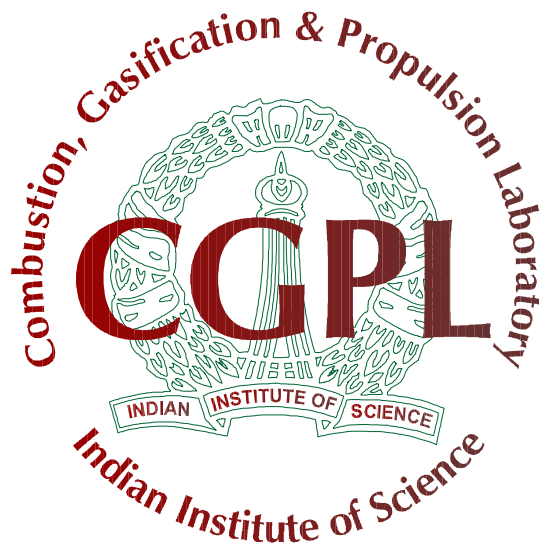


Biomass Mapping for Power Generation for Manipur

Biomass Manual



Combustion, Gasification & Propulsion Laboratory (CGPL)
Department of Aerospace Engineering
Indian Institute of Science
Bangalore 560 012

Biomass Assessment for Manipur Kharif, Yearly and Agro



Biomass Assessment for Manipur

1. Kharif

a. State-level Residue-wise-----	01
b. State-level District-wise-----	02
c. State-level Taluk-wise-----	02
d. District-level Residue-wise-----	03
e. District-level-Taluk-wise-----	06
f. Taluk-level Residue-wise-----	09

2. Rabi

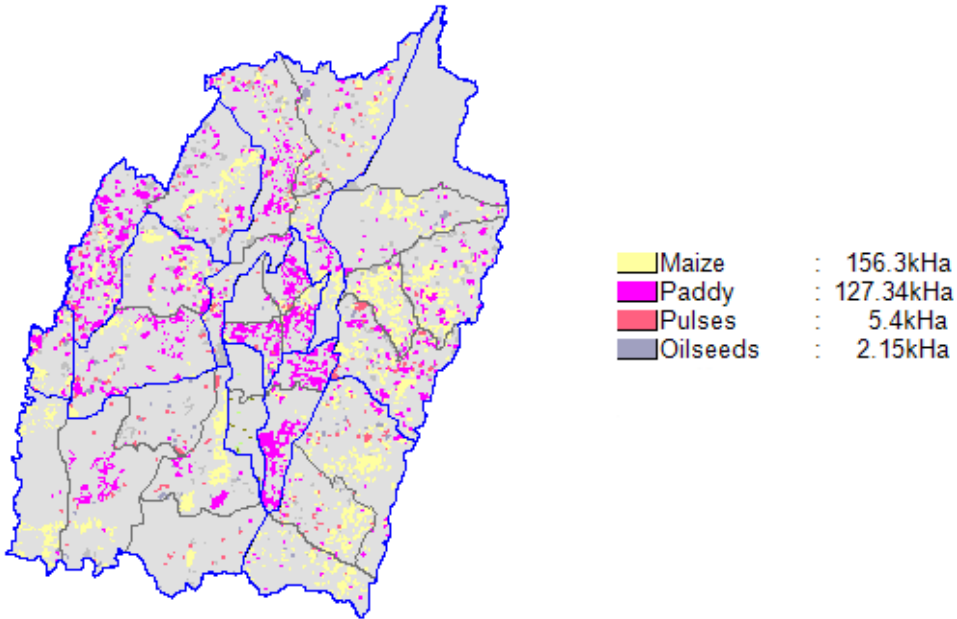
a. State-level Residue-wise-----	17
b. State-level District-wise-----	18
c. State-level Taluk-wise-----	18
d. District-level Residue-wise-----	19
e. District-level-Taluk-wise-----	21
f. Taluk-level Residue-wise-----	23

3. Agro

a. State-level Residue-wise-----	29
b. State-level District-wise-----	29
c. State-level Taluk-wise-----	30
d. District-level Residue-wise-----	31
e. District-level-Taluk-wise-----	34
f. Taluk-level Residue-wise-----	37

Kharif

Manipur-Kharif



State Level Residue Wise

State level Residue-wise Data for Manipur; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	156.3	271.2	542.4	54.2	7.1
Paddy	Straw	127.3	109.1	163.6	16.4	2.0
Paddy	Husk	127.3	109.1	21.8	17.4	1.9
Maize	Cobs	156.3	271.2	135.6	13.6	1.9
Oilseeds	Stalks	2.2	2.2	4.4	0.89	0.11
Pulses	Stalks	5.4	6.1	7.9	0.79	0.10
Others	Others	0.071	0	0.28	0.23	0.032
Total		291.3	388.6	876.0	103.5	13.1

State Level District Wise

State level District-wise Data for Manipur ; Season : Kharif					
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul	43.9	126.9	310.9	32.1	4.2
Churachandpur	51.9	61.6	136.7	16.2	2.0
Imphal	43.8	46.0	93.6	13.0	1.6
Tamenglang	34.0	45.9	102.5	12.3	1.5
Tamenglong	23.2	42.3	100.1	10.8	1.4
Senapati	49.7	32.5	65.0	9.2	1.1
Thoubal	26.3	19.7	33.7	6.1	0.70
Chandel	18.3	13.7	33.4	3.5	0.45
Bishnupur	0.071	0	0.28	0.23	0.032
Total	291.3	388.6	876.0	103.5	13.1

State-level Taluk-wise

State level Taluk-wise Data for Manipur ; Season : Kharif						
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul	Ukhrul Central	12.9	39.4	97.5	9.9	1.3
Tamenglang	Nungba	29.3	38.3	84.9	10.4	1.3
Ukhrul	Phungyar Paisat	11.0	34.8	86.5	8.7	1.1
Ukhrul	Ukhrul South	12.6	32.2	77.0	8.2	1.1
Tamenglong	Tamenglong North	14.7	30.1	74.1	7.5	0.99
Churachandpur	Tipaimukh	20.7	23.4	58.5	5.9	0.77
Churachandpur	Thanlon	15.9	19.9	37.9	5.8	0.69
Ukhrul	Khamjong Chassad	7.4	20.5	49.6	5.2	0.68
Imphal	Imphal East Ii	14.8	16.5	34.8	4.6	0.57
Churachandpur	Churachandpur	14.0	16.5	37.3	4.3	0.54
Senapati	Paomata	18.5	13.3	24.2	3.9	0.46
Senapati	Sadar Hills East	22.4	13.0	28.5	3.5	0.44
Thoubal	Thoubal	15.9	11.9	20.3	3.7	0.42

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tamenglong	Tamenglong West	8.4	12.2	26.0	3.3	0.41
Imphal	Imphal West li	13.6	11.2	19.9	3.4	0.40
Imphal	Jiribam	6.1	10.6	25.8	2.7	0.35
Thoubal	Kakching	10.4	7.8	13.4	2.4	0.28
Imphal	Imphal East I	9.2	7.5	12.8	2.2	0.26
Tamenglang	Tamenglang	4.7	7.5	17.6	2.0	0.25
Chandel	Chandel	8.7	6.5	16.1	1.6	0.21
Chandel	Chakpikarong	5.0	3.8	9.3	0.95	0.12
Senapati	Maomaram	5.3	3.5	7.6	0.98	0.12
Chandel	Tengnoupal	4.7	3.5	8.1	0.90	0.12
Senapati	Sadar Hills West	3.6	2.7	4.7	0.80	0.093
Bishnupur	Moinrag	0.063	0	0.25	0.20	0.028
Churachandpur	Singngat	0.79	1.1	2.0	0.22	0.028
Churachandpur	Churachandpur North	0.47	0.71	1.00	0.12	0.016
Ukhrul	Ukhrul North	0.064	0.15	0.35	0.040	0.0050
Imphal	Imphal West I	0.11	0.10	0.20	0.031	0.0037
Bishnupur	Bishnupur	0.0080	0	0.032	0.026	0.0036
Total		291.3	388.6	876.0	103.5	13.1

