Biomass Mapping for Power Generation for Punjab

Biomass Manual



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Biomass Assessment for Punjab for Kharif, Rabi, Yearly and Agro

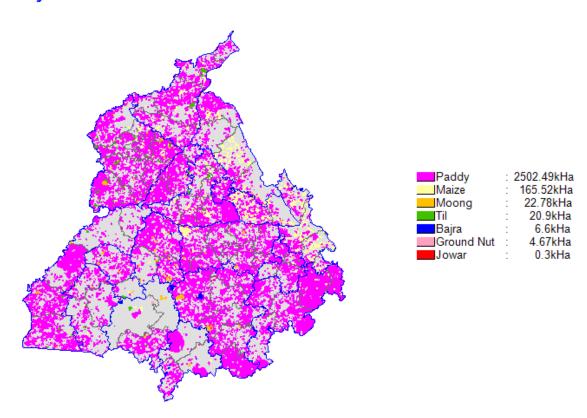


Biomass Assessment for Punjab

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Kharif

Punjab-Kharif



State Level Residue Wise

St	State level Residue-wise Data for Punjab; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	2502.5	8872.9	13309.4	10647.5	1277.7				
Paddy	Husk	2502.5	8872.9	1774.6	1419.7	156.2				
Maize	Stalks	165.5	452.7	905.4	181.1	23.5				
Maize	Cobs	165.5	452.7	226.3	67.9	9.5				
Til	Stalks	20.9	7.8	19.5	1.9	0.25				
Groundnut	Stalks	4.7	4.2	8.5	1.7	0.22				
Moong	Stalks	22.8	13.1	14.4	1.4	0.19				
Bajra	Stalks	6.6	6.2	12.4	1.2	0.16				
Bajra	Cobs	6.6	6.2	2.0	1.0	0.13				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	
Groundnut	Shell	4.7	4.2	1.3	0.89	0.11
Bajra	Husk	6.6	6.2	1.9	0.46	0.056
Others	Others	0.30	0.31	2.7	0.31	0.038
Total		2723.3	9357.2	16278.2	12325.2	1468.1

State Level District Wise

State level	State level District-wise Data for Punjab ; Season : Kharif								
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sangrur	363.9	1398.5	2382.6	1892.1	224.9				
Amritsar	336.5	977.5	1675.7	1312.2	156.0				
Ludhiana	244.4	935.6	1603.7	1256.1	149.4				
Patiala	253.1	913.2	1556.1	1238.1	147.2				
Firozpur	238.7	870.2	1480.4	1177.9	140.0				
Moga	158.8	591.3	1007.6	799.3	95.0				
Gurdaspur	209.8	599.0	1040.3	791.9	94.3				
Jalandhar	150.3	495.1	881.6	632.3	75.5				
Kapurthala	109.7	379.0	655.4	503.9	60.0				
Fatehgarh Sahib	82.1	327.2	558.9	442.3	52.6				
Bathinda	85.8	311.9	531.6	421.1	50.1				
Faridkot	72.4	270.2	460.4	365.0	43.4				
Hoshiarpur	129.7	365.7	775.9	340.6	41.9				
Mansa	72.1	250.0	427.3	337.2	40.1				
Muktsar	70.5	247.1	421.7	332.4	39.5				
Rupnagar	82.0	231.6	447.7	260.3	31.4				
Nawanshahr	63.4	194.3	371.4	222.4	26.8				
Total	2723.3	9357.2	16278.2	12325.2	1468.1				

State Level Taluk Wise

	State level Taluk-w	ise Data for	Punjab ; Se	ason : Khari	f	
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Sangrur	Barnala	112.8	428.4	729.7	579.4	68.9
Moga	Moga	106.3	398.3	678.2	539.6	64.1
Patiala	Patiala	90.6	327.2	557.2	444.2	52.8
Firozpur	Fazilka	82.3	303.3	515.9	411.4	48.9
Bathinda	Talwandi Sabo	80.1	298.6	507.6	405.9	48.2
Patiala	Rajpura	81.2	292.3	499.0	395.3	47.0
Gurdaspur	Gurdaspur	94.4	269.8	469.9	355.5	42.4
Firozpur	Abohar	74.9	263.8	449.2	354.7	42.2
Faridkot	Faridkot	67.5	253.8	432.0	343.5	40.8
Amritsar	Tarn-Taran	82.6	244.9	418.3	330.8	39.3
Firozpur	Jalalabad	64.9	243.0	413.1	330.4	39.3
Amritsar	Patti	83.9	244.5	418.3	328.8	39.1
Sangrur	Sunam	61.0	236.6	402.3	321.3	38.2
Sangrur	Moonak	60.1	234.6	398.8	319.0	37.9
Sangrur	Sangrur	60.4	230.1	390.7	311.4	37.0
Ludhiana	Jagraon	62.1	236.3	414.7	307.5	36.7
Jalandhar	Phillaur	64.7	214.3	373.8	281.6	33.6
Kapurthala	Kapurthala	50.6	173.8	300.0	231.7	27.6
Gurdaspur	Batala	60.3	174.3	302.0	231.3	27.5
Fatehgarh Sahib	Fatehgarh Sahib	41.5	165.5	282.5	223.8	26.6
Sangrur	Malerkotla	42.3	164.5	279.8	223.7	26.6
Ludhiana	Ludhiana(East)	42.4	163.4	278.0	221.5	26.3
Moga	Nihal Singhwala	43.5	161.0	274.2	217.5	25.8
Mansa	Sardulgarh	41.9	146.6	250.5	197.9	23.5
Nawanshahr	Nawanshahr	52.2	160.6	302.5	188.7	22.7
Ludhiana	Samrala	35.7	138.8	236.1	188.8	22.4
Amritsar	Ajnala	47.0	136.9	235.0	183.7	21.8
Muktsar	Malout	38.0	135.1	231.2	182.0	21.6
Kapurthala	Sultanpur Lodhi	35.8	124.1	214.4	165.3	19.7
Patiala	Nabha	33.1	119.8	203.8	162.7	19.3
Patiala	Dera Bassi	33.0	119.3	203.2	161.8	19.2
Ludhiana	Ludhiana(West)	29.3	112.2	190.6	152.3	18.1

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Gurdaspur	Pathankot	41.0	114.1	198.1	150.7	17.9
Hoshiarpur	Mukerian	44.3	124.5	232.9	147.7	17.8
Ludhiana	Raikot	27.4	105.7	179.7	143.6	17.1
Ludhiana	Payal	27.9	102.8	174.5	138.9	16.5
Jalandhar	Nakodar	31.6	105.4	184.7	137.6	16.4
Sangrur	Dhuri	27.3	104.2	181.4	137.3	16.4
Amritsar	Baba Bakala	38.0	102.3	176.6	135.3	16.1
Amritsar	Amritsar-I	32.1	92.9	159.1	124.6	14.8
Rupnagar	Rupnagar	35.7	103.5	196.5	120.0	14.5
Jalandhar	Jalandhar-I	29.2	94.6	170.6	118.7	14.2
Hoshiarpur	Hoshiarpur	52.4	151.1	361.2	99.7	12.8
Amritsar	Khadur Sahib	26.2	77.5	132.3	104.7	12.4
Amritsar	Amritsar-Ii	26.8	78.6	136.0	104.3	12.4
Ludhiana	Khanna	19.6	76.3	130.1	103.5	12.3
Fatehgarh Sahib	Khamanon	18.8	75.1	127.8	102.0	12.1
Fatehgarh Sahib	Bassi Pathana	17.9	70.9	121.2	95.7	11.4
Mansa	Mansa	20.4	70.5	120.3	95.4	11.3
Muktsar	Muktsar	20.6	70.7	119.9	94.9	11.3
Kapurthala	Phagwara	20.4	70.8	123.2	93.4	11.1
Rupnagar	Anandpur Sahib	23.4	66.3	127.6	75.0	9.1
Patiala	Samana	15.1	54.6	93.0	74.1	8.8
Hoshiarpur	Garhshankar	24.1	66.8	141.7	62.1	7.6
Jalandhar	Jalandhar-Ii	15.5	50.1	95.8	57.3	6.9
Muktsar	Giddarbaha	11.9	41.3	70.6	55.5	6.6
Rupnagar	Kharar	18.7	50.3	100.0	53.7	6.5
Firozpur	Firozpur	10.2	36.3	61.6	48.9	5.8
Mansa	Budhlada	9.8	32.9	56.5	43.9	5.2
Moga	Bagha Purana	9.1	32.0	55.2	42.2	5.0
Jalandhar	Shahkot	9.3	30.7	56.8	37.0	4.4
Nawanshahr	Balachaur	11.2	33.6	68.9	33.7	4.1
Firozpur	Zira	6.4	23.9	40.6	32.4	3.9
Hoshiarpur	Dasua	8.9	23.3	40.1	31.2	3.7
Gurdaspur	Dera Baba Nanak	8.1	23.3	40.6	30.7	3.7
Gurdaspur	Dhar Kalan	5.9	17.4	29.6	23.7	2.8
Faridkot	Jaitu	4.9	16.4	28.3	21.5	2.6
Fatehgarh Sahib	Amloh	4.0	15.7	27.3	20.8	2.5
Bathinda	Bathinda	4.4	12.5	23.2	15.1	1.8

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	
Kapurthala	Bhulath	3.0	10.2	17.8	13.6	1.6
Rupnagar	S.A.S.Nagar(Mohali)	4.2	11.5	23.6	11.5	1.4
Bathinda	Rampura Phul	1.3	0.72	0.90	0.090	0.012
	2723.3	9357.2	16278.2	12325.2	1468.1	

District Level Residue Wise

Di	District level Residue-wise Data for Amritsar; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	319.0	958.1	1437.1	1149.7	138.0				
Paddy	Husk	319.0	958.1	191.6	153.3	16.9				
Maize	Stalks	6.0	15.0	30.0	6.0	0.78				
Maize	Cobs	6.0	15.0	7.5	2.3	0.32				
Til	Stalks	9.0	3.1	7.8	0.78	0.10				
Others	Others	2.4	1.3	1.6	0.16	0.021				
T	otal	336.5	977.5	1675.7	1312.2	156.0				

Di	District level Residue-wise Data for Bathinda; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	82.5	308.7	463.0	370.4	44.4				
Paddy	Husk	82.5	308.7	61.7	49.4	5.4				
Others	Others	2.8	1.9	4.3	0.80	0.10				
Maize	Stalks	0.46	1.3	2.6	0.52	0.068				
T	otal	85.8	311.9	531.6	421.1	50.1				

Disti	District level Residue-wise Data for Faridkot; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	70.0	267.6	401.5	321.2	38.5				
Paddy	Husk	70.0	267.6	53.5	42.8	4.7				
Maize	Stalks	0.45	1.3	2.6	0.51	0.067				
Others	Others	1.9	1.3	2.8	0.49	0.065				
Total 72			270.2	460.4	365.0	43.4				

Distr	District level Residue-wise Data for Fatehgarh Sahib; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	81.0	323.9	485.8	388.7	46.6				
Paddy	Husk	81.0	323.9	64.8	51.8	5.7				
Maize	Stalks	1.0	3.2	6.5	1.3	0.17				
Maize	Cobs	1.0	3.2	1.6	0.49	0.068				
Others Others 0.13 0.087 0.18 0.035 0										
T	Total 82.1 327.2 558.9 442.3 52.6									

Di	District level Residue-wise Data for Firozpur; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	230.4	865.0	1297.5	1038.0	124.6				
Paddy	Husk	230.4	865.0	173.0	138.4	15.2				
Others	Others	7.9	3.9	7.4	0.96	0.13				
Maize	Stalks	0.45	1.3	2.6	0.51	0.066				
T	otal	238.7	870.2	1480.4	1177.9	140.0				

Dis	District level Residue-wise Data for Gurdaspur; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	194.1	571.3	857.0	685.6	82.3			
Paddy	Husk	194.1	571.3	114.3	91.4	10.1			
Maize	Stalks	13.0	26.6	53.3	10.7	1.4			
Maize	Cobs	13.0	26.6	13.3	4.0	0.56			
Others	Others	2.7	0.98	2.4	0.26	0.034			
T	otal	209.8	599.0	1040.3	791.9	94.3			

Distri	District level Residue-wise Data for Hoshiarpur; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	60.5	172.2	258.3	206.6	24.8			
Maize	Stalks	65.3	190.2	380.5	76.1	9.9			
Maize	Cobs	65.3	190.2	95.1	28.5	4.0			
Paddy	Husk	60.5	172.2	34.4	27.5	3.0			
Groundnut	Stalks	2.9	2.7	5.4	1.1	0.14			
Groundnut	Shell	2.9	2.7	0.81	0.57	0.068			
Others	Others	0.91	0.60	1.4	0.17	0.022			
Tot	al	129.7	365.7	775.9	340.6	41.9			

Dis	District level Residue-wise Data for Jalandhar; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	132.0	444.8	667.3	533.8	64.1			
Paddy	Husk	132.0	444.8	89.0	71.2	7.8			
Maize	Stalks	16.3	49.3	98.6	19.7	2.6			
Maize	Cobs	16.3	49.3	24.6	7.4	1.0			
Others	Others	2.0	0.94	2.2	0.25	0.032			
T	otal	150.3	495.1	881.6	632.3	75.5			

