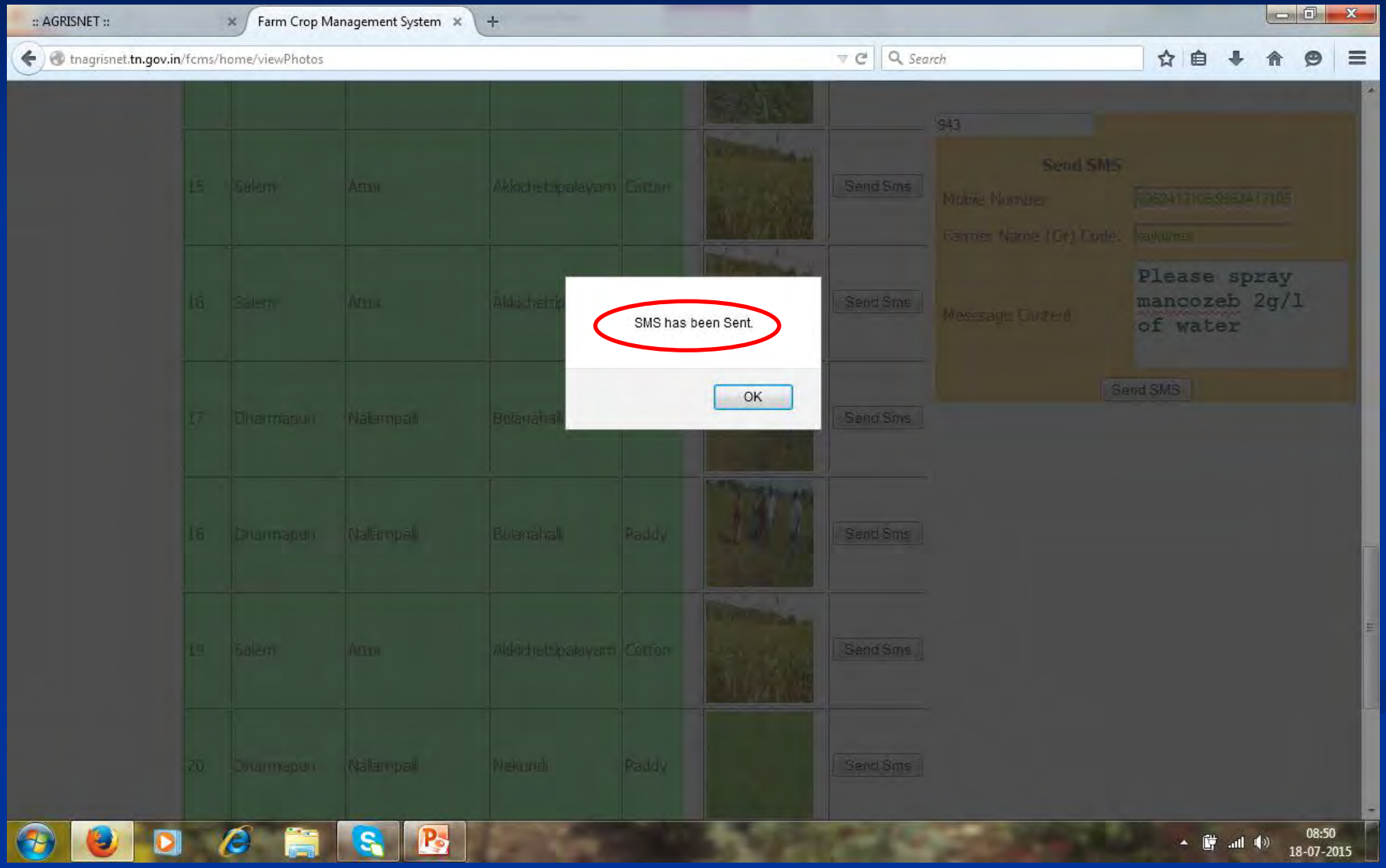
3. Observe the bigger image and take decision to give advice by clicking send SMS