District Level Residue Wise

District level Residue-wise Data for Bishnupur; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.071	0	0.28	0.23	0.032
Total		0.071	0	0.28	0.23	0.032

District level Residue-wise Data for Chandel; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.8	12.6	25.2	2.5	0.33
Maize	Cobs	16.8	12.6	6.3	0.63	0.088
Others	Others	1.5	1.1	1.9	0.32	0.038
Total		18.3	13.7	33.4	3.5	0.45

District level Residue-wise Data for Churachandpur; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	36.4	41.1	82.2	8.2	1.1
Paddy	Straw	13.8	17.8	26.7	2.7	0.32
Paddy	Husk	13.8	17.8	3.6	2.8	0.31
Maize	Cobs	36.4	41.1	20.5	2.1	0.29
Others	Others	1.7	2.7	3.7	0.43	0.055
Total		51.9	61.6	136.7	16.2	2.0

District level Residue-wise Data for Imphal; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.1	19.4	38.8	3.9	0.50
Paddy	Straw	33.2	25.9	38.9	3.9	0.47
Paddy	Husk	33.2	25.9	5.2	4.1	0.46
Maize	Cobs	10.1	19.4	9.7	0.97	0.14
Others	Others	0.53	0.63	0.94	0.13	0.016
Total		43.8	46.0	93.6	13.0	1.6

District level Residue-wise Data for Senapati; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	23.9	18.6	27.9	2.8	0.33
Paddy	Husk	23.9	18.6	3.7	3.0	0.33
Maize	Stalks	24.7	12.3	24.7	2.5	0.32
Maize	Cobs	24.7	12.3	6.2	0.62	0.086
Others	Others	1.2	1.6	2.5	0.38	0.047
Total		49.7	32.5	65.0	9.2	1.1

District level Residue-wise Data for Tamenglang; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	14.5	30.7	61.5	6.1	0.80
Paddy	Straw	18.8	14.7	22.0	2.2	0.26
Paddy	Husk	18.8	14.7	2.9	2.3	0.26
Maize	Cobs	14.5	30.7	15.4	1.5	0.22
Others	Others	0.72	0.45	0.67	0.095	0.012
Total		34.0	45.9	102.5	12.3	1.5

District level Residue-wise Data for Tamenglong; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.8	35.7	71.4	7.1	0.93
Maize	Cobs	16.8	35.7	17.8	1.8	0.25
Paddy	Straw	5.5	5.5	8.3	0.83	0.099
Paddy	Husk	5.5	5.5	1.1	0.88	0.097
Others	Others	0.82	1.1	1.5	0.19	0.023
Total		23.2	42.3	100.1	10.8	1.4

District level Residue-wise Data for Thoubal; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	26.0	19.5	29.3	2.9	0.35
Paddy	Husk	26.0	19.5	3.9	3.1	0.34
Others	Others	0.29	0.19	0.48	0.048	0.0063
Total		26.3	19.7	33.7	6.1	0.70

District level Residue-wise Data for Ukhrul; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	36.8	119.1	238.3	23.8	3.1
Maize	Cobs	36.8	119.1	59.6	6.0	0.83
Paddy	Straw	5.4	6.5	9.7	0.97	0.12
Paddy	Husk	5.4	6.5	1.3	1.0	0.11
Others	Others	1.8	1.4	2.1	0.31	0.038
Total		43.9	126.9	310.9	32.1	4.2

District Level Taluk Wise

DistrictLevel Taluk-wise Data for Bishnupur ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Moinrag	0.063	0	0.25	0.20	0.028
Bishnupur	0.0080	0	0.032	0.026	0.0036
Total	0.071	0	0.28	0.23	0.032

DistrictLevel Taluk-wise Data for Chandel ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Chandel	8.7	6.5	16.1	1.6	0.21
Chakpikarong	5.0	3.8	9.3	0.95	0.12
Tengnoupal	4.7	3.5	8.1	0.90	0.12
Total	18.3	13.7	33.4	3.5	0.45

DistrictLevel Taluk-wise Data for Churachandpur ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tipaimukh	20.7	23.4	58.5	5.9	0.77
Thanlon	15.9	19.9	37.9	5.8	0.69
Churachandpur	14.0	16.5	37.3	4.3	0.54
Singngat	0.79	1.1	2.0	0.22	0.028
Churachandpur North	0.47	0.71	1.00	0.12	0.016
Total	51.9	61.6	136.7	16.2	2.04

DistrictLevel Taluk-wise Data for Imphal ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Imphal East Ii	14.8	16.5	34.8	4.6	0.57
Imphal West Ii	13.6	11.2	19.9	3.4	0.40
Jiribam	6.1	10.6	25.8	2.7	0.35
Imphal East I	9.2	7.5	12.8	2.2	0.26
Imphal West I	0.11	0.10	0.20	0.031	0.0037
Total	43.8	46.0	93.6	13.0	1.58

DistrictLevel Taluk-wise Data for Senapati ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paomata	18.5	13.3	24.2	3.9	0.46
Sadar Hills East	22.4	13.0	28.5	3.5	0.44
Maomaram	5.3	3.5	7.6	0.98	0.12
Sadar Hills West	3.6	2.7	4.7	0.80	0.093
Total	49.7	32.5	65.0	9.2	1.12

DistrictLevel Taluk-wise Data for Tamenglang ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Nungba	29.3	38.3	84.9	10.4	1.3
Tamenglang	4.7	7.5	17.6	2.0	0.25
Total	34.0	45.9	102.5	12.3	1.55

DistrictLevel Taluk-wise Data for Tamenglong ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tamenglong North	14.7	30.1	74.1	7.5	0.99
Tamenglong West	8.4	12.2	26.0	3.3	0.41
Total	23.2	42.3	100.1	10.8	1.40

DistrictLevel Taluk-wise Data for Thoubal ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Thoubal	15.9	11.9	20.3	3.7	0.42
Kakching	10.4	7.8	13.4	2.4	0.28
Total	26.3	19.7	33.7	6.1	0.70

DistrictLevel Taluk-wise Data for Ukhrul ; Season : Kharif					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul Central	12.9	39.4	97.5	9.9	1.3
Phungyar Paisat	11.0	34.8	86.5	8.7	1.1
Ukhrul South	12.6	32.2	77.0	8.2	1.1
Khamjong Chassad	7.4	20.5	49.6	5.2	0.68
Ukhrul North	0.064	0.15	0.35	0.040	0.0050
Total	43.9	126.9	310.9	32.1	4.20

Taluk Level Residue Wise

Taluk level Residue-wise Data for Chakpikarong ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	4.8	3.6	7.2	0.72	0.094
Others	Others	0.17	0.14	2.1	0.23	0.031
Total		5.0	3.8	9.3	0.95	0.12