Dist	District level Residue-wise Data for Kapurthala; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	105.1	364.9	547.4	437.9	52.5			
Paddy	Husk	105.1	364.9	73.0	58.4	6.4			
Maize	Stalks	4.0	13.8	27.6	5.5	0.72			
Maize	Cobs	4.0	13.8	6.9	2.1	0.29			
Others	Others	0.56	0.25	0.54	0.072	0.0092			
Total		109.7	379.0	655.4	503.9	60.0			

Di	District level Residue-wise Data for Ludhiana; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	235.2	916.4	1374.6	1099.7	132.0			
Paddy	Husk	235.2	916.4	183.3	146.6	16.1			
Maize	Stalks	5.1	17.3	34.7	6.9	0.90			
Maize	Cobs	5.1	17.3	8.7	2.6	0.36			
Others	Others	4.2	1.9	2.5	0.26	0.034			
Total		244.4	935.6	1603.7	1256.1	149.4			

Г	District level Residue-wise Data for Mansa; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	69.3	246.9	370.3	296.3	35.6			
Paddy	Husk	69.3	246.9	49.4	39.5	4.3			
Others	Others	2.3	1.9	5.0	0.92	0.12			
Maize	Stalks	0.45	1.3	2.5	0.51	0.066			
Total 72.		72.1	250.0	427.3	337.2	40.1			

I	District level Residue-wise Data for Moga; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	154.0	586.2	879.3	703.5	84.4				
Paddy	Husk	154.0	586.2	117.2	93.8	10.3				
Maize	Stalks	1.0	2.7	5.5	1.1	0.14				
Others	Others	3.8	2.4	4.1	0.57	0.073				
Maize	Cobs	1.0	2.7	1.4	0.41	0.057				
Total		158.8	591.3	1007.6	799.3	95.0				

Di	District level Residue-wise Data for Muktsar; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	66.3	243.4	365.1	292.1	35.1				
Paddy	Husk	66.3	243.4	48.7	38.9	4.3				
Others	Others	3.7	2.4	5.3	0.81	0.11				
Maize	Stalks	0.45	1.3	2.6	0.51	0.066				
Total		70.5	247.1	421.7	332.4	39.5				

Distric	District level Residue-wise Data for Nawanshahr; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	45.0	142.7	214.0	171.2	20.5			
Maize	Stalks	18.2	51.5	102.9	20.6	2.7			
Paddy	Husk	45.0	142.7	28.5	22.8	2.5			
Maize	Cobs	18.2	51.5	25.7	7.7	1.1			
Others	Others	0.19	0.093	0.19	0.031	0.0039			
T	otal	63.4	194.3	371.4	222.4	26.8			

Γ	District level Residue-wise Data for Patiala; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	251.0	908.5	1362.8	1090.2	130.8			
Paddy	Husk	251.0	908.5	181.7	145.4	16.0			
Maize	Stalks	2.0	4.7	9.3	1.9	0.24			
Maize	Cobs	2.0	4.7	2.3	0.70	0.098			
Others	Others	0.028	0.018	0.023	0.0023	0.00030			
Total		253.1	913.2	1556.1	1238.1	147.2			

Dis	District level Residue-wise Data for Rupnagar; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	51.4	164.3	246.4	197.2	23.7			
Maize	Stalks	29.2	66.3	132.6	26.5	3.4			
Paddy	Husk	51.4	164.3	32.9	26.3	2.9			
Maize	Cobs	29.2	66.3	33.2	9.9	1.4			
Others	Others	1.4	1.0	2.6	0.41	0.053			
T	otal	82.0	231.6	447.7	260.3	31.4			

D	District level Residue-wise Data for Sangrur; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	355.7	1388.0	2082.0	1665.6	199.9			
Paddy	Husk	355.7	1388.0	277.6	222.1	24.4			
Maize	Stalks	2.0	5.6	11.1	2.2	0.29			
Others	Others	4.0	2.9	5.1	0.96	0.12			
Maize	Cobs	2.0	5.6	2.8	0.83	0.12			
Bajra	Stalks	2.1	2.0	4.0	0.40	0.052			
Total		363.9	1398.5	2382.6	1892.1	224.9			

Disrict Level Taluk Wise

DistrictLevel Taluk-wise Data for Amritsar; Season: Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Tarn-Taran	82.6	244.9	418.3	330.8	39.3			
Patti	83.9	244.5	418.3	328.8	39.1			
Ajnala	47.0	136.9	235.0	183.7	21.8			
Baba Bakala	38.0	102.3	176.6	135.3	16.1			
Amritsar-I	32.1	92.9	159.1	124.6	14.8			
Khadur Sahib	26.2	77.5	132.3	104.7	12.4			
Amritsar-Ii	26.8	78.6	136.0	104.3	12.4			
Total	336.5	977.5	1675.7	1312.2	156.0			

DistrictLevel Taluk-wise Data for Bathinda; Season: Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Talwandi Sabo	80.1	298.6	507.6	405.9	48.2			
Bathinda	4.4	12.5	23.2	15.1	1.8			
Rampura Phul	1.3	0.72	0.90	0.090	0.012			
Total	85.8	311.9	531.6	421.1	50.1			

District	DistrictLevel Taluk-wise Data for Faridkot; Season: Kharif									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Faridkot	67.5	253.8	432.0	343.5	40.8					
Jaitu	4.9	16.4	28.3	21.5	2.6					
Total	72.4	270.2	460.4	365.0	43.4					

DistrictLevel Taluk-wise Data for Fatehgarh Sahib; Season: Kharif									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Fatehgarh Sahib	41.5	165.5	282.5	223.8	26.6				
Khamanon	18.8	75.1	127.8	102.0	12.1				
Bassi Pathana	17.9	70.9	121.2	95.7	11.4				
Amloh	4.0	15.7	27.3	20.8	2.5				
Total	82.1	327.2	558.9	442.3	52.6				

Dist	DistrictLevel Taluk-wise Data for Firozpur ; Season : Kharif									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Fazilka	82.3	303.3	515.9	411.4	48.9					
Abohar	74.9	263.8	449.2	354.7	42.2					
Jalalabad	64.9	243.0	413.1	330.4	39.3					
Firozpur	10.2	36.3	61.6	48.9	5.8					
Zira	6.4	23.9	40.6	32.4	3.9					
Total	238.7	870.2	1480.4	1177.9	140.0					

DistrictLevel Taluk-wise Data for Gurdaspur ; Season : Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Gurdaspur	94.4	269.8	469.9	355.5	42.4			
Batala	60.3	174.3	302.0	231.3	27.5			
Pathankot	41.0	114.1	198.1	150.7	17.9			
Dera Baba Nanak	8.1	23.3	40.6	30.7	3.7			
Dhar Kalan	5.9	17.4	29.6	23.7	2.8			
Total	209.8	599.0	1040.3	791.9	94.3			

DistrictLevel Taluk-wise Data for Hoshiarpur ; Season : Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Mukerian	44.3	124.5	232.9	147.7	17.8			
Hoshiarpur	52.4	151.1	361.2	99.7	12.8			
Garhshankar	24.1	66.8	141.7	62.1	7.6			
Dasua	8.9	23.3	40.1	31.2	3.7			
Total	129.7	365.7	775.9	340.6	41.9			

DistrictLevel Taluk-wise Data for Jalandhar ; Season : Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Phillaur	64.7	214.3	373.8	281.6	33.6			
Nakodar	31.6	105.4	184.7	137.6	16.4			
Jalandhar-I	29.2	94.6	170.6	118.7	14.2			
Jalandhar-Ii	15.5	50.1	95.8	57.3	6.9			
Shahkot	9.3	30.7	56.8	37.0	4.4			
Total	150.3	495.1	881.6	632.3	75.5			

DistrictLevel Taluk-wise Data for Kapurthala; Season: Kharif									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Kapurthala	50.6	173.8	300.0	231.7	27.6				
Sultanpur Lodhi	35.8	124.1	214.4	165.3	19.7				
Phagwara	20.4	70.8	123.2	93.4	11.1				
Bhulath	3.0	10.2	17.8	13.6	1.6				
Total	109.7	379.0	655.4	503.9	60.0				

DistrictI	DistrictLevel Taluk-wise Data for Ludhiana; Season: Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Jagraon	62.1	236.3	414.7	307.5	36.7				
Ludhiana(East)	42.4	163.4	278.0	221.5	26.3				
Samrala	35.7	138.8	236.1	188.8	22.4				
Ludhiana(West)	29.3	112.2	190.6	152.3	18.1				
Raikot	27.4	105.7	179.7	143.6	17.1				
Payal	27.9	102.8	174.5	138.9	16.5				
Khanna	19.6	76.3	130.1	103.5	12.3				
Total	244.4	935.6	1603.7	1256.1	149.4				

Dist	DistrictLevel Taluk-wise Data for Mansa; Season: Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sardulgarh	41.9	146.6	250.5	197.9	23.5				
Mansa	20.4	70.5	120.3	95.4	11.3				
Budhlada	9.8	32.9	56.5	43.9	5.2				
Total	72.1	250.0	427.3	337.2	40.1				

DistrictLevel Taluk-wise Data for Moga ; Season : Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Moga	106.3	398.3	678.2	539.6	64.1			
Nihal Singhwala	43.5	161.0	274.2	217.5	25.8			
Bagha Purana	9.1	32.0	55.2	42.2	5.0			
Total	158.8	591.3	1007.6	799.3	95.0			

DistrictLevel Taluk-wise Data for Muktsar; Season: Kharif							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Malout	38.0	135.1	231.2	182.0	21.6		
Muktsar	20.6	70.7	119.9	94.9	11.3		
Giddarbaha	11.9	41.3	70.6	55.5	6.6		
Total	70.5	247.1	421.7	332.4	39.5		

DistrictLevel Taluk-wise Data for Nawanshahr ; Season : Kharif								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Nawanshahr	52.2	160.6	302.5	188.7	22.7			
Balachaur	11.2	33.6	68.9	33.7	4.1			
Total	63.4	194.3	371.4	222.4	26.8			

Dist	DistrictLevel Taluk-wise Data for Patiala; Season: Kharif							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Patiala	90.6	327.2	557.2	444.2	52.8			
Rajpura	81.2	292.3	499.0	395.3	47.0			
Nabha	33.1	119.8	203.8	162.7	19.3			
Dera Bassi	33.0	119.3	203.2	161.8	19.2			
Samana	15.1	54.6	93.0	74.1	8.8			
Total	253.1	913.2	1556.1	1238.1	147.2			

DistrictLevel Taluk-wise Data for Rupnagar ; Season : Kharif									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Rupnagar	35.7	103.5	196.5	120.0	14.5				
Anandpur Sahib	23.4	66.3	127.6	75.0	9.1				
Kharar	18.7	50.3	100.0	53.7	6.5				
S.A.S.Nagar(Mohali)	4.2	11.5	23.6	11.5	1.4				
Total	82.0	231.6	447.7	260.3	31.4				

DistrictLevel Taluk-wise Data for Sangrur ; Season : Kharif							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Barnala	112.8	428.4	729.7	579.4	68.9		
Sunam	61.0	236.6	402.3	321.3	38.2		
Moonak	60.1	234.6	398.8	319.0	37.9		
Sangrur	60.4	230.1	390.7	311.4	37.0		
Malerkotla	42.3	164.5	279.8	223.7	26.6		
Dhuri	27.3	104.2	181.4	137.3	16.4		
Total	363.9	1398.5	2382.6	1892.1	224.9		

Taluk Level Residue Wise

Tal	Taluk level Residue-wise Data for Ajnala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	44.6	134.0	201.0	160.8	19.3			
Paddy	Husk	44.6	134.0	26.8	21.4	2.4			
Maize	Stalks	0.97	2.4	4.8	0.97	0.13			
Maize	Cobs	0.97	2.4	1.2	0.36	0.051			
Others	Others	1.4	0.50	1.2	0.12	0.015			
T	otal	47.0	136.9	235.0	183.7	21.8			

Talul	Taluk level Residue-wise Data for Amritsar-I ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	30.3	91.0	136.5	109.2	13.1			
Paddy	Husk	30.3	91.0	18.2	14.6	1.6			
Maize	Stalks	0.55	1.4	2.7	0.54	0.070			
Others	Others	1.3	0.52	1.7	0.31	0.042			
T	Total 32.1 92.9 159.1 124.6 14								

Taluk	Taluk level Residue-wise Data for Amritsar-Ii ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	25.1	75.5	113.2	90.6	10.9			
Paddy	Husk	25.1	75.5	15.1	12.1	1.3			
Maize	Stalks	1.2	2.9	5.8	1.2	0.15			
Maize	Cobs	1.2	2.9	1.4	0.43	0.061			
Others	Others	0.53	0.20	0.45	0.045	0.0058			
T	otal	26.8	78.6	136.0	104.3	12.4			

Taluk	Taluk level Residue-wise Data for Baba Bakala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	32.7	98.2	147.4	117.9	14.1			
Paddy	Husk	32.7	98.2	19.6	15.7	1.7			
Maize	Stalks	0.96	2.4	4.8	0.96	0.12			
Maize	Cobs	0.96	2.4	1.2	0.36	0.050			
Others	Others	4.3	1.7	3.6	0.36	0.046			
T	otal	38.0	102.3	176.6	135.3	16.1			