4. Enter advice in the message content And ‘send SMS’

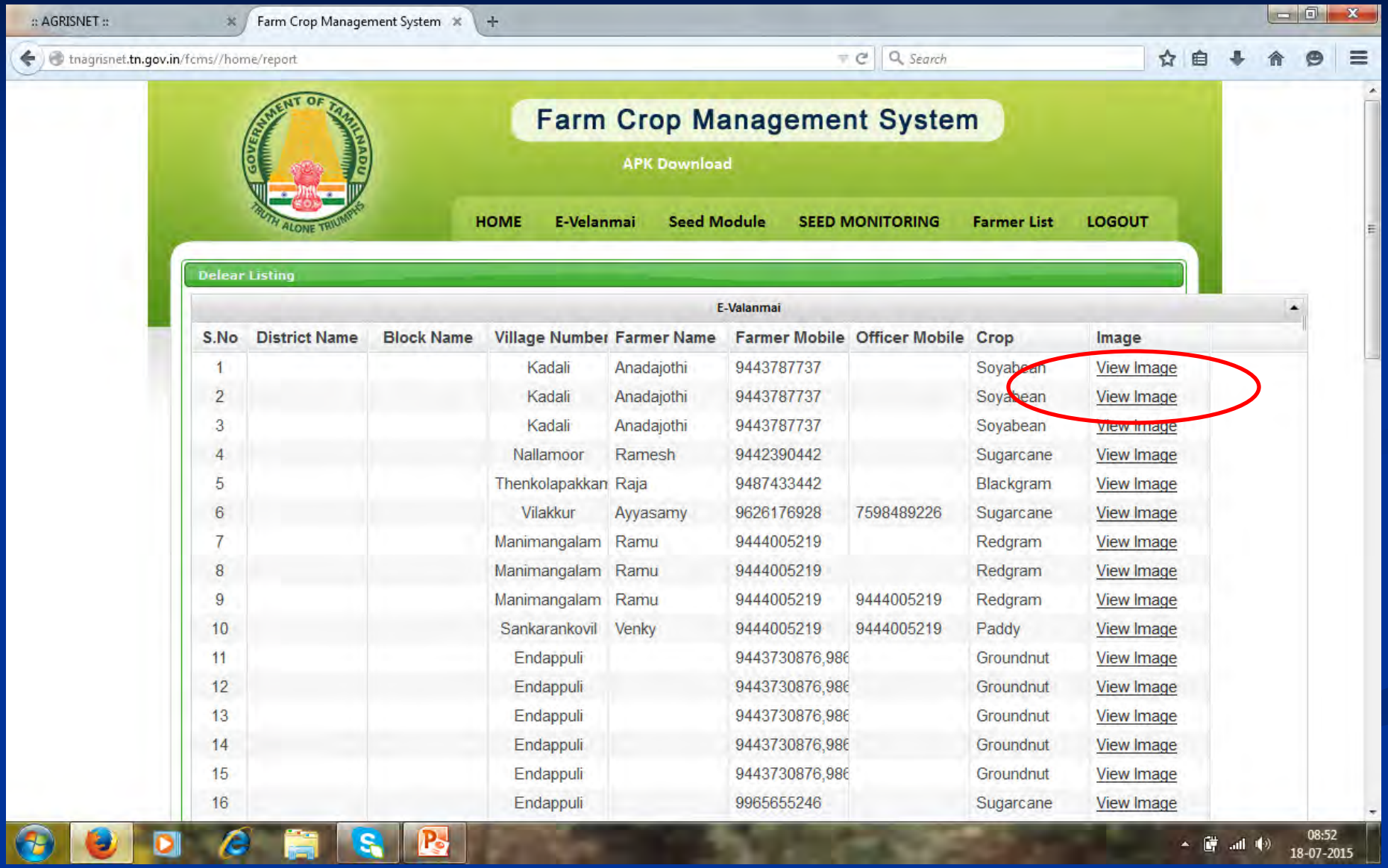


5. Confirmation message will be displayed



6. Download the report on the FCMS home page

7. Report on the advices offered will be generated by clicking the view image



8. ‘Logout’ to end the process at level-II

Conclusion

- e-Velanmai is a feasible and replicable model of extension in India and developing countries.
- Low cost, user friendly and very effective model in terms of disseminating timely and appropriate advice to the farmers.
- Conviction and adoption of technologies by farmers is ensured to achieve enhanced productivity and farm income .