Supplementary

Table S1. Ariyalur DT Accuracy assessment

Class	Cashew	Other crop	Forest	Urban	water	Barren	Row Total	UA %
Cashew	72	0	5	0	0	0	77	94
Other crop (Rice&Maize)	0	54	0	3	0	2	59	92
Forest	5	0	38	2	0	0	45	84
Buildup	0	8	3	17	0	5	33	52
Water bodies	0	1	0	0	20	0	21	95
Barren land	0	3	0	3	2	32	40	80
Col total	77	66	46	25	22	39	275	
PA %	94	82	83	68	91	82		
Overall accuracy 85% kappa index 0.7								

Table S2. Perambalur RF accuracy assessment

Class	Baren	cotton	Forest	Builup	Maize	Rice	water	Row Total	UA%
Baren	25	2	4	3	0	1	0	35	71
cotton	1	65	0	1	0	5	0	72	90
Forest	0	0	33	0	3	0	0	36	91
Buildup&mountain	2	3	0	37	5	0	0	47	08
Maize	0	0	0	3	72	0	0	75	96
Rice	2	2	0	1	0	49	1	55	89
water	0	0	0	0	2	2	30	34	88
Col total	30	72	37	45	82	57	31	354	
PA %	83	90.2	89.1	82	88	86	97		
Overall accuracy 88% kppa index 0.76									

Table S3. Mayiladuthurai RF accuracy assessment

Class	Baren	Horti	Buildup	Rice	water	Agri	Row Total	UA (%)
Barren	21	0	5	0	1	0	27	78
Horti crops	0	34	0	2	0	2	38	89
Buildup	2	0	41	5	0	0	48	85
Rice (Agri)	0	5	3	84	0	5	97	87
Water bodies	0	0	1	0	20	0	21	95
Pulses (Agri)	7	5	0	4	0	24	40	60
Col total	30	44	50	95	21	31	271	
PA %	70	77	82	88	95	77		
Overall accuracy 83% **kappa index 0.66**								

OA = overall accuracy

PA= Producer accuracy

UA =User accuracy

The overall accuracy, which is defined as percentages of correctly classified cases lying along the diagonal, was determined as follows in Equation 1:

$$\textbf{Overall Accuracy} = \frac{\Sigma(\text{Correctly classified classes along diagonal})}{\Sigma(\text{Row Total or Column Total})} \qquad \text{(Eqn. 1)}$$

The errors of omission (producer's accuracy) of each class were computed by dividing the number of samples that were classified correctly by the total number of reference samples as follows in Equation 2:

$$\textbf{Producer's Accuracy} = \frac{\text{Number of correctly classified classes in a column}}{\text{Total number of items verified in that column}} \qquad \text{(Eqn. 2)}$$

The errors of commission (user's accuracy) of each class were computed by dividing the number of correctly classified samples of that class by the total number of samples that were verified as belonging to the class as follows in Equation 3:

$$\textbf{User's Accuracy} = \frac{\text{Number of correctly classified items in a row}}{\text{Total number of items verified in that row}} \qquad \text{(Eqn. 3)}$$