Taluk l	Taluk level Residue-wise Data for Khadur Sahib; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	25.5	76.7	115.0	92.0	11.0			
Paddy	Husk	25.5	76.7	15.3	12.3	1.3			
Others	Others	0.63	0.80	1.9	0.39	0.052			
T	Total 26.2 77.5 132.3 104.7 12.4								

Ta	Taluk level Residue-wise Data for Patti; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	80.0	240.4	360.6	288.5	34.6			
Paddy	Husk	80.0	240.4	48.1	38.5	4.2			
Maize	Stalks	1.2	3.0	6.1	1.2	0.16			
Maize	Cobs	1.2	3.0	1.5	0.46	0.064			
Others	Others	2.6	1.0	2.1	0.21	0.027			
T	otal	83.9	244.5	418.3	328.8	39.1			

Taluk	Taluk level Residue-wise Data for Tarn-Taran ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	80.7	242.3	363.4	290.7	34.9			
Paddy	Husk	80.7	242.3	48.5	38.8	4.3			
Maize	Stalks	0.91	2.3	4.5	0.90	0.12			
Others	Others	0.99	0.37	2.0	0.42	0.058			
T	otal	82.6	244.9	418.3	330.8	39.3			

Talu	Taluk level Residue-wise Data for Bathinda; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	2.7	10.2	15.4	12.3	1.5			
Paddy	Husk	2.7	10.2	2.0	1.6	0.18			
Others	Others	1.2	1.0	3.1	0.68	0.089			
Maize	Stalks	0.46	1.3	2.6	0.52	0.068			
Total		4.4	12.5	23.2	15.1	1.8			

Taluk level Residue-wise Data for Rampura Phul ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Potential	
Others	Others	1.3	0.72	0.90	0.090	0.012	
T	otal	1.3	0.72	0.90	0.090	0.012	

Tal	Taluk level Residue-wise Data for Talwandi Sabo ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	79.8	298.4	447.6	358.1	43.0		
Paddy	Husk	79.8	298.4	59.7	47.7	5.3		
Others	Others	0.33	0.17	0.25	0.025	0.0032		
To	otal	80.1	298.6	507.6	405.9	48.2		

Talu	Taluk level Residue-wise Data for Faridkot ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	65.9	252.1	378.1	302.5	36.3			
Paddy	Husk	65.9	252.1	50.4	40.3	4.4			
Others	Others	1.5	1.7	3.5	0.65	0.085			
Total		67.5	253.8	432.0	343.5	40.8			

Ta	Taluk level Residue-wise Data for Jaitu; Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	4.1	15.5	23.3	18.6	2.2		
Paddy	Husk	4.1	15.5	3.1	2.5	0.27		
Others	Others	0.84	0.85	1.9	0.35	0.046		
Total		4.9	16.4	28.3	21.5	2.6		

Tal	Taluk level Residue-wise Data for Amloh; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	3.8	15.0	22.5	18.0	2.2			
Paddy	Husk	3.8	15.0	3.0	2.4	0.26			
Others	Others	0.25	0.73	1.8	0.40	0.053			
Total		4.0	15.7	27.3	20.8	2.5			

Taluk	Taluk level Residue-wise Data for Bassi Pathana; Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	17.5	70.0	105.0	84.0	10.1		
Paddy	Husk	17.5	70.0	14.0	11.2	1.2		
Others	Others	0.34	0.88	2.2	0.47	0.063		
Total		17.9	70.9	121.2	95.7	11.4		

Talu	Taluk level Residue-wise Data for Fatehgarh Sahib ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	41.0	163.9	245.9	196.7	23.6		
Paddy	Husk	41.0	163.9	32.8	26.2	2.9		
Maize	Stalks	0.48	1.5	3.1	0.62	0.080		
Others	Others	0.011	0.0049	0.78	0.23	0.033		
Total 41.5		41.5	165.5	282.5	223.8	26.6		

Talul	Taluk level Residue-wise Data for Khamanon; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	18.7	74.9	112.4	89.9	10.8			
Paddy	Husk	18.7	74.9	15.0	12.0	1.3			
Others	Others	0.051	0.16	0.41	0.090	0.012			
Total		18.8	75.1	127.8	102.0	12.1			

Tal	Taluk level Residue-wise Data for Abohar; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	69.2	260.0	390.0	312.0	37.4			
Paddy	Husk	69.2	260.0	52.0	41.6	4.6			
Others	Others	5.2	2.5	4.6	0.60	0.079			
Maize	Stalks	0.45	1.3	2.6	0.51	0.066			
Total		74.9	263.8	449.2	354.7	42.2			

Tal	Taluk level Residue-wise Data for Fazilka; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	80.5	302.3	453.4	362.7	43.5			
Paddy	Husk	80.5	302.3	60.5	48.4	5.3			
Others	Others	1.8	0.99	2.1	0.29	0.037			
T	otal	82.3	303.3	515.9	411.4	48.9			

Talı	Taluk level Residue-wise Data for Firozpur ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	9.6	35.9	53.9	43.1	5.2			
Paddy	Husk	9.6	35.9	7.2	5.8	0.63			
Others	Others	0.67	0.34	0.48	0.048	0.0062			
T	Total		36.3	61.6	48.9	5.8			

Talu	Taluk level Residue-wise Data for Jalalabad; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	64.7	242.9	364.3	291.5	35.0			
Paddy	Husk	64.7	242.9	48.6	38.9	4.3			
Others	Others	0.25	0.086	0.21	0.021	0.0028			
T	otal	64.9	243.0	413.1	330.4	39.3			

Taluk level Residue-wise Data for Zira; Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Paddy	Straw	6.4	23.9	35.8	28.6	3.4	
Paddy	Husk	6.4	23.9	4.8	3.8	0.42	
T	otal	6.4	23.9	40.6	32.4	3.9	

Tal	Taluk level Residue-wise Data for Batala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	56.8	167.2	250.8	200.7	24.1			
Paddy	Husk	56.8	167.2	33.4	26.8	2.9			
Maize	Stalks	3.4	7.0	14.1	2.8	0.37			
Maize	Cobs	3.4	7.0	3.5	1.1	0.15			
Others	Others	0.092	0.080	0.15	0.034	0.0044			
T	Total		174.3	302.0	231.3	27.5			

Talul	Taluk level Residue-wise Data for Dera Baba Nanak ; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	7.5	22.1	33.1	26.5	3.2				
Paddy	Husk	7.5	22.1	4.4	3.5	0.39				
Maize	Stalks	0.61	1.3	2.5	0.50	0.065				
Others	Others	0	0	0.63	0.19	0.026				
T	otal	8.1	23.3	40.6						

Taluk	Taluk level Residue-wise Data for Dhar Kalan ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Paddy	Straw	5.9	17.4	26.1	20.9	2.5		
Paddy	Husk	5.9	17.4	3.5	2.8	0.31		
T	otal	5.9	17.4	29.6	23.7	2.8		

Talul	Taluk level Residue-wise Data for Gurdaspur ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	86.9	255.8	383.7	307.0	36.8			
Paddy	Husk	86.9	255.8	51.2	40.9	4.5			
Maize	Stalks	6.7	13.8	27.5	5.5	0.72			
Maize	Cobs	6.7	13.8	6.9	2.1	0.29			
Others	Others	0.82	0.28	0.70	0.070	0.0091			
T	otal	94.4	269.8	469.9	355.5	42.4			

Talu	Taluk level Residue-wise Data for Pathankot; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	37.0	108.8	163.3	130.6	15.7			
Paddy	Husk	37.0	108.8	21.8	17.4	1.9			
Maize	Stalks	2.2	4.6	9.2	1.8	0.24			
Maize	Cobs	2.2	4.6	2.3	0.69	0.097			
Others	Others	1.8	0.62	1.6	0.16	0.020			
T	Total		114.1	198.1	150.7	17.9			

Ta	Taluk level Residue-wise Data for Dasua ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	8.0	22.7	34.0	27.2	3.3		
Paddy	Husk	8.0	22.7	4.5	3.6	0.40		
Others	Others	0.90	0.64	1.5	0.29	0.037		
T	Total		23.3	40.1	31.2	3.7		

Taluk le	Taluk level Residue-wise Data for Garhshankar; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	11.0	31.3	46.9	37.5	4.5			
Maize	Stalks	11.8	34.4	68.8	13.8	1.8			
Maize	Cobs	11.8	34.4	17.2	5.2	0.72			
Paddy	Husk	11.0	31.3	6.3	5.0	0.55			
Groundnut	Stalks	1.1	0.99	2.0	0.39	0.051			
Others	Others	0.19	0.13	0.61	0.25	0.030			
Tota	al	24.1	66.8	141.7	62.1	7.6			

Talul	Taluk level Residue-wise Data for Hoshiarpur ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Maize	Stalks	44.7	130.2	260.4	52.1	6.8			
Paddy	Straw	7.2	20.5	30.7	24.5	2.9			
Maize	Cobs	44.7	130.2	65.1	19.5	2.7			
Paddy	Husk	7.2	20.5	4.1	3.3	0.36			
Others	Others	0.52	0.45	0.97	0.25	0.031			
T	Total		151.1	361.2	99.7	12.8			

Talu	Taluk level Residue-wise Data for Mukerian; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	34.3	97.8	146.7	117.3	14.1			
Paddy	Husk	34.3	97.8	19.6	15.6	1.7			
Maize	Stalks	8.8	25.7	51.3	10.3	1.3			
Maize	Cobs	8.8	25.7	12.8	3.8	0.54			
Others	Others	1.2	1.1	2.5	0.63	0.080			
T	Total		124.5	232.9	147.7	17.8			

Taluk	Taluk level Residue-wise Data for Jalandhar-I; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	24.5	82.4	123.6	98.9	11.9			
Paddy	Husk	24.5	82.4	16.5	13.2	1.5			
Maize	Stalks	3.9	11.8	23.7	4.7	0.62			
Maize	Cobs	3.9	11.8	5.9	1.8	0.25			
Others	Others	0.81	0.37	0.92	0.092	0.012			
T	Total 2		94.6	170.6	118.7	14.2			

Taluk	Taluk level Residue-wise Data for Jalandhar-Ii ; 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	36.8	55.2	44.2	5.3		
Maize	Stalks	4.4	13.2	26.4	5.3	0.69		
Paddy	Husk	10.9	36.8	7.4	5.9	0.65		
Maize	Cobs	4.4	13.2	6.6	2.0	0.28		
Others	Others	0.20	0.091	0.23	0.023	0.0030		
T	Total 15		50.1	95.8	57.3	6.9		

Talı	Taluk level Residue-wise Data for Nakodar ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	29.2	98.4	147.6	118.1	14.2		
Paddy	Husk	29.2	98.4	19.7	15.7	1.7		
Maize	Stalks	2.3	6.9	13.8	2.8	0.36		
Maize	Cobs	2.3	6.9	3.4	1.0	0.14		
Others	Others	0.15	0.070	0.17	0.017	0.0022		
T	Total		105.4	184.7	137.6	16.4		

Tal	Taluk level Residue-wise Data for Phillaur ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	60.1	202.3	303.5	242.8	29.1		
Paddy	Husk	60.1	202.3	40.5	32.4	3.6		
Maize	Stalks	3.8	11.6	23.2	4.6	0.60		
Maize	Cobs	3.8	11.6	5.8	1.7	0.24		
Others	Others	0.87	0.41	0.91	0.12	0.015		
Total 64.7		64.7	214.3	373.8	281.6	33.6		

Tal	Taluk level Residue-wise Data for Shahkot ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	7.4	24.9	37.4	29.9	3.6			
Paddy	Husk	7.4	24.9	5.0	4.0	0.44			
Maize	Stalks	1.9	5.8	11.5	2.3	0.30			
Maize	Cobs	1.9	5.8	2.9	0.87	0.12			
Total		9.3	30.7	56.8	37.0	4.4			

Talı	Taluk level Residue-wise Data for Bhulath; Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	2.8	9.8	14.7	11.7	1.4		
Paddy	Husk	2.8	9.8	2.0	1.6	0.17		
Others	Others	0.13	0.45	1.1	0.25	0.033		
Total		3.0	10.2	17.8	13.6	1.6		

Taluk	Taluk level Residue-wise Data for Kapurthala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	48.4	168.1	252.1	201.7	24.2			
Paddy	Husk	48.4	168.1	33.6	26.9	3.0			
Maize	Stalks	1.6	5.5	10.9	2.2	0.28			
Maize	Cobs	1.6	5.5	2.7	0.82	0.11			
Others	Others	0.55	0.24	0.53	0.071	0.0091			
T	Total		173.8	300.0	231.7	27.6			

Tal	Taluk level Residue-wise Data for Phagwara ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	19.4	67.2	100.9	80.7	9.7			
Paddy	Husk	19.4	67.2	13.4	10.8	1.2			
Maize	Stalks	1.0	3.6	7.2	1.4	0.19			
Maize	Cobs	1.0	3.6	1.8	0.54	0.075			
Others	Others	5.00E-06	5.25E-06	1.21E-05	3.20E-06	4.05E-07			
T	otal	20.4	70.8	123.2	93.4	11.1			