Taluk level Residue-wise Data for Chandel ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	8.4	6.3	12.6	1.3	0.16
Others	Others	0.29	0.19	3.5	0.37	0.050
Total		8.7	6.5	16.1	1.6	0.21

Taluk level Residue-wise Data for Tengnoupal ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	3.6	2.7	5.4	0.54	0.070
Others	Others	1.1	0.77	2.7	0.36	0.046
Total		4.7	3.5	8.1	0.90	0.12

Taluk level Residue-wise Data for Churachandpur ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.5	11.9	23.8	2.4	0.31
Maize	Cobs	10.5	11.9	6.0	0.60	0.083
Paddy	Straw	2.8	3.6	5.4	0.54	0.065
Paddy	Husk	2.8	3.6	0.72	0.58	0.063
Others	Others	0.63	1.0	1.4	0.16	0.020
Total		14.0	16.5	37.3	4.3	0.54

Taluk level Residue-wise Data for Churachandpur North ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.47	0.71	1.00	0.12	0.016
Total		0.47	0.71	1.00	0.12	0.016

Taluk level Residue-wise Data for Singngat ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.79	1.1	2.0	0.22	0.028
Total		0.79	1.1	2.0	0.22	0.028

Taluk level Residue-wise Data for Thanlon ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	10.9	14.0	21.1	2.1	0.25
Paddy	Husk	10.9	14.0	2.8	2.2	0.25
Maize	Stalks	4.7	5.4	10.7	1.1	0.14
Others	Others	0.29	0.45	3.3	0.34	0.047
Total		15.9	19.9	37.9	5.8	0.69

Taluk level Residue-wise Data for Tipaimukh ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	20.6	23.3	46.6	4.7	0.61
Maize	Cobs	20.6	23.3	11.6	1.2	0.16
Others	Others	0.11	0.13	0.21	0.034	0.0040
Total		20.7	23.4	58.5	5.9	0.77

Taluk level Residue-wise Data for Imphal East I ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	8.8	6.9	10.3	1.0	0.12
Paddy	Husk	8.8	6.9	1.4	1.1	0.12
Others	Others	0.40	0.60	1.2	0.12	0.016
Total		9.2	7.5	12.8	2.2	0.26

Taluk level Residue-wise Data for Imphal East II ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	4.4	8.4	16.8	1.7	0.22
Paddy	Straw	10.4	8.1	12.2	1.2	0.15
Paddy	Husk	10.4	8.1	1.6	1.3	0.14
Maize	Cobs	4.4	8.4	4.2	0.42	0.059
Others	Others	0.018	0.022	0.030	0.0035	0.00044
Total		14.8	16.5	34.8	4.6	0.57

Taluk level Residue-wise Data for Imphal West I ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.11	0.10	0.20	0.031	0.0037
Total		0.11	0.10	0.20	0.031	0.0037

Taluk level Residue-wise Data for Imphal West II ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	13.0	10.2	15.3	1.5	0.18
Paddy	Husk	13.0	10.2	2.0	1.6	0.18
Others	Others	0.59	1.1	2.6	0.27	0.035
Total		13.6	11.2	19.9	3.4	0.40

Taluk level Residue-wise Data for Jiribam ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	5.0	9.7	19.4	1.9	0.25
Maize	Cobs	5.0	9.7	4.9	0.49	0.068
Others	Others	1.1	0.91	1.5	0.27	0.031
Total		6.1	10.6	25.8	2.7	0.35

Taluk level Residue-wise Data for Maomaram ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	5.3	3.5	7.6	0.98	0.12
Total		5.3	3.5	7.6	0.98	0.12

Taluk level Residue-wise Data for Paomata ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	13.8	10.8	16.2	1.6	0.19
Paddy	Husk	13.8	10.8	2.2	1.7	0.19
Maize	Stalks	4.2	2.1	4.2	0.42	0.055
Others	Others	0.37	0.38	1.6	0.16	0.021
Total		18.5	13.3	24.2	3.9	0.46

Taluk level Residue-wise Data for Sadar Hills East ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.1	8.0	16.1	1.6	0.21
Paddy	Straw	6.2	4.9	7.3	0.73	0.087
Paddy	Husk	6.2	4.9	0.97	0.78	0.086
Maize	Cobs	16.1	8.0	4.0	0.40	0.056
Others	Others	0.056	0.057	0.074	0.0074	0.00096
Total		22.4	13.0	28.5	3.5	0.44

Taluk level Residue-wise Data for Sadar Hills West ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	3.6	2.7	4.7	0.80	0.093
Total		3.6	2.7	4.7	0.80	0.093

Taluk level Residue-wise Data for Nungba ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	11.6	24.7	49.3	4.9	0.64
Paddy	Straw	17.1	13.3	20.0	2.0	0.24
Paddy	Husk	17.1	13.3	2.7	2.1	0.23
Maize	Cobs	11.6	24.7	12.3	1.2	0.17
Others	Others	0.59	0.37	0.56	0.080	0.0099
Total		29.3	38.3	84.9	10.4	1.3

Taluk level Residue-wise Data for Tamenglang ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	2.9	6.1	12.1	1.2	0.16
Others	Others	1.9	1.4	5.5	0.74	0.093
Total		4.7	7.5	17.6	2.0	0.25

Taluk level Residue-wise Data for Tamenglong North ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	13.6	28.8	57.7	5.8	0.75
Maize	Cobs	13.6	28.8	14.4	1.4	0.20
Others	Others	1.1	1.3	2.0	0.33	0.038
Total		14.7	30.1	74.1	7.5	0.99

Taluk level Residue-wise Data for Tamenglong West ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	3.2	6.8	13.7	1.4	0.18
Paddy	Straw	4.6	4.6	6.9	0.69	0.083
Paddy	Husk	4.6	4.6	0.93	0.74	0.081
Others	Others	0.56	0.69	4.4	0.47	0.064
Total		8.4	12.2	26.0	3.3	0.41

Taluk level Residue-wise Data for Kakching ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	10.1	7.6	11.4	1.1	0.14
Paddy	Husk	10.1	7.6	1.5	1.2	0.13
Others	Others	0.28	0.19	0.48	0.048	0.0063
Total		10.4	7.8	13.4	2.4	0.28

Taluk level Residue-wise Data for Thoubal ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	15.9	11.9	17.9	1.8	0.21
Paddy	Husk	15.9	11.9	2.4	1.9	0.21
Others	Others	0.00099	0.00066	0.0017	0.00017	2.19E-05
Total		15.9	11.9	20.3	3.7	0.42

Taluk level Residue-wise Data for Khamjong Chassad ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	5.7	18.5	37.0	3.7	0.48
Maize	Cobs	5.7	18.5	9.2	0.92	0.13
Others	Others	1.7	2.0	3.3	0.60	0.069
Total		7.4	20.5	49.6	5.2	0.68

Taluk level Residue-wise Data for Phungyar Paisat ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.6	34.3	68.5	6.9	0.89
Maize	Cobs	10.6	34.3	17.1	1.7	0.24
Others	Others	0.42	0.51	0.86	0.16	0.018
Total		11.0	34.8	86.5	8.7	1.1