Talı	Taluk level Residue-wise Data for Sultanpur Lodhi ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	34.5	119.8	179.7	143.8	17.3			
Paddy	Husk	34.5	119.8	24.0	19.2	2.1			
Maize	Stalks	1.3	4.3	8.6	1.7	0.22			
Maize	Cobs	1.3	4.3	2.1	0.64	0.090			
Others	Others	0.0015	0.0016	0.0036	0.00095	0.00012			
T	otal	35.8	124.1	214.4	165.3	19.7			

Talı	Taluk level Residue-wise Data for Jagraon ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	56.3	219.4	329.1	263.3	31.6			
Paddy	Husk	56.3	219.4	43.9	35.1	3.9			
Maize	Stalks	4.8	16.5	32.9	6.6	0.86			
Maize	Cobs	4.8	16.5	8.2	2.5	0.35			
Others	Others	0.97	0.43	0.54	0.055	0.0071			
Total		62.1	236.3	414.7	307.5	36.7			

Talı	Taluk level Residue-wise Data for Khanna ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	19.5	75.9	113.9	91.1	10.9		
Paddy	Husk	19.5	75.9	15.2	12.1	1.3		
Others	Others	0.16	0.42	1.0	0.22	0.029		
Total		19.6	76.3	130.1	103.5	12.3		

Talı	Taluk level Residue-wise Data for Ludhiana(East); Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	41.7	162.6	244.0	195.2	23.4		
Paddy	Husk	41.7	162.6	32.5	26.0	2.9		
Others	Others	0.71	0.73	1.5	0.29	0.039		
T	otal	42.4	163.4	278.0	221.5	26.3		

Talu	Taluk level Residue-wise Data for Ludhiana(West) ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	28.7	111.9	167.9	134.3	16.1		
Paddy	Husk	28.7	111.9	22.4	17.9	2.0		
Others	Others	0.59	0.26	0.33	0.033	0.0043		
T	otal	29.3	112.2	190.6	152.3	18.1		

Ta	Taluk level Residue-wise Data for Payal; Season: Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	26.2	102.1	153.1	122.5	14.7				
Paddy	Husk	26.2	102.1	20.4	16.3	1.8				
Others	Others	1.7	0.74	0.98	0.098	0.013				
Total		27.9	102.8	174.5	138.9	16.5				

Tal	Taluk level Residue-wise Data for Raikot; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	27.1	105.6	158.4	126.7	15.2			
Paddy	Husk	27.1	105.6	21.1	16.9	1.9			
Others	Others	0.27	0.12	0.15	0.016	0.0020			
Total		27.4	105.7	179.7	143.6	17.1			

Talı	Taluk level Residue-wise Data for Samrala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	35.6	138.8	208.2	166.6	20.0			
Paddy	Husk	35.6	138.8	27.8	22.2	2.4			
Others	Others	0.077	0.053	0.11	0.025	0.0031			
Total		35.7	138.8	236.1	188.8	22.4			

Talu	Taluk level Residue-wise Data for Budhlada ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	9.0	31.9	47.9	38.3	4.6			
Paddy	Husk	9.0	31.9	6.4	5.1	0.56			
Others	Others	0.84	0.95	2.2	0.44	0.057			
Total		9.8	32.9	56.5	43.9	5.2			

Tal	Taluk level Residue-wise Data for Mansa ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	19.7	70.0	105.0	84.0	10.1			
Paddy	Husk	19.7	70.0	14.0	11.2	1.2			
Others	Others	0.70	0.50	1.3	0.20	0.025			
Total		20.4	70.5	120.3	95.4	11.3			

Talul	Taluk level Residue-wise Data for Sardulgarh ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	40.7	144.9	217.4	173.9	20.9			
Paddy	Husk	40.7	144.9	29.0	23.2	2.6			
Others	Others	1.2	1.7	4.1	0.79	0.10			
Total		41.9	146.6	250.5	197.9	23.5			

Taluk 1	Taluk level Residue-wise Data for Bagha Purana ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	8.0	30.6	45.9	36.7	4.4			
Paddy	Husk	8.0	30.6	6.1	4.9	0.54			
Maize	Stalks	0.41	1.1	2.2	0.45	0.058			
Others	Others	0.63	0.33	0.98	0.21	0.029			
Total		9.1	32.0	55.2	42.2	5.0			

	Taluk level Residue-wise Data for Moga; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	104.0	396.1	594.2	475.3	57.0			
Paddy	Husk	104.0	396.1	79.2	63.4	7.0			
Others	Others	1.8	1.2	2.8	0.48	0.064			
Maize	Stalks	0.37	1.0	2.0	0.41	0.053			
Total		106.3	398.3	678.2	539.6	64.1			

Taluk	Taluk level Residue-wise Data for Nihal Singhwala; Season: Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	41.9	159.5	239.3	191.4	23.0		
Paddy	Husk	41.9	159.5	31.9	25.5	2.8		
Others	Others	1.6	1.4	2.9	0.52	0.068		
Total		43.5	161.0	274.2	217.5	25.8		

Taluk	Taluk level Residue-wise Data for Giddarbaha ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	11.1	40.7	61.0	48.8	5.9			
Paddy	Husk	11.1	40.7	8.1	6.5	0.72			
Others	Others	0.82	0.58	1.5	0.22	0.028			
T	otal	11.9	41.3	70.6	55.5	6.6			

Tal	Taluk level Residue-wise Data for Malout ; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	36.2	133.1	199.7	159.8	19.2				
Paddy	Husk	36.2	133.1	26.6	21.3	2.3				
Maize	Stalks	0.45	1.3	2.6	0.51	0.066				
Others	Others	1.3	0.67	2.3	0.41	0.056				
Total		38.0	135.1	231.2	182.0	21.6				

Talı	Taluk level Residue-wise Data for Muktsar; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	19.0	69.6	104.4	83.5	10.0			
Paddy	Husk	19.0	69.6	13.9	11.1	1.2			
Others	Others	1.6	1.1	1.5	0.17	0.022			
Total		20.6	70.7	119.9	94.9	11.3			

Talu	Taluk level Residue-wise Data for Balachaur ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	5.9	18.8	28.2	22.6	2.7		
Maize	Stalks	5.2	14.7	29.5	5.9	0.77		
Paddy	Husk	5.9	18.8	3.8	3.0	0.33		
Maize	Cobs	5.2	14.7	7.4	2.2	0.31		
Others	Others	0.090	0.058	0.10	0.022	0.0028		
Total 11			33.6	68.9	33.7	4.1		

Taluk	Taluk level Residue-wise Data for Nawanshahr ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	39.1	123.9	185.8	148.7	17.8		
Paddy	Husk	39.1	123.9	24.8	19.8	2.2		
Maize	Stalks	13.0	36.7	73.5	14.7	1.9		
Maize	Cobs	13.0	36.7	18.4	5.5	0.77		
Others	Others	0.10	0.035	0.087	0.0087	0.0011		
T	Total		160.6	302.5	188.7	22.7		

Talu	Taluk level Residue-wise Data for Dera Bassi ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	32.8	118.8	178.2	142.5	17.1			
Paddy	Husk	32.8	118.8	23.8	19.0	2.1			
Others	Others	0.22	0.50	1.2	0.27	0.036			
T	Total		119.3	203.2	161.8	19.2			

Tal	Taluk level Residue-wise Data for Nabha ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	33.0	119.5	179.3	143.4	17.2			
Paddy	Husk	33.0	119.5	23.9	19.1	2.1			
Others	Others	0.10	0.24	0.59	0.13	0.017			
Total		33.1	119.8	203.8	162.7	19.3			

Taluk level Residue-wise Data for Patiala; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	90.1	326.2	489.3	391.4	47.0		
Paddy	Husk	90.1	326.2	65.2	52.2	5.7		
Maize	Stalks	0.46	1.1	2.1	0.42	0.055		
Others	Others	0	0	0.53	0.16	0.022		
Total 9		90.6	327.2	557.2	444.2	52.8		

Talı	Taluk level Residue-wise Data for Rajpura ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	80.0	289.6	434.3	347.5	41.7			
Paddy	Husk	80.0	289.6	57.9	46.3	5.1			
Maize	Stalks	1.2	2.7	5.4	1.1	0.14			
Maize	Cobs	1.2	2.7	1.3	0.40	0.056			
Others	Others	0.028	0.018	0.023	0.0023	0.00030			
T	Total		292.3	499.0	395.3	47.0			

Tal	Taluk level Residue-wise Data for Samana ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	15.0	54.4	81.7	65.3	7.8		
Paddy	Husk	15.0	54.4	10.9	8.7	0.96		
Others	Others	0.082	0.19	0.47	0.10	0.014		
Total		15.1	54.6	93.0	74.1	8.8		

Talu	Taluk level Residue-wise Data for Anandpur Sahib ; Season : Kharif							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	14.9	47.7	71.5	57.2	6.9		
Maize	Stalks	8.0	18.2	36.4	7.3	0.95		
Paddy	Husk	14.9	47.7	9.5	7.6	0.84		
Maize	Cobs	8.0	18.2	9.1	2.7	0.38		
Others	Others	0.49	0.39	1.0	0.17	0.022		
T	otal	23.4	66.3	127.6	75.0	9.1		

Tal	Taluk level Residue-wise Data for Kharar ; Season : Kharif									
Crop	Residue Arc		Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	10.1	32.3	48.4	38.7	4.6				
Maize	Stalks	7.7	17.4	34.8	7.0	0.91				
Paddy	Husk	10.1	32.3	6.5	5.2	0.57				
Maize	Cobs	7.7	17.4	8.7	2.6	0.37				
Others	Others	0.91	0.62	1.6	0.24	0.031				
T	otal	18.7	50.3	100.0	53.7	6.5				

Talu	Taluk level Residue-wise Data for Rupnagar ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	24.4	77.9	116.8	93.4	11.2			
Paddy	Husk	24.4	77.9	15.6	12.5	1.4			
Maize	Stalks	11.3	25.6	51.3	10.3	1.3			
Maize	Cobs	11.3	25.6	12.8	3.8	0.54			
Total		35.7	103.5	196.5	120.0	14.5			

Taluk	Taluk level Residue-wise Data for S.A.S.Nagar(Mohali) ; Season : Kharif								
Crop Residue Area (kHa) Crop Production (kT/Yr) Biomass Surplus (kT/Yr)					Power Potential (MWe)				
Paddy	Straw	2.0	6.4	9.7	7.7	0.93			
Maize	Stalks	2.2	5.0	10.1	2.0	0.26			
Paddy	Husk	2.0	6.4	1.3	1.0	0.11			
Maize	Cobs	2.2	5.0	2.5	0.76	0.11			
Total 4.2 11.5 23.6 11.5						1.4			

T	Taluk level Residue-wise Data for Barnala ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	109.0	425.2	637.8	510.2	61.2			
Paddy	Husk	109.0	425.2	85.0	68.0	7.5			
Others	Others	3.8	3.2	6.9	1.1	0.14			
T	otal	112.8	428.4	729.7	579.4	68.9			

	Taluk level Residue-wise Data for Dhuri ; Season : Kharif									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	25.3	98.8	148.1	118.5	14.2				
Paddy	Husk	25.3	98.8	19.8	15.8	1.7				
Maize	Stalks	2.0	5.4	10.8	2.2	0.28				
Maize	Cobs	2.0	5.4	2.7	0.81	0.11				
Others	Others	0.0051	0.0040	0.0093	0.0025	0.00031				
T	otal	27.3	104.2	181.4	137.3	16.4				

Talul	Taluk level Residue-wise Data for Malerkotla; Season: Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	42.1	164.4	246.6	197.3	23.7			
Paddy	Husk	42.1	164.4	32.9	26.3	2.9			
Others	Others	0.14	0.12	0.31	0.061	0.0077			
Total		42.3	164.5	279.8	223.7	26.6			

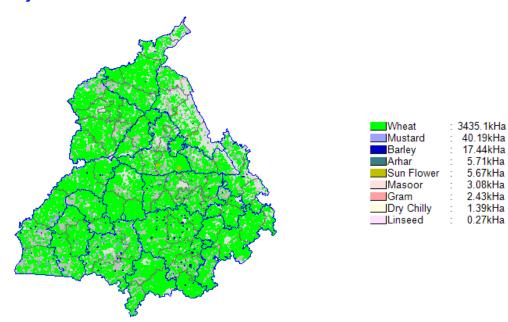
Tal	Taluk level Residue-wise Data for Moonak ; Season : Kharif								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	60.1	234.6	351.8	281.5	33.8			
Paddy	Husk	60.1	234.6	46.9	37.5	4.1			
T	Total 60.1 234.6 398.8 319.0 3'								

Talı	Taluk level Residue-wise Data for Sangrur; Season: Kharif								
Crop	rop Residue Ar		Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	58.7	228.9	343.3	274.7	33.0			
Paddy	Husk	58.7	228.9	45.8	36.6	4.0			
Others	Others	1.7	1.2	1.6	0.16	0.020			
Total		60.4	230.1	390.7	311.4	37.0			

Tal	Taluk level Residue-wise Data for Sunam ; Season : Kharif								
Crop	Crop Residue		Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	60.5	236.2	354.3	283.4	34.0			
Paddy	Husk	60.5	236.2	47.2	37.8	4.2			
Others	Others	0.50	0.46	0.78	0.12	0.016			
Total		61.0	236.6	402.3	321.3	38.2			

Rabi





State Level Residue Wise

	State level Residue-wise Data for Punjab; Season : Rabi									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	3435.1	15568.9	23353.3	4670.7	607.2				
Wheat	Pod	3435.1	15568.9	4670.7	2335.3	326.9				
Mustard	Stalks	40.2	49.0	88.1	44.1	5.7				
Mustard	Husk	40.2	49.0	44.1	41.9	5.0				
Barley	Stalks	17.4	60.5	78.7	7.9	1.0				
Arhar	Stalks	5.7	4.8	11.9	3.6	0.46				
Sunflower	Stalks	5.7	8.1	16.3	3.3	0.42				
Gram	Stalks	2.4	1.9	2.0	1.8	0.24				
Others	Others	4.8	3.2	6.7	0.67	0.086				
Tot	Total		15696.3	28271.8	7109.1	947.1				

State Level District Wise

State leve	State level District-wise Data for Punjab; Season: Rabi									
District	Area (kHa)	Crop	Biomass Generation (kT/Yr)	Biomass	Power Potential (MWe)					
Sangrur	397.9	1914.7	3434.6	854.0	113.9					
Firozpur	395.8	1679.7	3034.7	773.7	102.9					
Amritsar	369.5	1706.1	3073.9	771.4	102.8					
Patiala	270.0	1334.8	2402.6	600.6	80.1					
Ludhiana	265.1	1321.8	2380.7	597.4	79.6					
Gurdaspur	222.5	1017.8	1834.6	462.5	61.6					
Bathinda	254.3	966.9	1744.0	444.3	59.1					
Muktsar	202.8	846.3	1521.8	382.7	51.0					
Jalandhar	173.5	794.5	1434.1	361.4	48.1					
Moga	167.0	778.9	1402.0	350.5	46.7					
Mansa	168.7	675.3	1217.8	307.2	40.9					
Kapurthala	116.1	541.3	975.7	244.9	32.6					
Hoshiarpur	144.9	511.2	922.6	233.2	31.1					
Faridkot	113.7	503.8	907.7	228.8	30.5					
Fatehgarh Sahib	85.9	421.9	757.7	188.8	25.2					
Rupnagar	92.2	356.7	642.7	161.4	21.5					
Nawanshahr	71.3	324.7	584.7	146.4	19.5					
Total	3511.3	15696.3	28271.8	7109.1	947.1					

State Level Taluk Wise

	State level Taluk-wise Data for Punjab ; Season : Rabi									
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sangrur	Barnala	124.2	597.7	1072.6	266.9	35.6				
Gurdaspur	Gurdaspur	109.4	503.3	906.7	228.1	30.4				
Firozpur	Firozpur	115.0	493.5	889.9	224.6	29.9				
Patiala	Patiala	94.9	469.1	844.4	211.1	28.1				
Amritsar	Tarn-Taran	91.1	425.0	765.0	191.3	25.5				
Amritsar	Patti	89.3	416.7	749.9	187.5	25.0				
Firozpur	Jalalabad	93.0	396.2	715.5	181.9	24.2				

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Sangrur	Sangrur	79.6	382.2	684.5	169.8	22.6
Bathinda	Bathinda	95.9	363.3	654.4	166.6	22.2
Patiala	Rajpura	74.0	365.6	658.1	164.5	21.9
Faridkot	Faridkot	80.1	354.5	638.8	161.2	21.5
Muktsar	Malout	83.9	350.5	631.3	159.3	21.2
Firozpur	Abohar	76.6	315.4	573.0	150.2	19.9
Ludhiana	Jagraon	66.0	329.5	593.9	149.0	19.9
Bathinda	Talwandi Sabo	83.5	319.4	575.7	145.8	19.4
Muktsar	Giddarbaha	77.5	322.9	579.7	145.2	19.3
Mansa	Mansa	76.6	307.0	553.5	139.5	18.6
Sangrur	Moonak	61.2	295.2	530.9	132.6	17.7
Moga	Bagha Purana	62.8	293.0	527.3	131.8	17.6
Bathinda	Rampura Phul	74.9	284.2	513.9	131.8	17.5
Mansa	Budhlada	71.8	288.5	520.0	130.8	17.4
Amritsar	Ajnala	61.8	282.2	509.6	129.1	17.2
Jalandhar	Phillaur	60.3	273.4	493.2	123.4	16.4
Moga	Moga	55.4	258.6	465.5	116.4	15.5
Sangrur	Dhuri	52.5	252.4	452.7	112.5	15.0
Sangrur	Malerkotla	52.1	250.8	450.0	111.9	14.9
Kapurthala	Kapurthala	51.7	240.3	433.2	108.6	14.5
Firozpur	Zira	55.7	240.8	433.5	108.6	14.5
Firozpur	Fazilka	55.6	233.8	422.7	108.4	14.4
Fatehgarh Sahib	Fatehgarh Sahib	47.9	235.6	423.7	105.7	14.1
Ludhiana	Ludhiana(East)	46.5	232.5	418.8	105.2	14.0
Gurdaspur	Batala	49.7	226.6	408.7	103.0	13.7
Moga	Nihal Singhwala	48.7	227.3	409.2	102.3	13.6
Patiala	Samana	44.1	218.2	392.8	98.2	13.1
Ludhiana	Samrala	41.7	209.4	376.8	94.4	12.6
Nawanshahr	Nawanshahr	45.2	205.9	370.7	92.8	12.4
Amritsar	Amritsar-Ii	44.5	201.9	364.5	92.1	12.3
Hoshiarpur	Hoshiarpur	54.8	195.9	353.2	88.9	11.8
Ludhiana	Payal	35.9	180.2	324.3	81.3	10.8
Amritsar	Baba Bakala	39.3	180.0	324.2	81.1	10.8
Patiala	Nabha	36.1	178.3	321.0		10.7
Muktsar	Muktsar	41.5	172.9	310.8		10.4
Jalandhar	Nakodar	35.6		297.3		10.0
Amritsar	Amritsar-I	35.7	165.0	297.4		9.9

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Ludhiana	Ludhiana(West)	33.1	162.0	291.6	73.5	9.8
Jalandhar	Jalandhar-I	33.8	152.4	276.3	70.5	9.4
Rupnagar	Rupnagar	39.9	152.5	274.7	69.0	9.2
Faridkot	Jaitu	33.6	149.2	268.9	67.6	9.0
Jalandhar	Shahkot	31.5	147.4	265.4	66.4	8.8
Ludhiana	Raikot	29.6	146.9	264.6	66.2	8.8
Hoshiarpur	Mukerian	39.6	139.2	251.3	63.9	8.5
Gurdaspur	Pathankot	30.4	135.8	245.0	62.5	8.3
Gurdaspur	Dera Baba Nanak	29.4	135.7	244.5	61.4	8.2
Sangrur	Sunam	28.4	136.4	243.8	60.3	8.0
Hoshiarpur	Dasua	33.3	118.0	213.2	54.1	7.2
Nawanshahr	Balachaur	26.1	118.8	214.0	53.6	7.1
Kapurthala	Phagwara	24.0	111.6	201.1	50.3	6.7
Patiala	Dera Bassi	20.9	103.5	186.3	46.6	6.2
Fatehgarh Sahib	Amloh	20.2	99.1	177.8	44.2	5.9
Kapurthala	Sultanpur Lodhi	20.6	96.1	173.3	43.7	5.8
Kapurthala	Bhulath	19.9	93.3	168.1	42.3	5.6
Rupnagar	Anandpur Sahib	22.0	86.0	155.0	38.9	5.2
Mansa	Sardulgarh	20.2	79.8	144.3	36.9	4.9
Fatehgarh Sahib	Bassi Pathana	15.5	75.9	136.3	34.0	4.5
Rupnagar	Kharar	19.0	74.0	133.4	33.5	4.5
Ludhiana	Khanna	12.4	61.4	110.6	27.9	3.7
Hoshiarpur	Garhshankar	17.1	58.0	104.9	26.3	3.5
Jalandhar	Jalandhar-Ii	12.2	56.3	101.9	26.0	3.5
Rupnagar	S.A.S.Nagar(Mohali)	11.4	44.2	79.6	20.0	2.7
Amritsar	Khadur Sahib	7.6	35.2	63.3	15.8	2.1
Gurdaspur	Dhar Kalan	3.6	16.5	29.6	7.4	0.99
Fatehgarh Sahib	Khamanon	2.3	11.2	19.9	4.8	0.64
,	Fotal	3511.3	15696.3	28271.8	7109.1	947.1

District Level Residue Wise

District level Residue-wise Data for Amritsar; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	363.0	1700.0	2550.1	510.0	66.3		
Wheat	Pod	363.0	1700.0	510.0	255.0	35.7		
Mustard	Stalks	2.6	2.7	4.8	2.4	0.31		
Mustard	Husk	2.6	2.7	2.4	2.3	0.27		
Arhar	Stalks	1.4	1.2	3.0	0.90	0.12		
Gram	Stalks	0.51	0.44	0.49	0.44	0.057		
Others	Others	1.9	1.7	3.2	0.36	0.047		
Total		369.5	1706.1	3073.9	771.4	102.8		

Di	District level Residue-wise Data for Bathinda; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	243.0	949.1	1423.6	284.7	37.0			
Wheat	Pod	243.0	949.1	284.7	142.4	19.9			
Mustard	Stalks	7.3	8.9	16.1	8.0	1.0			
Mustard	Husk	7.3	8.9	8.0	7.6	0.92			
Barley	Stalks	3.0	8.5	11.0	1.1	0.14			
Others	Others	0.85	0.46	0.58	0.40	0.052			
To	Total		966.9	1744.0	444.3	59.1			

Di	District level Residue-wise Data for Faridkot; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	112.0	500.3	750.5	150.1	19.5			
Wheat	Pod	112.0	500.3	150.1	75.0	10.5			
Mustard	Stalks	1.2	1.9	3.4	1.7	0.22			
Mustard	Husk	1.2	1.9	1.7	1.6	0.20			
Others	Others	0.55	1.5	2.0	0.28	0.037			
To	Total		503.8	907.7	228.8	30.5			

Distr	District level Residue-wise Data for Fatehgarh Sahib; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	85.0	418.7	628.0	125.6	16.3				
Wheat	Pod	85.0	418.7	125.6	62.8	8.8				
Barley	Stalks	0.94	3.2	4.2	0.42	0.054				
T	otal	85.9	421.9	757.7	188.8	25.2				

Di	District level Residue-wise Data for Firozpur; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	383.1	1661.0	2491.6	498.3	64.8				
Wheat	Pod	383.1	1661.0	498.3	249.2	34.9				
Mustard	Stalks	11.4	14.7	26.4	13.2	1.7				
Mustard	Husk	11.4	14.7	13.2	12.5	1.5				
Barley	Stalks	1.3	4.0	5.2	0.52	0.068				
Total		395.8	1679.7	3034.7	773.7	102.9				

Dis	District level Residue-wise Data for Gurdaspur; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	217.2	1012.1	1518.1	303.6	39.5			
Wheat	Pod	217.2	1012.1	303.6	151.8	21.3			
Mustard	Stalks	3.5	3.7	6.6	3.3	0.43			
Mustard	Husk	3.5	3.7	3.3	3.1	0.38			
Others	Others	1.8	2.1	3.0	0.61	0.079			
Total		222.5	1017.8	1834.6	462.5	61.6			

Dist	District level Residue-wise Data for Hoshiarpur; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	139.9	505.8	758.6	151.7	19.7			
Wheat	Pod	139.9	505.8	151.7	75.9	10.6			
Mustard	Stalks	2.5	2.5	4.6	2.3	0.30			
Mustard	Husk	2.5	2.5	2.3	2.2	0.26			
Sunflower	Stalks	1.2	2.0	3.9	0.78	0.10			
Others	Others	1.2	0.94	1.5	0.37	0.048			
Tot	al	144.9	511.2	922.6	233.2	31.1			

District level Residue-wise Data for Jalandhar; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	167.2	786.4	1179.6	235.9	30.7		
Wheat	Pod	167.2	786.4	235.9	118.0	16.5		
Mustard	Stalks	2.1	3.0	5.3	2.7	0.35		
Mustard	Husk	2.1	3.0	2.7	2.5	0.30		
Sunflower	Stalks	2.6	3.6	7.1	1.4	0.19		
Arhar	Stalks	1.0	0.92	2.3	0.69	0.089		
Others	Others	0.55	0.56	1.1	0.18	0.023		
Tot	al	173.5	794.5	1434.1	361.4	48.1		

District level Residue-wise Data for Kapurthala; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	114.0	538.3	807.5	161.5	21.0		
Wheat	Pod	114.0	538.3	161.5	80.7	11.3		
Mustard	Stalks	0.82	1.1	1.9	0.95	0.12		
Mustard	Husk	0.82	1.1	0.95	0.90	0.11		
Sunflower	Stalks	1.3	1.9	3.8	0.76	0.099		
Total		116.1	541.3	975.7	244.9	32.6		