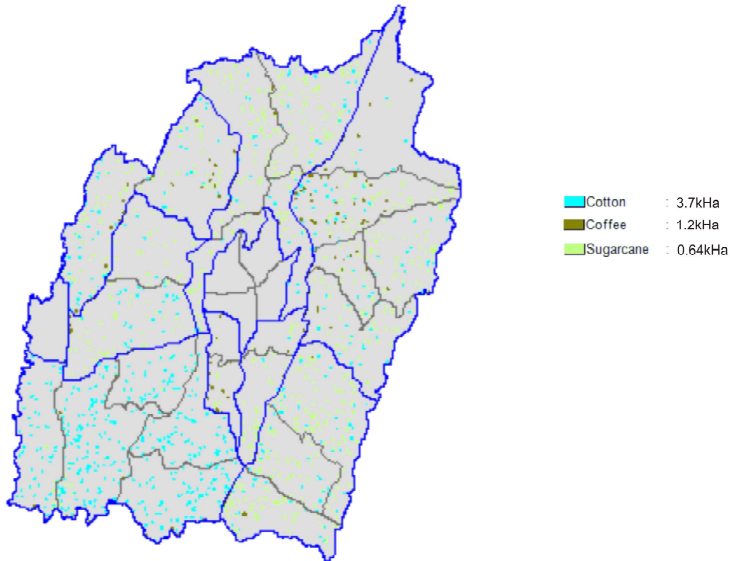
Taluk level Residue-wise Data for Ukhrul Central ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	11.8	38.1	76.2	7.6	0.99
Maize	Cobs	11.8	38.1	19.1	1.9	0.27
Others	Others	1.1	1.3	2.2	0.42	0.049
Total		12.9	39.4	97.5	9.9	1.3

Taluk level Residue-wise Data for Ukhrul North ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.064	0.15	0.35	0.040	0.0050
Total		0.064	0.15	0.35	0.040	0.0050

Taluk level Residue-wise Data for Ukhrul South ; Season : Kharif						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	8.7	28.2	56.3	5.6	0.73
Maize	Cobs	8.7	28.2	14.1	1.4	0.20
Paddy	Straw	2.5	3.0	4.5	0.45	0.054
Paddy	Husk	2.5	3.0	0.60	0.48	0.053
Others	Others	1.4	1.0	1.5	0.19	0.023
Total		12.6	32.2	77.0	8.2	1.1

Yearly

Manipur-Yearly



State level Residue wise

State level Residue-wise Data for Manipur; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	3.7	4.3	13.9	11.1	1.6
Coffee	Pruning & Wastes	1.2	0.029	4.8	3.9	0.54
Cotton	Bollshell	3.7	4.3	4.7	0.47	0.066
Cotton	Husk	3.7	4.3	4.7	0.47	0.066
Others	Others	5.0	4.4	0.23	0.023	0.0032
Total		9.8	8.7	28.4	16.0	2.2

State level District wise

State level District-wise Data for Manipur ; Season : Yearly					
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Churachandpur	2.6	2.8	15.3	8.1	1.1
Ukhrul	1.8	0.93	3.7	2.5	0.35
Chandel	1.6	0.90	2.2	1.4	0.20
Tamenglong	0.89	0.93	2.5	1.3	0.19
Senapati	1.5	1.5	2.2	1.2	0.17
Tamenglang	0.84	1.2	2.0	0.97	0.14
Bishnupur	0.14	0.29	0.31	0.24	0.033
Thoubal	0.34	0.19	0.28	0.20	0.028
Total	9.8	8.7	28.4	16.0	2.2

State level Taluk wise

State level Taluk-wise Data for Manipur ; Season : Yearly						
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Churachandpur	Thanlon	0.88	0.89	5.0	2.7	0.38
Churachandpur	Singnat	0.57	0.61	3.4	1.8	0.25
Churachandpur	Churachandpur	0.46	0.55	3.0	1.5	0.21
Ukhrul	Ukhrul Central	0.78	0.30	2.0	1.4	0.20
Churachandpur	Tipaimukh	0.45	0.46	2.3	1.2	0.17
Tamenglang	Nungba	0.60	0.85	1.8	0.89	0.12
Tamenglong	Tamenglong West	0.54	0.59	1.7	0.85	0.12
Churachandpur	Churachandpur North	0.25	0.29	1.6	0.83	0.12
Chandel	Tengnoupal	0.77	0.41	1.1	0.71	0.099
Senapati	Paomata	0.52	0.42	0.73	0.49	0.069
Tamenglong	Tamenglong North	0.35	0.34	0.87	0.48	0.067
Chandel	Chakpikarong	0.55	0.29	0.71	0.46	0.065
Ukhrul	Ukhrul South	0.38	0.22	0.70	0.44	0.062
Senapati	Maomaram	0.62	0.64	0.72	0.36	0.050
Senapati	Sadar Hills East	0.22	0.22	0.57	0.31	0.043
Chandel	Chandel	0.33	0.20	0.43	0.26	0.036
Ukhrul	Phungyar Paisat	0.21	0.12	0.37	0.23	0.033

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul	Khamjong Chassad	0.37	0.23	0.39	0.23	0.033
Bishnupur	Moinrag	0.11	0.25	0.24	0.18	0.025
Ukhrul	Ukhrul North	0.098	0.052	0.27	0.18	0.025
Thoubal	Thoubal	0.087	0.037	0.15	0.11	0.016
Thoubal	Kakching	0.25	0.15	0.13	0.085	0.012
Tamenglang	Tamenglang	0.24	0.34	0.16	0.074	0.010
Senapati	Sadar Hills West	0.18	0.19	0.14	0.067	0.0094
Bishnupur	Bishnupur	0.025	0.037	0.070	0.055	0.0076
Total		9.8	8.7	28.4	16.0	2.2

District Level Residue Wise

District level Residue-wise Data for Bishnupur; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.14	0.29	0.31	0.24	0.033
Total		0.14	0.29	0.31	0.24	0.033

District level Residue-wise Data for Chandel; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.33	0.21	1.3	1.0	0.14
Coffee	Pruning & Wastes	0.12	0.0028	0.47	0.38	0.053
Others	Others	1.2	0.68	0.50	0.050	0.0070
Total		1.6	0.90	2.2	1.4	0.20

District level Residue-wise Data for Churachandpur; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	2.3	2.7	8.6	6.8	0.96
Coffee	Pruning & Wastes	0.19	0.0046	0.76	0.61	0.085
Others	Others	0.17	0.087	6.0	0.60	0.083
Total		2.6	2.8	15.3	8.1	1.1

District level Residue-wise Data for Senapati; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.25	0.30	0.95	0.76	0.11
Coffee	Pruning & Wastes	0.12	0.0030	0.49	0.39	0.055
Others	Others	1.2	1.2	0.72	0.072	0.010
Total		1.5	1.5	2.2	1.2	0.17

District level Residue-wise Data for Tamenglang; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.19	0.38	0.74	0.59	0.082
Others	Others	0.65	0.81	1.2	0.38	0.053
Total		0.84	1.2	2.0	0.97	0.14

District level Residue-wise Data for Tamenglong; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.25	0.43	0.96	0.77	0.11
Coffee	Pruning & Wastes	0.15	0.0035	0.58	0.47	0.065
Others	Others	0.49	0.49	0.98	0.098	0.014
Total		0.89	0.93	2.5	1.3	0.19

District level Residue-wise Data for Thoubal; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.34	0.19	0.28	0.20	0.028
Total		0.34	0.19	0.28	0.20	0.028