Di	District level Residue-wise Data for Ludhiana; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	258.2	1309.7	1964.5	392.9	51.1			
Wheat	Pod	258.2	1309.7	392.9	196.5	27.5			
Mustard	Stalks	2.3	3.2	5.7	2.9	0.37			
Mustard	Husk	2.3	3.2	2.9	2.7	0.33			
Arhar	Stalks	2.3	1.9	4.6	1.4	0.18			
Barley	Stalks	2.0	6.7	8.7	0.87	0.11			
Others	Others	0.29	0.40	1.3	0.21	0.027			
To	Total		1321.8	2380.7	597.4	79.6			

I	District level Residue-wise Data for Mansa; Season: Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	166.3	672.6	1008.8	201.8	26.2		
Wheat	Pod	166.3	672.6	201.8	100.9	14.1		
Mustard	Stalks	2.4	2.6	4.7	2.3	0.30		
Mustard	Husk	2.4	2.6	2.3	2.2	0.27		
Others	Others	0.055	0.14	0.18	0.018	0.0024		
To	tal	168.7	675.3	1217.8	307.2	40.9		

	District level Residue-wise Data for Moga; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	167.0	778.9	1168.4	233.7	30.4		
Wheat	Pod	167.0	778.9	233.7	116.8	16.4		
Others	Others	0.00025	0.00034	0.00092	0.00060	7.49E-05		
T	otal	167.0	778.9	1402.0	350.5	46.7		

D	District level Residue-wise Data for Muktsar; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	196.5	832.7	1249.1	249.8	32.5		
Wheat	Pod	196.5	832.7	249.8	124.9	17.5		
Mustard	Stalks	2.6	3.6	6.4	3.2	0.42		
Mustard	Husk	2.6	3.6	3.2	3.0	0.37		
Barley	Stalks	3.0	9.3	12.2	1.2	0.16		
Others	Others	0.73	0.65	1.1	0.48	0.063		
To	tal	202.8	846.3	1521.8	382.7	51.0		

Dis	District level Residue-wise Data for Nawanshahr; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	71.1	324.5	486.8	97.4	12.7		
Wheat	Pod	71.1	324.5	97.4	48.7	6.8		
Others	Others	0.18	0.19	0.51	0.33	0.041		
Total		71.3	324.7	584.7	146.4	19.5		

District level Residue-wise Data for Patiala; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Wheat	Stalks	270.0	1334.7	2002.1	400.4	52.1	
Wheat	Pod	270.0	1334.7	400.4	200.2	28.0	
Others	Others	0.0054	0.023	0.030	0.0030	0.00040	
To	Total 270.0 1334.8 2402.6 600.6 80.1						

Dis	District level Residue-wise Data for Rupnagar; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	89.6	353.3	529.9	106.0	13.8		
Wheat	Pod	89.6	353.3	106.0	53.0	7.4		
Mustard	Stalks	1.1	1.0	1.8	0.90	0.12		
Mustard	Husk	1.1	1.0	0.90	0.86	0.10		
Others	Others	1.5	2.5	4.1	0.64	0.083		
To	tal	92.2	356.7	642.7	161.4	21.5		

Ι	District level Residue-wise Data for Sangrur; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	392.1	1890.7	2836.1	567.2	73.7			
Wheat	Pod	392.1	1890.7	567.2	283.6	39.7			
Barley	Stalks	5.8	23.9	31.1	3.1	0.40			
Others	Others	0.057	0.061	0.17	0.092	0.012			
T	otal	397.9	1914.7	3434.6	854.0	113.9			

District Level Taluk Wise

Distric	DistrictLevel Taluk-wise Data for Amritsar; Season: Rabi							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Tarn-Taran	91.1	425.0	765.0	191.3	25.5			
Patti	89.3	416.7	749.9	187.5	25.0			
Ajnala	61.8	282.2	509.6	129.1	17.2			
Amritsar-Ii	44.5	201.9	364.5	92.1	12.3			
Baba Bakala	39.3	180.0	324.2	81.1	10.8			
Amritsar-I	35.7	165.0	297.4	74.4	9.9			
Khadur Sahib	7.6	35.2	63.3	15.8	2.1			
Total	369.5	1706.1	3073.9	771.4	102.8			

DistrictLevel Taluk-wise Data for Bathinda ; Season : Rabi							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Bathinda	95.9	363.3	654.4	166.6	22.2		
Talwandi Sabo	83.5	319.4	575.7	145.8	19.4		
Rampura Phul	74.9	284.2	513.9	131.8	17.5		
Total	254.3	966.9	1744.0	444.3	59.1		

Dis	DistrictLevel Taluk-wise Data for Faridkot; Season: Rabi							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Faridkot	80.1	354.5	638.8	161.2	21.5			
Jaitu	33.6	149.2	268.9	67.6	9.0			
Total	113.7	503.8	907.7	228.8	30.5			

DistrictLevel Taluk-wise Data for Fatehgarh Sahib ; Season : Rabi							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Fatehgarh Sahib	47.9	235.6	423.7	105.7	14.1		
Amloh	20.2	99.1	177.8	44.2	5.9		
Bassi Pathana	15.5	75.9	136.3	34.0	4.5		
Khamanon	2.3	11.2	19.9	4.8	0.64		
Total	85.9	421.9	757.7	188.8	25.2		

Dist	DistrictLevel Taluk-wise Data for Firozpur; Season: Rabi							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Firozpur	115.0	493.5	889.9	224.6	29.9			
Jalalabad	93.0	396.2	715.5	181.9	24.2			
Abohar	76.6	315.4	573.0	150.2	19.9			
Zira	55.7	240.8	433.5	108.6	14.5			
Fazilka	55.6	233.8	422.7	108.4	14.4			
Total	395.8	1679.7	3034.7	773.7	102.9			

DistrictLevel Taluk-wise Data for Gurdaspur; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Gurdaspur	109.4	503.3	906.7	228.1	30.4				
Batala	49.7	226.6	408.7	103.0	13.7				
Pathankot	30.4	135.8	245.0	62.5	8.3				
Dera Baba Nanak	29.4	135.7	244.5	61.4	8.2				
Dhar Kalan	3.6	16.5	29.6	7.4	0.99				
Total	222.5	1017.8	1834.6	462.5	61.6				

DistrictLevel Taluk-wise Data for Hoshiarpur ; Season : Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Hoshiarpur	54.8	195.9	353.2	88.9	11.8				
Mukerian	39.6	139.2	251.3	63.9	8.5				
Dasua	33.3	118.0	213.2	54.1	7.2				
Garhshankar	17.1	58.0	104.9	26.3	3.5				
Total	144.9	511.2	922.6	233.2	31.1				

DistrictLevel Taluk-wise Data for Jalandhar ; Season : Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Phillaur	60.3	273.4	493.2	123.4	16.4				
Nakodar	35.6	164.9	297.3	75.1	10.0				
Jalandhar-I	33.8	152.4	276.3	70.5	9.4				
Shahkot	31.5	147.4	265.4	66.4	8.8				
Jalandhar-Ii	12.2	56.3	101.9	26.0	3.5				
Total	173.5	794.5	1434.1	361.4	48.1				

DistrictLevel Taluk-wise Data for Kapurthala; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Kapurthala	51.7	240.3	433.2	108.6	14.5				
Phagwara	24.0	111.6	201.1	50.3	6.7				
Sultanpur Lodhi	20.6	96.1	173.3	43.7	5.8				
Bhulath	19.9	93.3	168.1	42.3	5.6				
Total	116.1	541.3	975.7	244.9	32.6				

DistrictLevel Taluk-wise Data for Ludhiana ; Season : Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Jagraon	66.0	329.5	593.9	149.0	19.9				
Ludhiana(East)	46.5	232.5	418.8	105.2	14.0				
Samrala	41.7	209.4	376.8	94.4	12.6				
Payal	35.9	180.2	324.3	81.3	10.8				
Ludhiana(West)	33.1	162.0	291.6	73.5	9.8				
Raikot	29.6	146.9	264.6	66.2	8.8				
Khanna	12.4	61.4	110.6	27.9	3.7				
Total	265.1	1321.8	2380.7	597.4	79.6				

Dis	DistrictLevel Taluk-wise Data for Mansa; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Mansa	76.6	307.0	553.5	139.5	18.6					
Budhlada	71.8	288.5	520.0	130.8	17.4					
Sardulgarh	20.2	79.8	144.3	36.9	4.9					
Total	168.7	675.3	1217.8	307.2	40.9					

DistrictLevel Taluk-wise Data for Moga; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Bagha Purana	62.8	293.0	527.3	131.8	17.6				
Moga	55.4	258.6	465.5	116.4	15.5				
Nihal Singhwala	48.7	227.3	409.2	102.3	13.6				
Total	167.0	778.9	1402.0	350.5	46.7				

DistrictLevel Taluk-wise Data for Muktsar ; Season : Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Malout	83.9	350.5	631.3	159.3	21.2				
Giddarbaha	77.5	322.9	579.7	145.2	19.3				
Muktsar	41.5	172.9	310.8	78.2	10.4				
Total	202.8	846.3	1521.8	382.7	51.0				

DistrictLevel Taluk-wise Data for Nawanshahr ; Season : Rabi								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Nawanshahr	45.2	205.9	370.7	92.8	12.4			
Balachaur	26.1	118.8	214.0	53.6	7.1			
Total	71.3	324.7	584.7	146.4	19.5			

Dis	DistrictLevel Taluk-wise Data for Patiala ; Season : Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Patiala	94.9	469.1	844.4	211.1	28.1					
Rajpura	74.0	365.6	658.1	164.5	21.9					
Samana	44.1	218.2	392.8	98.2	13.1					
Nabha	36.1	178.3	321.0	80.2	10.7					
Dera Bassi	20.9	103.5	186.3	46.6	6.2					
Total	270.0	1334.8	2402.6	600.6	80.1					

DistrictLevel Taluk-wise Data for Rupnagar; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Rupnagar	39.9	152.5	274.7	69.0	9.2				
Anandpur Sahib	22.0	86.0	155.0	38.9	5.2				
Kharar	19.0	74.0	133.4	33.5	4.5				
S.A.S.Nagar(Mohali)	11.4	44.2	79.6	20.0	2.7				
Total	92.2	356.7	642.7	161.4	21.5				

DistrictLevel Taluk-wise Data for Sangrur; Season: Rabi									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Barnala	124.2	597.7	1072.6	266.9	35.6				
Sangrur	79.6	382.2	684.5	169.8	22.6				
Moonak	61.2	295.2	530.9	132.6	17.7				
Dhuri	52.5	252.4	452.7	112.5	15.0				
Malerkotla	52.1	250.8	450.0	111.9	14.9				
Sunam	28.4	136.4	243.8	60.3	8.0				
Total	397.9	1914.7	3434.6	854.0	113.9				

Taluk Level Residue Wise

Ta	Taluk level Residue-wise Data for Ajnala ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	59.9	280.3	420.4	84.1	10.9			
Wheat	Pod	59.9	280.3	84.1	42.0	5.9			
Mustard	Stalks	1.5	1.5	2.7	1.3	0.17			
Mustard	Husk	1.5	1.5	1.3	1.3	0.15			
Others	Others	0.53	0.45	1.1	0.35	0.045			
To	Total		282.2	509.6	129.1	17.2			

Talı	Taluk level Residue-wise Data for Amritsar-I; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	35.1	164.3	246.5	49.3	6.4			
Wheat	Pod	35.1	164.3	49.3	24.7	3.5			
Others	Others	0.66	0.71	1.6	0.44	0.058			
T	otal	35.7	165.0	297.4	74.4	9.9			

Talul	Taluk level Residue-wise Data for Amritsar-Ii ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	42.8	200.2	300.3	60.1	7.8			
Wheat	Pod	42.8	200.2	60.1	30.0	4.2			
Mustard	Stalks	0.97	1.00	1.8	0.90	0.12			
Mustard	Husk	0.97	1.00	0.90	0.85	0.10			
Others	Others	0.77	0.67	1.4	0.30	0.038			
To	Total		201.9	364.5	92.1	12.3			

Talu	Taluk level Residue-wise Data for Baba Bakala ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	38.3	179.2	268.8	53.8	7.0			
Wheat	Pod	38.3	179.2	53.8	26.9	3.8			
Others	Others	1.0	0.84	1.7	0.50	0.063			
T	otal	39.3	180.0	324.2	81.1	10.8			

Taluk	Taluk level Residue-wise Data for Khadur Sahib ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	7.5	35.1	52.6	10.5	1.4		
Wheat	Pod	7.5	35.1	10.5	5.3	0.74		
Others	Others	0.12	0.11	0.14	0.057	0.0074		
T	otal	7.6	35.2	63.3	15.8	2.1		

Τ	Taluk level Residue-wise Data for Patti ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	88.9	416.3	624.5	124.9	16.2			
Wheat	Pod	88.9	416.3	124.9	62.4	8.7			
Others	Others	0.43	0.34	0.50	0.13	0.017			
T	otal	89.3	416.7	749.9	187.5	25.0			

Talu	Taluk level Residue-wise Data for Tarn-Taran ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	90.7	424.6	636.9	127.4	16.6			
Wheat	Pod	90.7	424.6	127.4	63.7	8.9			
Others	Others	0.47	0.44	0.73	0.25	0.032			
T	Total		425.0	765.0	191.3	25.5			

Talu	Taluk level Residue-wise Data for Bathinda; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	90.6	353.8	530.8	106.2	13.8			
Wheat	Pod	90.6	353.8	106.2	53.1	7.4			
Mustard	Stalks	3.1	3.7	6.7	3.4	0.44			
Mustard	Husk	3.1	3.7	3.4	3.2	0.38			
Barley	Stalks	2.0	5.6	7.2	0.72	0.094			
Others	Others	0.27	0.14	0.18	0.12	0.015			
To	tal	95.9	363.3	654.4	166.6	22.2			

Taluk l	Taluk level Residue-wise Data for Rampura Phul ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	71.6	279.7	419.6	83.9	10.9		
Wheat	Pod	71.6	279.7	83.9	42.0	5.9		
Mustard	Stalks	2.7	3.3	5.9	3.0	0.38		
Mustard	Husk	2.7	3.3	3.0	2.8	0.34		
Others	Others	0.54	1.2	1.6	0.20	0.026		
Total		74.9	284.2	513.9	131.8	17.5		

Taluk level Residue-wise Data for Talwandi Sabo ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	80.8	315.5	473.3	94.7	12.3		
Wheat	Pod	80.8	315.5	94.7	47.3	6.6		
Mustard	Stalks	1.6	1.9	3.5	1.7	0.22		
Mustard	Husk	1.6	1.9	1.7	1.6	0.20		
Others	Others	1.1	2.0	2.6	0.46	0.060		
Total 83.5		319.4	575.7	145.8	19.4			

Talı	Taluk level Residue-wise Data for Faridkot ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	78.7	351.6	527.4	105.5	13.7			
Wheat	Pod	78.7	351.6	105.5	52.7	7.4			
Mustard	Stalks	0.97	1.5	2.8	1.4	0.18			
Mustard	Husk	0.97	1.5	1.4	1.3	0.16			
Others	Others	0.48	1.4	1.8	0.23	0.030			
Total 80		80.1	354.5	638.8	161.2	21.5			

T	Taluk level Residue-wise Data for Jaitu; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	33.3	148.7	223.0	44.6	5.8			
Wheat	Pod	33.3	148.7	44.6	22.3	3.1			
Others	Others	0.31	0.55	1.2	0.70	0.088			
T	Total		149.2	268.9	67.6	9.0			

Ta	Taluk level Residue-wise Data for Amloh; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	19.9	98.0	147.0	29.4	3.8				
Wheat	Pod	19.9	98.0	29.4	14.7	2.1				
Others	Others	0.33	1.1	1.5	0.15	0.019				
Total		20.2	99.1	177.8	44.2	5.9				

Taluk	Taluk level Residue-wise Data for Bassi Pathana ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	15.3	75.4	113.1	22.6	2.9				
Wheat	Pod	15.3	75.4	22.6	11.3	1.6				
Others	Others	0.14	0.48	0.62	0.062	0.0081				
Total		15.5	75.9	136.3	34.0	4.5				

Talu	Taluk level Residue-wise Data for Fatehgarh Sahib ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	47.7	234.7	352.1	70.4	9.2			
Wheat	Pod	47.7	234.7	70.4	35.2	4.9			
Others	Others	0.28	0.95	1.2	0.12	0.016			
Te	otal	47.9	235.6	423.7	105.7	14.1			

Talu	Taluk level Residue-wise Data for Khamanon ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	2.1	10.6	15.9	3.2	0.41				
Wheat	Pod	2.1	10.6	3.2	1.6	0.22				
Others	Others	0.19	0.64	0.84	0.084	0.011				
Total		2.3	11.2	19.9	4.8	0.64				

Tal	Taluk level Residue-wise Data for Abohar; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	70.8	307.2	460.8	92.2	12.0				
Wheat	Pod	70.8	307.2	92.2	46.1	6.5				
Mustard	Stalks	5.2	6.7	12.1	6.0	0.79				
Mustard	Husk	5.2	6.7	6.0	5.7	0.69				
Others	Others	0.48	1.5	1.9	0.19	0.025				
To	Total		315.4	573.0	150.2	19.9				

Taluk level Residue-wise Data for Fazilka; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	53.0	229.8	344.6	68.9	9.0			
Wheat	Pod	53.0	229.8	68.9	34.5	4.8			
Mustard	Stalks	2.1	2.8	5.0	2.5	0.32			
Mustard	Husk	2.1	2.8	2.5	2.4	0.28			
Others	Others	0.43	1.3	1.7	0.17	0.022			
Total 55.6		233.8	422.7	108.4	14.4				

Т	Taluk level Residue-wise Data for Firozpur ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	113.2	490.9	736.4	147.3	19.1			
Wheat	Pod	113.2	490.9	147.3	73.6	10.3			
Mustard	Stalks	1.6	2.1	3.7	1.9	0.24			
Mustard	Husk	1.6	2.1	1.9	1.8	0.21			
Others	Others	0.17	0.50	0.65	0.065	0.0085			
To	tal	115.0	493.5	889.9	224.6	29.9			

Ta	Taluk level Residue-wise Data for Jalalabad; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	90.6	393.0	589.5	117.9	15.3			
Wheat	Pod	90.6	393.0	117.9	58.9	8.3			
Mustard	Stalks	2.2	2.9	5.2	2.6	0.34			
Mustard	Husk	2.2	2.9	2.6	2.4	0.29			
Others	Others	0.11	0.33	0.43	0.043	0.0055			
To	tal	93.0	396.2	715.5	181.9	24.2			

Taluk level Residue-wise Data for Zira; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	55.4	240.2	360.2	72.0	9.4			
Wheat	Pod	55.4	240.2	72.0	36.0	5.0			
Others	Others	0.33	0.66	1.2	0.50	0.063			
Total		55.7	240.8	433.5	108.6	14.5			

Ta	Taluk level Residue-wise Data for Batala ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	48.4	225.5	338.2	67.6	8.8			
Wheat	Pod	48.4	225.5	67.6	33.8	4.7			
Mustard	Stalks	0.84	0.87	1.6	0.79	0.10			
Mustard	Husk	0.84	0.87	0.79	0.75	0.090			
Others	Others	0.45	0.25	0.44	0.044	0.0058			
Total 49			226.6	408.7	103.0	13.7			

Talu	Taluk level Residue-wise Data for Dera Baba Nanak ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	29.0	135.3	202.9	40.6	5.3			
Wheat	Pod	29.0	135.3	40.6	20.3	2.8			
Others	Others	0.42	0.46	1.0	0.53	0.066			
T	Total		135.7	244.5	61.4	8.2			
Talu	k level Re	esidue-	wise Data fo	r Dhar Kalaı	n ; Season	: Rabi			
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	3.5	16.2	24.3	4.9	0.63			
Wheat	Pod	3.5	16.2	4.9	2.4	0.34			
Others	Others	0.11	0.29	0.45	0.13	0.016			
T	otal	3.6	16.5	29.6	7.4	0.99			

Ta	Taluk level Residue-wise Data for Gurdaspur ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	107.6	501.2	751.9	150.4	19.5			
Wheat	Pod	107.6	501.2	150.4	75.2	10.5			
Mustard	Stalks	1.3	1.3	2.3	1.2	0.15			
Mustard	Husk	1.3	1.3	1.2	1.1	0.13			
Others	Others	0.57	0.72	0.98	0.23	0.029			
To	tal	109.4	503.3	906.7	228.1	30.4			

Ta	Taluk level Residue-wise Data for Pathankot; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	28.7	133.9	200.8	40.2	5.2			
Wheat	Pod	28.7	133.9	40.2	20.1	2.8			
Mustard	Stalks	1.1	1.1	2.1	1.0	0.13			
Mustard	Husk	1.1	1.1	1.0	0.98	0.12			
Others	Others	0.56	0.74	0.98	0.28	0.036			
To	tal	30.4	135.8	245.0	62.5	8.3			

Ta	Taluk level Residue-wise Data for Dasua ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	32.4	117.1	175.7	35.1	4.6			
Wheat	Pod	32.4	117.1	35.1	17.6	2.5			
Mustard	Stalks	0.78	0.78	1.4	0.70	0.091			
Mustard	Husk	0.78	0.78	0.70	0.66	0.080			
Others	Others	0.089	0.13	0.26	0.052	0.0068			
To	Total		118.0	213.2	54.1	7.2			

Taluk	Taluk level Residue-wise Data for Garhshankar ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	15.6	56.5	84.8	17.0	2.2			
Wheat	Pod	15.6	56.5	17.0	8.5	1.2			
Others	Others	1.5	1.5	3.2	0.90	0.11			
To	otal	17.1	58.0	104.9	26.3	3.5			

Taluk level Residue-wise Data for Hoshiarpur ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)			
Wheat	Stalks	53.8	194.6	291.9	58.4	7.6		
Wheat	Pod	53.8	194.6	58.4	29.2	4.1		
Mustard	Stalks	0.59	0.59	1.1	0.53	0.069		

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential
Mustard	Husk	0.59	0.59	0.53	0.51	0.061
Others	Others	0.43	0.72	1.3	0.24	0.031
To	tal	54.8	195.9	353.2	88.9	11.8

Talu	Taluk level Residue-wise Data for Mukerian ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	38.0	137.5	206.3	41.3	5.4			
Wheat	Pod	38.0	137.5	41.3	20.6	2.9			
Mustard	Stalks	0.91	0.91	1.6	0.82	0.11			
Mustard	Husk	0.91	0.91	0.82	0.78	0.093			
Others	Others	0.67	0.77	1.3	0.42	0.054			
To	Total		139.2	251.3	63.9	8.5			

Talul	Taluk level Residue-wise Data for Jalandhar-I; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	32.0	150.3	225.4	45.1	5.9			
Wheat	Pod	32.0	150.3	45.1	22.5	3.2			
Mustard	Stalks	0.91	1.3	2.3	1.1	0.15			
Mustard	Husk	0.91	1.3	1.1	1.1	0.13			
Arhar	Stalks	0.94	0.84	2.1	0.63	0.082			
Others	Others	0.0084	0.010	0.27	0.027	0.0032			
To	tal	33.8	152.4	276.3	70.5	9.4			

Taluk	Taluk level Residue-wise Data for Jalandhar-Ii ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	11.9	55.8	83.7	16.7	2.2			
Wheat	Pod	11.9	55.8	16.7	8.4	1.2			
Mustard	Stalks	0.38	0.53	0.95	0.47	0.062			
Mustard	Husk	0.38	0.53	0.47	0.45	0.054			
Others	Others	0.0024	0.0011	0.0017	0.00063	8.17E-05			
Total		12.2	56.3	101.9	26.0	3.5			

Talı	Taluk level Residue-wise Data for Nakodar; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	34.8	163.8	245.8	49.2	6.4			
Wheat	Pod	34.8	163.8	49.2	24.6	3.4			
Mustard	Stalks	0.48	0.68	1.2	0.61	0.079			
Mustard	Husk	0.48	0.68	0.61	0.58	0.069			
Others	Others	0.33	0.39	0.61	0.17	0.023			
To	Total		164.9	297.3	75.1	10.0			

Talu	Taluk level Residue-wise Data for Phillaur ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	57.3	269.3	403.9	80.8	10.5				
Wheat	Pod	57.3	269.3	80.8	40.4	5.7				
Sunflower	Stalks	2.6	3.6	7.1	1.4	0.19				
Mustard	Stalks	0.32	0.45	0.80	0.40	0.052				
Others	Others	0.10	0.13	0.59	0.40	0.048				
Total		60.3	273.4	493.2	123.4	16.4				

Ta	Taluk level Residue-wise Data for Shahkot ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	31.3	147.3	220.9	44.2	5.7			
Wheat	Pod	31.3	147.3	44.2	22.1	3.1			
Others	Others	0.23	0.16	0.30	0.10	0.013			
T	otal	31.5	147.4	265.4	66.4	8.8			

Taluk level Residue-wise Data for Bhulath; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	19.7	93.0	139.5	27.9	3.6			
Wheat	Pod	19.7	93.0	27.9	14.0	2.0			
Others	Others	0.20	0.25	0.69	0.45	0.056			
T	otal	19.9	93.3	168.1	42.3	5.6			

Taluk	Taluk level Residue-wise Data for Kapurthala ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	50.6	238.7	358.1	71.6	9.3				
Wheat	Pod	50.6	238.7	71.6	35.8	5.0				
Others	Others	0.31	0.40	1.1	0.70	0.088				
Sunflower	Stalks	0.83	1.2	2.4	0.49	0.063				
Tot	Total		240.3	433.2	108.6	14.5				

Talı	Taluk level Residue-wise Data for Phagwara; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	23.5	110.9	166.3	33.3	4.3			
Wheat	Pod	23.5	110.9	33.3	16.6	2.3			
Others	Others	0.49	0.71	1.5	0.39	0.050			
T	Total		111.6	201.1	50.3	6.7			