District level Residue-wise Data for Ukhrul; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Coffee	Pruning & Wastes	0.43	0.010	1.7	1.4	0.19
Cotton	Stalks	0.35	0.27	1.3	1.1	0.15
Others	Others	1.0	0.66	0.62	0.062	0.0087
Total		1.8	0.93	3.7	2.5	0.35

District-level Taluk wise

DistrictLevel Taluk-wise Data for Bishnupur ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Moinrag	0.11	0.25	0.24	0.18	0.025
Bishnupur	0.025	0.037	0.070	0.055	0.0076
Total	0.14	0.29	0.31	0.24	0.033

DistrictLevel Taluk-wise Data for Chandel ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tengnoupal	0.77	0.41	1.1	0.71	0.099
Chakpikarong	0.55	0.29	0.71	0.46	0.065
Chandel	0.33	0.20	0.43	0.26	0.036
Total	1.6	0.90	2.2	1.4	0.20

DistrictLevel Taluk-wise Data for Churachandpur ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Thanlon	0.88	0.89	5.0	2.7	0.38
Singngat	0.57	0.61	3.4	1.8	0.25
Churachandpur	0.46	0.55	3.0	1.5	0.21
Tipaimukh	0.45	0.46	2.3	1.2	0.17
Churachandpur North	0.25	0.29	1.6	0.83	0.12
Total	2.6	2.8	15.3	8.1	1.13

DistrictLevel Taluk-wise Data for Senapati ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paomata	0.52	0.42	0.73	0.49	0.069
Maomaram	0.62	0.64	0.72	0.36	0.050
Sadar Hills East	0.22	0.22	0.57	0.31	0.043
Sadar Hills West	0.18	0.19	0.14	0.067	0.0094
Total	1.5	1.5	2.2	1.2	0.17

DistrictLevel Taluk-wise Data for Tamenglang ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Nungba	0.60	0.85	1.8	0.89	0.12
Tamenglang	0.24	0.34	0.16	0.074	0.010
Total	0.84	1.2	2.0	0.97	0.14

DistrictLevel Taluk-wise Data for Tamenglong ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tamenglong West	0.54	0.59	1.7	0.85	0.12
Tamenglong North	0.35	0.34	0.87	0.48	0.067
Total	0.89	0.93	2.5	1.3	0.19

DistrictLevel Taluk-wise Data for Thoubal ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Thoubal	0.087	0.037	0.15	0.11	0.016
Kakching	0.25	0.15	0.13	0.085	0.012
Total	0.34	0.19	0.28	0.20	0.028

DistrictLevel Taluk-wise Data for Ukhrul ; Season : Yearly					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul Central	0.78	0.30	2.0	1.4	0.20
Ukhrul South	0.38	0.22	0.70	0.44	0.062
Phungyar Paisat	0.21	0.12	0.37	0.23	0.033
Khamjong Chassad	0.37	0.23	0.39	0.23	0.033
Ukhrul North	0.098	0.052	0.27	0.18	0.025
Total	1.8	0.93	3.7	2.5	0.35

Taluk Level Residue Wise

Taluk level Residue-wise Data for Bishnupur ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.025	0.037	0.070	0.055	0.0076
Total		0.025	0.037	0.070	0.055	0.0076

Taluk level Residue-wise Data for Moinrag ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.11	0.25	0.24	0.18	0.025
Total		0.11	0.25	0.24	0.18	0.025

Taluk level Residue-wise Data for Chakpikarong ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.55	0.29	0.71	0.46	0.065
Total		0.55	0.29	0.71	0.46	0.065

Taluk level Residue-wise Data for Chandel ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.33	0.20	0.43	0.26	0.036
Total		0.33	0.20	0.43	0.26	0.036

Taluk level Residue-wise Data for Tengnoupal ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.16	0.099	0.59	0.47	0.066
Others	Others	0.61	0.31	0.50	0.24	0.033
Total		0.77	0.41	1.1	0.71	0.099

Taluk level Residue-wise Data for Churachandpur ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.46	0.55	1.8	1.4	0.20
Others	Others	0.0016	3.90E-05	1.2	0.13	0.018
Total		0.46	0.55	3.0	1.5	0.21

Taluk level Residue-wise Data for Churachandpur North ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.24	0.29	0.91	0.72	0.10
Others	Others	0.017	0.0023	0.68	0.10	0.014
Total		0.25	0.29	1.6	0.83	0.12

Taluk level Residue-wise Data for Singnagat ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.50	0.59	1.9	1.5	0.21
Others	Others	0.075	0.014	1.5	0.29	0.040
Total		0.57	0.61	3.4	1.8	0.25

Taluk level Residue-wise Data for Thanlon ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.72	0.86	2.7	2.2	0.30
Others	Others	0.16	0.030	2.3	0.52	0.073
Total		0.88	0.89	5.0	2.7	0.38

Taluk level Residue-wise Data for Tipaimukh ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.34	0.41	1.3	1.0	0.15
Others	Others	0.11	0.045	1.00	0.16	0.023
Total		0.45	0.46	2.3	1.2	0.17

Taluk level Residue-wise Data for Maomaram ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.62	0.64	0.72	0.36	0.050
Total		0.62	0.64	0.72	0.36	0.050

Taluk level Residue-wise Data for Paomata ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.52	0.42	0.73	0.49	0.069
Total		0.52	0.42	0.73	0.49	0.069

Taluk level Residue-wise Data for Sadar Hills East ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.22	0.22	0.57	0.31	0.043
Total		0.22	0.22	0.57	0.31	0.043

Taluk level Residue-wise Data for Sadar Hills West ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.18	0.19	0.14	0.067	0.0094
Total		0.18	0.19	0.14	0.067	0.0094

Taluk level Residue-wise Data for Nungba ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.18	0.35	0.68	0.54	0.076
Others	Others	0.43	0.50	1.1	0.35	0.049
Total		0.60	0.85	1.8	0.89	0.12

Taluk level Residue-wise Data for Tamenglang ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.24	0.34	0.16	0.074	0.010
Total		0.24	0.34	0.16	0.074	0.010

**Taluk level Residue-wise Data for Tamenglong North ; Season :
Yearly**

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.35	0.34	0.87	0.48	0.067
Total		0.35	0.34	0.87	0.48	0.067

Taluk level Residue-wise Data for Tamenglong West ; Season : Yearly

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.17	0.30	0.66	0.53	0.074
Others	Others	0.37	0.29	0.99	0.32	0.045
Total		0.54	0.59	1.7	0.85	0.12

Taluk level Residue-wise Data for Kakching ; Season : Yearly

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.25	0.15	0.13	0.085	0.012
Total		0.25	0.15	0.13	0.085	0.012

Taluk level Residue-wise Data for Thoubal ; Season : Yearly

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.087	0.037	0.15	0.11	0.016
Total		0.087	0.037	0.15	0.11	0.016

**Taluk level Residue-wise Data for Khamjong Chassad ; Season :
Yearly**

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.37	0.23	0.39	0.23	0.033
Total		0.37	0.23	0.39	0.23	0.033

Taluk level Residue-wise Data for Phungyar Paisat ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.21	0.12	0.37	0.23	0.033
Total		0.21	0.12	0.37	0.23	0.033

Taluk level Residue-wise Data for Ukhrul Central ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Coffee	Pruning & Wastes	0.33	0.0079	1.3	1.1	0.15
Others	Others	0.45	0.29	0.63	0.36	0.051
Total		0.78	0.30	2.0	1.4	0.20

Taluk level Residue-wise Data for Ukhrul North ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.098	0.052	0.27	0.18	0.025
Total		0.098	0.052	0.27	0.18	0.025

Taluk level Residue-wise Data for Ukhrul South ; Season : Yearly						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.38	0.22	0.70	0.44	0.062
Total		0.38	0.22	0.70	0.44	0.062

Agro

State Level Residue Wise

State level Residue-wise Data for Manipur; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	156.3	271.2	542.4	54.2	7.1
Paddy	Straw	127.3	109.1	163.6	16.4	2.0
Paddy	Husk	127.3	109.1	21.8	17.4	1.9
Maize	Cobs	156.3	271.2	135.6	13.6	1.9
Cotton	Stalks	3.7	4.3	13.9	11.1	1.6
Coffee	Pruning & Wastes	1.3	0.029	5.1	4.1	0.57
Oilseeds	Stalks	2.2	2.2	4.4	0.89	0.11
Pulses	Stalks	5.4	6.1	7.9	0.79	0.10
Cotton	Bollshell	3.7	4.3	4.7	0.47	0.066
Cotton	Husk	3.7	4.3	4.7	0.47	0.066
Others	Others	5.0	4.4	0.23	0.023	0.0032
Total		301.1	397.3	904.4	119.5	15.3

State Level District Wise

State level District-wise Data for Manipur ; Biomass Class : Agro						
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Ukhrul	45.8	127.9	314.6	34.6	4.6	
Churachandpur	54.5	64.4	151.9	24.3	3.2	
Tamenglang	34.9	47.0	104.4	13.3	1.7	
Tamenglong	24.0	43.2	102.6	12.1	1.6	
Imphal	43.8	46.0	93.6	13.0	1.6	
Senapati	51.3	34.0	67.1	10.5	1.3	
Thoubal	26.7	19.9	34.0	6.3	0.73	
Chandel	20.0	14.6	35.6	4.9	0.66	
Bishnupur	0.21	0.29	0.59	0.46	0.065	
Total		301.1	397.3	904.4	119.5	15.3

State Level Taluk Wise

State level Taluk-wise Data for Manipur ; Biomass Class : Agro						
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul	Ukhrul Central	13.6	39.7	99.5	11.4	1.5
Tamenglang	Nungba	29.9	39.2	86.7	11.3	1.4
Ukhrul	Phungyar Paisat	11.2	34.9	86.9	9.0	1.2
Ukhrul	Ukhrul South	13.0	32.4	77.7	8.6	1.1
Churachandpur	Thanlon	16.8	20.7	42.9	8.5	1.1
Tamenglong	Tamenglong North	15.1	30.4	75.0	8.0	1.1
Churachandpur	Tipaimukh	21.2	23.9	60.8	7.1	0.94
Churachandpur	Churachandpur	14.4	17.1	40.3	5.8	0.76
Ukhrul	Khamjong Chassad	7.8	20.7	50.0	5.5	0.71
Imphal	Imphal East Ii	14.8	16.5	34.8	4.6	0.57
Senapati	Paomata	19.0	13.7	24.9	4.4	0.53
Tamenglong	Tamenglong West	9.0	12.8	27.6	4.1	0.53
Senapati	Sadar Hills East	22.6	13.2	29.0	3.8	0.48
Thoubal	Thoubal	16.0	12.0	20.4	3.8	0.44
Imphal	Imphal West Ii	13.6	11.2	19.9	3.4	0.40
Imphal	Jiribam	6.1	10.6	25.8	2.7	0.35
Thoubal	Kakching	10.7	7.9	13.5	2.5	0.29
Churachandpur	Singngat	1.4	1.7	5.4	2.0	0.28
Tamenglang	Tamenglang	5.0	7.9	17.8	2.0	0.26
Imphal	Imphal East I	9.2	7.5	12.8	2.2	0.26
Chandel	Chandel	9.0	6.7	16.5	1.9	0.25
Chandel	Tengnoupal	5.4	3.9	9.2	1.6	0.22
Chandel	Chakpikarong	5.5	4.0	10.0	1.4	0.19
Senapati	Maomaram	5.9	4.2	8.3	1.3	0.17
Churachandpur	Churachandpur North	0.72	0.99	2.6	0.95	0.13
Senapati	Sadar Hills West	3.8	2.9	4.9	0.87	0.10
Bishnupur	Moinrag	0.18	0.25	0.49	0.38	0.054
Ukhrul	Ukhrul North	0.16	0.20	0.62	0.22	0.030
Bishnupur	Bishnupur	0.033	0.037	0.10	0.080	0.011
Imphal	Imphal West I	0.11	0.10	0.20	0.031	0.0037
Total		301.1	397.3	904.4	119.5	15.3

District level Residue wise

District level Residue-wise Data for Bishnupur; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Coffee	Pruning & Wastes	0.14	0.0018	0.58	0.46	0.065
Others	Others	0.064	0.29	0.015	0.0015	0.00021
Total		0.21	0.29	0.59	0.46	0.065

District level Residue-wise Data for Chandel; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.8	12.6	25.2	2.5	0.33
Cotton	Stalks	0.33	0.21	1.3	1.0	0.14
Maize	Cobs	16.8	12.6	6.3	0.63	0.088
Coffee	Pruning & Wastes	0.12	0.0028	0.47	0.38	0.053
Others	Others	2.7	1.8	2.4	0.37	0.045
Total		20.0	14.6	35.6	4.9	0.66

District level Residue-wise Data for Churachandpur; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	36.4	41.1	82.2	8.2	1.1
Cotton	Stalks	2.3	2.7	8.6	6.8	0.96
Paddy	Straw	13.8	17.8	26.7	2.7	0.32
Paddy	Husk	13.8	17.8	3.6	2.8	0.31
Maize	Cobs	36.4	41.1	20.5	2.1	0.29
Others	Others	1.9	2.8	9.7	1.0	0.14
Coffee	Pruning & Wastes	0.19	0.0046	0.76	0.61	0.085
Total		54.5	64.4	151.9	24.3	3.2

District level Residue-wise Data for Imphal; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.1	19.4	38.8	3.9	0.50
Paddy	Straw	33.2	25.9	38.9	3.9	0.47
Paddy	Husk	33.2	25.9	5.2	4.1	0.46
Maize	Cobs	10.1	19.4	9.7	0.97	0.14
Others	Others	0.53	0.63	0.94	0.13	0.016
Total		43.8	46.0	93.6	13.0	1.6

District level Residue-wise Data for Senapati; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	23.9	18.6	27.9	2.8	0.33
Paddy	Husk	23.9	18.6	3.7	3.0	0.33
Maize	Stalks	24.7	12.3	24.7	2.5	0.32
Cotton	Stalks	0.25	0.30	0.95	0.76	0.11
Maize	Cobs	24.7	12.3	6.2	0.62	0.086
Others	Others	2.4	2.7	3.2	0.45	0.057
Coffee	Pruning & Wastes	0.12	0.0030	0.49	0.39	0.055
Total		51.3	34.0	67.1	10.5	1.3

District level Residue-wise Data for Tamenglang; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	14.5	30.7	61.5	6.1	0.80
Paddy	Straw	18.8	14.7	22.0	2.2	0.26
Paddy	Husk	18.8	14.7	2.9	2.3	0.26
Maize	Cobs	14.5	30.7	15.4	1.5	0.22
Cotton	Stalks	0.19	0.38	0.74	0.59	0.082
Others	Others	1.4	1.3	1.9	0.47	0.065
Total		34.9	47.0	104.4	13.3	1.7

District level Residue-wise Data for Tamenglong; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.8	35.7	71.4	7.1	0.93
Maize	Cobs	16.8	35.7	17.8	1.8	0.25
Cotton	Stalks	0.25	0.43	0.96	0.77	0.11
Paddy	Straw	5.5	5.5	8.3	0.83	0.099
Paddy	Husk	5.5	5.5	1.1	0.88	0.097
Coffee	Pruning & Wastes	0.15	0.0035	0.58	0.47	0.065
Others	Others	1.3	1.6	2.5	0.28	0.037
Total		24.0	43.2	102.6	12.1	1.6

District level Residue-wise Data for Thoubal; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	26.0	19.5	29.3	2.9	0.35
Paddy	Husk	26.0	19.5	3.9	3.1	0.34
Others	Others	0.62	0.38	0.76	0.24	0.034
Total		26.7	19.9	34.0	6.3	0.73

District level Residue-wise Data for Ukhrul; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	36.8	119.1	238.3	23.8	3.1
Maize	Cobs	36.8	119.1	59.6	6.0	0.83
Coffee	Pruning & Wastes	0.43	0.010	1.7	1.4	0.19
Cotton	Stalks	0.35	0.27	1.3	1.1	0.15
Paddy	Straw	5.4	6.5	9.7	0.97	0.12
Paddy	Husk	5.4	6.5	1.3	1.0	0.11
Others	Others	2.8	2.0	2.7	0.37	0.047
Total		45.8	127.9	314.6	34.6	4.6

District Level Taluk Wise

DistrictLevel Taluk-wise Data for Bishnupur ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Moinrag	0.18	0.25	0.49	0.38	0.054
Bishnupur	0.033	0.037	0.10	0.080	0.011
Total	0.21	0.29	0.59	0.46	0.065

DistrictLevel Taluk-wise Data for Chandel ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Chandel	9.0	6.7	16.5	1.9	0.25
Tengnoupal	5.4	3.9	9.2	1.6	0.22
Chakpikarong	5.5	4.0	10.0	1.4	0.19
Total	20.0	14.6	35.6	4.9	0.66

DistrictLevel Taluk-wise Data for Churachandpur ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Thanlon	16.8	20.7	42.9	8.5	1.1
Tipaimukh	21.2	23.9	60.8	7.1	0.94
Churachandpur	14.4	17.1	40.3	5.8	0.76
Singngat	1.4	1.7	5.4	2.0	0.28
Churachandpur North	0.72	0.99	2.6	0.95	0.13
Total	54.5	64.4	151.9	24.3	3.17

DistrictLevel Taluk-wise Data for Imphal ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Imphal East Ii	14.8	16.5	34.8	4.6	0.57
Imphal West Ii	13.6	11.2	19.9	3.4	0.40
Jiribam	6.1	10.6	25.8	2.7	0.35
Imphal East I	9.2	7.5	12.8	2.2	0.26
Imphal West I	0.11	0.10	0.20	0.031	0.0037
Total	43.8	46.0	93.6	13.0	1.58

DistrictLevel Taluk-wise Data for Senapati ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paomata	19.0	13.7	24.9	4.4	0.53
Sadar Hills East	22.6	13.2	29.0	3.8	0.48
Maomaram	5.9	4.2	8.3	1.3	0.17
Sadar Hills West	3.8	2.9	4.9	0.87	0.10
Total	51.3	34.0	67.1	10.5	1.29

DistrictLevel Taluk-wise Data for Tamenglang ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Nungba	29.9	39.2	86.7	11.3	1.4
Tamenglang	5.0	7.9	17.8	2.0	0.26
Total	34.9	47.0	104.4	13.3	1.68

DistrictLevel Taluk-wise Data for Tamenglong ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Tamenglong North	15.1	30.4	75.0	8.0	1.1
Tamenglong West	9.0	12.8	27.6	4.1	0.53
Total	24.0	43.2	102.6	12.1	1.58

DistrictLevel Taluk-wise Data for Thoubal ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Thoubal	16.0	12.0	20.4	3.8	0.44
Kakching	10.7	7.9	13.5	2.5	0.29
Total	26.7	19.9	34.0	6.3	0.73

DistrictLevel Taluk-wise Data for Ukhrul ; Biomass Class : Agro					
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ukhrul Central	13.6	39.7	99.5	11.4	1.5
Phungyar Paisat	11.2	34.9	86.9	9.0	1.2
Ukhrul South	13.0	32.4	77.7	8.6	1.1
Khamjong Chassad	7.8	20.7	50.0	5.5	0.71
Ukhrul North	0.16	0.20	0.62	0.22	0.030
Total	45.8	127.9	314.6	34.6	4.55

Taluk Level Residue Wise

Taluk level Residue-wise Data for Bishnupur ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.033	0.037	0.10	0.080	0.011
Total		0.033	0.037	0.10	0.080	0.011

Taluk level Residue-wise Data for Moinrag ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Coffee	Pruning & Wastes	0.12	0.0014	0.48	0.38	0.053
Others	Others	0.056	0.25	0.013	0.0013	0.00019
Total		0.18	0.25	0.49	0.38	0.054

Taluk level Residue-wise Data for Chakpikarong ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.72	0.43	2.8	0.69	0.096
Maize	Stalks	4.8	3.6	7.2	0.72	0.094
Total		5.5	4.0	10.0	1.4	0.19

Taluk level Residue-wise Data for Chandel ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	8.4	6.3	12.6	1.3	0.16
Others	Others	0.62	0.39	3.9	0.63	0.087
Total		9.0	6.7	16.5	1.9	0.25

Taluk level Residue-wise Data for Tengnoupal ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	1.7	1.1	3.2	0.60	0.079
Maize	Stalks	3.6	2.7	5.4	0.54	0.070
Cotton	Stalks	0.16	0.099	0.59	0.47	0.066
Total		5.4	3.9	9.2	1.6	0.22

Taluk level Residue-wise Data for Churachandpur ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.5	11.9	23.8	2.4	0.31
Cotton	Stalks	0.46	0.55	1.8	1.4	0.20
Maize	Cobs	10.5	11.9	6.0	0.60	0.083
Paddy	Straw	2.8	3.6	5.4	0.54	0.065
Paddy	Husk	2.8	3.6	0.72	0.58	0.063
Others	Others	0.63	1.0	2.6	0.28	0.038
Total		14.4	17.1	40.3	5.8	0.76

Taluk level Residue-wise Data for Churachandpur North ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.24	0.29	0.91	0.72	0.10
Others	Others	0.49	0.71	1.7	0.23	0.030
Total		0.72	0.99	2.6	0.95	0.13

Taluk level Residue-wise Data for Singngat ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.50	0.59	1.9	1.5	0.21
Others	Others	0.86	1.1	3.5	0.50	0.068
Total		1.4	1.7	5.4	2.0	0.28

Taluk level Residue-wise Data for Thanlon ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	0.72	0.86	2.7	2.2	0.30
Paddy	Straw	10.9	14.0	21.1	2.1	0.25
Paddy	Husk	10.9	14.0	2.8	2.2	0.25
Maize	Stalks	4.7	5.4	10.7	1.1	0.14
Others	Others	0.45	0.48	5.6	0.87	0.12
Total		16.8	20.7	42.9	8.5	1.1

Taluk level Residue-wise Data for Tipaimukh ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	20.6	23.3	46.6	4.7	0.61
Maize	Cobs	20.6	23.3	11.6	1.2	0.16
Cotton	Stalks	0.34	0.41	1.3	1.0	0.15
Others	Others	0.22	0.17	1.2	0.20	0.027
Total		21.2	23.9	60.8	7.1	0.94

Taluk level Residue-wise Data for Imphal East I ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	8.8	6.9	10.3	1.0	0.12
Paddy	Husk	8.8	6.9	1.4	1.1	0.12
Others	Others	0.40	0.60	1.2	0.12	0.016
Total		9.2	7.5	12.8	2.2	0.26

Taluk level Residue-wise Data for Imphal East II ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	4.4	8.4	16.8	1.7	0.22
Paddy	Straw	10.4	8.1	12.2	1.2	0.15
Paddy	Husk	10.4	8.1	1.6	1.3	0.14
Maize	Cobs	4.4	8.4	4.2	0.42	0.059
Others	Others	0.018	0.022	0.030	0.0035	0.00044
Total		14.8	16.5	34.8	4.6	0.57

Taluk level Residue-wise Data for Imphal West I ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.11	0.10	0.20	0.031	0.0037
Total		0.11	0.10	0.20	0.031	0.0037

Taluk level Residue-wise Data for Imphal West II ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	13.0	10.2	15.3	1.5	0.18
Paddy	Husk	13.0	10.2	2.0	1.6	0.18
Others	Others	0.59	1.1	2.6	0.27	0.035
Total		13.6	11.2	19.9	3.4	0.40

Taluk level Residue-wise Data for Jiribam ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	5.0	9.7	19.4	1.9	0.25
Maize	Cobs	5.0	9.7	4.9	0.49	0.068
Others	Others	1.1	0.91	1.5	0.27	0.031
Total		6.1	10.6	25.8	2.7	0.35

Taluk level Residue-wise Data for Maomaram ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	5.9	4.2	8.3	1.3	0.17
Total		5.9	4.2	8.3	1.3	0.17

Taluk level Residue-wise Data for Paomata ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	13.8	10.8	16.2	1.6	0.19
Paddy	Husk	13.8	10.8	2.2	1.7	0.19
Others	Others	0.89	0.80	2.3	0.65	0.090
Maize	Stalks	4.2	2.1	4.2	0.42	0.055
Total		19.0	13.7	24.9	4.4	0.53

Taluk level Residue-wise Data for Sadar Hills East ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	16.1	8.0	16.1	1.6	0.21
Paddy	Straw	6.2	4.9	7.3	0.73	0.087
Paddy	Husk	6.2	4.9	0.97	0.78	0.086
Maize	Cobs	16.1	8.0	4.0	0.40	0.056
Others	Others	0.28	0.28	0.64	0.32	0.044
Total		22.6	13.2	29.0	3.8	0.48

Taluk level Residue-wise Data for Sadar Hills West ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	3.8	2.9	4.9	0.87	0.10
Total		3.8	2.9	4.9	0.87	0.10

Taluk level Residue-wise Data for Nungba ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	11.6	24.7	49.3	4.9	0.64
Paddy	Straw	17.1	13.3	20.0	2.0	0.24
Paddy	Husk	17.1	13.3	2.7	2.1	0.23
Maize	Cobs	11.6	24.7	12.3	1.2	0.17
Cotton	Stalks	0.18	0.35	0.68	0.54	0.076
Others	Others	1.0	0.86	1.7	0.43	0.059
Total		29.9	39.2	86.7	11.3	1.4

Taluk level Residue-wise Data for Tamenglang ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	2.9	6.1	12.1	1.2	0.16
Others	Others	2.1	1.8	5.6	0.81	0.10
Total		5.0	7.9	17.8	2.0	0.26

Taluk level Residue-wise Data for Tamenglong North ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	13.6	28.8	57.7	5.8	0.75
Maize	Cobs	13.6	28.8	14.4	1.4	0.20
Others	Others	1.5	1.6	2.9	0.81	0.11
Total		15.1	30.4	75.0	8.0	1.1

Taluk level Residue-wise Data for Tamenglong West ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	3.2	6.8	13.7	1.4	0.18
Others	Others	0.93	0.99	5.4	0.79	0.11
Paddy	Straw	4.6	4.6	6.9	0.69	0.083
Paddy	Husk	4.6	4.6	0.93	0.74	0.081
Cotton	Stalks	0.17	0.30	0.66	0.53	0.074
Total		9.0	12.8	27.6	4.1	0.53

Taluk level Residue-wise Data for Kakching ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	10.1	7.6	11.4	1.1	0.14
Paddy	Husk	10.1	7.6	1.5	1.2	0.13
Others	Others	0.53	0.34	0.61	0.13	0.018
Total		10.7	7.9	13.5	2.5	0.29

Taluk level Residue-wise Data for Thoubal ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	15.9	11.9	17.9	1.8	0.21
Paddy	Husk	15.9	11.9	2.4	1.9	0.21
Others	Others	0.088	0.037	0.15	0.11	0.016
Total		16.0	12.0	20.4	3.8	0.44

Taluk level Residue-wise Data for Khamjong Chassad ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	5.7	18.5	37.0	3.7	0.48
Maize	Cobs	5.7	18.5	9.2	0.92	0.13
Others	Others	2.0	2.2	3.7	0.84	0.10
Total		7.8	20.7	50.0	5.5	0.71

Taluk level Residue-wise Data for Phungyar Paisat ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	10.6	34.3	68.5	6.9	0.89
Maize	Cobs	10.6	34.3	17.1	1.7	0.24
Others	Others	0.63	0.63	1.2	0.39	0.051
Total		11.2	34.9	86.9	9.0	1.2

Taluk level Residue-wise Data for Ukhrul Central ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	11.8	38.1	76.2	7.6	0.99
Maize	Cobs	11.8	38.1	19.1	1.9	0.27
Coffee	Pruning & Wastes	0.33	0.0079	1.3	1.1	0.15
Others	Others	1.6	1.6	2.9	0.78	0.100
Total		13.6	39.7	99.5	11.4	1.5

Taluk level Residue-wise Data for Ukhrul North ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Others	Others	0.16	0.20	0.62	0.22	0.030
Total		0.16	0.20	0.62	0.22	0.030

Taluk level Residue-wise Data for Ukhrul South ; Biomass Class : Agro						
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Maize	Stalks	8.7	28.2	56.3	5.6	0.73
Maize	Cobs	8.7	28.2	14.1	1.4	0.20
Others	Others	1.8	1.2	2.2	0.63	0.085
Paddy	Straw	2.5	3.0	4.5	0.45	0.054
Paddy	Husk	2.5	3.0	0.60	0.48	0.053
Total		13.0	32.4	77.7	8.6	1.1

Note:

Biomass Data for season 'Rabi' for 'Manipur' is not available at CGPL

Others' contributes to collection of crops whose Power Potential is less than 0.05MWyre. These residues will not be separately listed instead they are aggregated into 'Others'.

The Tolerance for the above data at Taluk level is about 25%. The residue-wise data at taluk level may have a tolerance of more than 25% depending on spatial availability of agro-area and spatial aggregation as compared to statistically reported crop area. District Survey instituted by MNRE [Ministry of New & Renewable Energy] was done and biomass was reported for period beyond 1999 of the States country wide. The updated crop data at the district level is used as an input to construct the Biomass Atlas Enabling spatial extraction of the biomass data tables above.