Talu	Taluk level Residue-wise Data for Sultanpur Lodhi ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	20.3	95.7	143.6	28.7	3.7		
Wheat	Pod	20.3	95.7	28.7	14.4	2.0		
Others	Others	0.29	0.39	1.0	0.59	0.074		
T	otal	20.6	96.1	173.3	43.7	5.8		

Tal	Taluk level Residue-wise Data for Jagraon ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	64.6	327.6	491.4	98.3	12.8			
Wheat	Pod	64.6	327.6	98.3	49.1	6.9			
Mustard	Stalks	0.41	0.56	1.0	0.50	0.065			
Arhar	Stalks	0.74	0.59	1.5	0.44	0.058			
Mustard	Husk	0.41	0.56	0.50	0.48	0.057			
Others	Others	0.26	0.78	1.2	0.14	0.017			
Total 66		66.0	329.5	593.9	149.0	19.9			

Ta	Taluk level Residue-wise Data for Khanna ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	11.9	60.6	90.8	18.2	2.4			
Wheat	Pod	11.9	60.6	18.2	9.1	1.3			
Others	Others	0.43	0.81	1.6	0.68	0.085			
Total		12.4	61.4	110.6	27.9	3.7			

Taluk l	Taluk level Residue-wise Data for Ludhiana(East); Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	45.5	230.9	346.3	69.3	9.0			
Wheat	Pod	45.5	230.9	69.3	34.6	4.8			
Mustard	Stalks	0.42	0.57	1.0	0.51	0.067			
Mustard	Husk	0.42	0.57	0.51	0.49	0.058			
Others	Others	0.55	1.1	1.7	0.29	0.038			
To	Total		232.5	418.8	105.2	14.0			

Taluk le	Taluk level Residue-wise Data for Ludhiana(West); Season: Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	31.2	158.4	237.6	47.5	6.2		
Wheat	Pod	31.2	158.4	47.5	23.8	3.3		
Mustard	Stalks	0.65	0.88	1.6	0.80	0.10		
Mustard	Husk	0.65	0.88	0.80	0.76	0.091		
Others	Others	1.2	2.7	4.1	0.61	0.080		
To	tal	33.1	162.0	291.6	73.5	9.8		

Т	Taluk level Residue-wise Data for Payal ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	35.2	178.8	268.2	53.6	7.0			
Wheat	Pod	35.2	178.8	53.6	26.8	3.8			
Others	Others	0.69	1.3	2.4	0.82	0.10			
T	Total		180.2	324.3	81.3	10.8			

Ta	Taluk level Residue-wise Data for Raikot ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	28.7	145.5	218.2	43.6	5.7			
Wheat	Pod	28.7	145.5	43.6	21.8	3.1			
Others	Others	0.94	1.4	2.8	0.79	0.10			
T	otal	29.6	146.9	264.6	66.2	8.8			

Ta	Taluk level Residue-wise Data for Samrala ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	41.0	208.0	312.0	62.4	8.1			
Wheat	Pod	41.0	208.0	62.4	31.2	4.4			
Others	Others	0.68	1.4	2.5	0.76	0.096			
T	Total		209.4	376.8	94.4	12.6			

Talu	Taluk level Residue-wise Data for Budhlada ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	71.1	287.7	431.6	86.3	11.2			
Wheat	Pod	71.1	287.7	86.3	43.2	6.0			
Mustard	Stalks	0.70	0.77	1.4	0.69	0.090			
Mustard	Husk	0.70	0.77	0.69	0.66	0.079			
Total		71.8	288.5	520.0	130.8	17.4			

Ta	Taluk level Residue-wise Data for Mansa; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	75.6	305.8	458.7	91.7	11.9			
Wheat	Pod	75.6	305.8	91.7	45.9	6.4			
Mustard	Stalks	0.97	1.1	1.9	0.95	0.12			
Mustard	Husk	0.97	1.1	0.95	0.90	0.11			
Others	Others	0.055	0.14	0.18	0.018	0.0024			
To	Total		307.0	553.5	139.5	18.6			

Talul	Taluk level Residue-wise Data for Sardulgarh ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	19.5	79.0	118.6	23.7	3.1			
Wheat	Pod	19.5	79.0	23.7	11.9	1.7			
Mustard	Stalks	0.69	0.76	1.4	0.68	0.089			
Mustard	Husk	0.69	0.76	0.68	0.65	0.078			
To	Total		79.8	144.3	36.9	4.9			

Talu	Taluk level Residue-wise Data for Bagha Purana ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	62.8	293.0	439.4	87.9	11.4		
Wheat	Pod	62.8	293.0	87.9	43.9	6.2		
Others	Others	0.00025	0.00034	0.00092	0.00060	7.49E-05		
T	otal	62.8	293.0	527.3	131.8	17.6		

T	Taluk level Residue-wise Data for Moga ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Wheat	Stalks	55.4	258.6	387.9	77.6	10.1		
Wheat	Pod	55.4	258.6	77.6	38.8	5.4		
Te	otal	55.4	258.6	465.5	116.4	15.5		

Talu	Taluk level Residue-wise Data for Nihal Singhwala ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	48.7	227.3	341.0	68.2	8.9		
Wheat	Pod	48.7	227.3	68.2	34.1	4.8		
T	otal	48.7	227.3	409.2	102.3	13.6		

Taluk	Taluk level Residue-wise Data for Giddarbaha; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	74.5	315.9	473.9	94.8	12.3			
Wheat	Pod	74.5	315.9	94.8	47.4	6.6			
Mustard	Stalks	0.93	1.3	2.3	1.1	0.15			
Mustard	Husk	0.93	1.3	1.1	1.1	0.13			
Barley	Stalks	1.8	5.6	7.2	0.72	0.094			
Others	Others	0.20	0.17	0.38	0.12	0.016			
To	Total		322.9	579.7	145.2	19.3			

Tal	Taluk level Residue-wise Data for Malout ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	81.9	346.9	520.3	104.1	13.5			
Wheat	Pod	81.9	346.9	104.1	52.0	7.3			
Mustard	Stalks	1.1	1.6	2.8	1.4	0.18			
Mustard	Husk	1.1	1.6	1.4	1.3	0.16			
Others	Others	0.90	2.0	2.7	0.45	0.059			
To	tal	83.9	350.5	631.3	159.3	21.2			

Talı	Taluk level Residue-wise Data for Muktsar ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	40.1	169.9	254.9	51.0	6.6			
Wheat	Pod	40.1	169.9	51.0	25.5	3.6			
Mustard	Stalks	0.54	0.73	1.3	0.66	0.086			
Mustard	Husk	0.54	0.73	0.66	0.63	0.075			
Others	Others	0.85	2.2	3.0	0.40	0.053			
To	Total		172.9	310.8	78.2	10.4			

Taluk level Residue-wise Data for Balachaur ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	26.0	118.7	178.1	35.6	4.6		
Wheat	Pod	26.0	118.7	35.6	17.8	2.5		
Others	Others	0.099	0.10	0.28	0.18	0.022		
T	otal	26.1	118.8	214.0	53.6	7.1		

Talul	Taluk level Residue-wise Data for Nawanshahr; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	45.1	205.8	308.7	61.7	8.0			
Wheat	Pod	45.1	205.8	61.7	30.9	4.3			
Others	Others	0.082	0.085	0.23	0.15	0.019			
T	otal	45.2	205.9	370.7	92.8	12.4			

Talu	Taluk level Residue-wise Data for Dera Bassi ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Wheat	Stalks	20.9	103.5	155.2	31.0	4.0		
Wheat	Pod	20.9	103.5	31.0	15.5	2.2		
T	otal	20.9	103.5	186.3	46.6	6.2		

Т	Taluk level Residue-wise Data for Nabha ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	36.1	178.3	267.5	53.5	7.0			
Wheat	Pod	36.1	178.3	53.5	26.7	3.7			
Others	Others	0.0054	0.023	0.030	0.0030	0.00040			
T	Total		178.3	321.0	80.2	10.7			

Ta	Taluk level Residue-wise Data for Patiala ; Season : Rabi							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)			
Wheat	Stalks	94.9	469.1	703.6	140.7	18.3		
Wheat	Pod	94.9	469.1	140.7	70.4	9.9		
Total 94.9 469.1 844.4 21						28.1		

Tal	Taluk level Residue-wise Data for Rajpura ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)				
Wheat	Stalks	74.0	365.6	548.4	109.7	14.3			
Wheat	Pod	74.0	365.6	109.7	54.8	7.7			
T	Total 74.0 365.6 658.1 164.5 21.9								

Ta	Taluk level Residue-wise Data for Samana; Season: Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)				
Wheat	Stalks	44.1	218.2	327.4	65.5	8.5			
Wheat	Pod	44.1	218.2	65.5	32.7	4.6			
To	Total 44.1 218.2 392.8 98.2 13.								

Talu	Taluk level Residue-wise Data for Anandpur Sahib ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	21.8	85.8	128.7	25.7	3.3			
Wheat	Pod	21.8	85.8	25.7	12.9	1.8			
Others	Others	0.23	0.20	0.52	0.32	0.040			
T	otal	22.0	86.0	155.0	38.9	5.2			

Ta	Taluk level Residue-wise Data for Kharar; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	18.7	73.8	110.7	22.1	2.9				
Wheat	Pod	18.7	73.8	22.1	11.1	1.6				
Others	Others	0.24	0.20	0.51	0.30	0.037				
T	otal	19.0	74.0	133.4	33.5	4.5				

Talu	Taluk level Residue-wise Data for Rupnagar ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	38.0	149.6	224.4	44.9	5.8				
Wheat	Pod	38.0	149.6	44.9	22.4	3.1				
Others	Others	1.3	2.3	3.8	0.62	0.080				
Mustard	Stalks	0.65	0.58	1.1	0.53	0.068				
Mustard	Husk	0.65	0.58	0.53	0.50	0.060				
To	tal	39.9	152.5	274.7	69.0	9.2				

Taluk	Taluk level Residue-wise Data for S.A.S.Nagar(Mohali) ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	11.2	44.0	66.0	13.2	1.7			
Wheat	Pod	11.2	44.0	13.2	6.6	0.92			
Others	Others	0.21	0.14	0.32	0.14	0.017			
To	otal	11.4	44.2	79.6	20.0	2.7			

,	Taluk level Residue-wise Data for Barnala ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	122.6	591.4	887.0	177.4	23.1				
Wheat	Pod	122.6	591.4	177.4	88.7	12.4				
Barley	Stalks	1.5	6.3	8.2	0.82	0.11				
Others	Others	0.0054	0.0062	0.017	0.011	0.0014				
T	otal	124.2	597.7	1072.6	266.9	35.6				

	Taluk level Residue-wise Data for Dhuri ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	51.7	249.1	373.6	74.7	9.7				
Wheat	Pod	51.7	249.1	74.7	37.4	5.2				
Barley	Stalks	0.81	3.4	4.4	0.44	0.057				
Others	Others	0.0069	0.0080	0.022	0.014	0.0018				
T	otal	52.5	252.4	452.7	112.5	15.0				

Talu	Taluk level Residue-wise Data for Malerkotla ; Season : Rabi								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	51.4	247.9	371.8	74.4	9.7			
Wheat	Pod	51.4	247.9	74.4	37.2	5.2			
Others	Others	0.70	2.9	3.8	0.38	0.049			
Total 52.1 250.8 450.0 111.9						14.9			

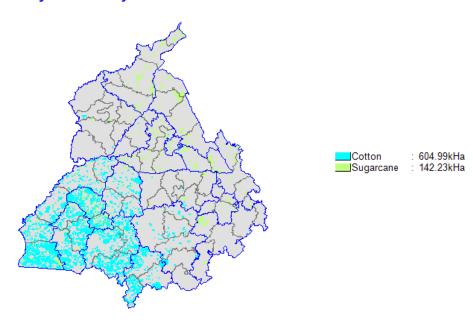
Tal	Taluk level Residue-wise Data for Moonak ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	61.0	294.3	441.5	88.3	11.5				
Wheat	Pod	61.0	294.3	88.3	44.2	6.2				
Others	Others	0.20	0.83	1.1	0.11	0.014				
T	Total 61.2 295.2 530.9 132.6 17.7									

Ta	Taluk level Residue-wise Data for Sangrur ; Season : Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	77.8	375.0	562.6	112.5	14.6				
Wheat	Pod	77.8	375.0	112.5	56.3	7.9				
Barley	Stalks	1.7	7.2	9.3	0.93	0.12				
Others	Others	0.044	0.046	0.13	0.065	0.0082				
T	otal	79.6	382.2	684.5	169.8	22.6				

T	Taluk level Residue-wise Data for Sunam; Season: Rabi									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	27.6	133.0	199.5	39.9	5.2				
Wheat	Pod	27.6	133.0	39.9	20.0	2.8				
Barley	Stalks	0.81	3.4	4.4	0.44	0.057				
Others	Others	0.0011	0.0012	0.0034	0.0022	0.00027				
Total		28.4	136.4	243.8	60.3	8.0				

Yearly





State Level Residue Wise

	State level Residue-wise Data for Punjab; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	605.0	1647.1	2299.0	2069.1	289.7			
Cotton	Husk	605.0	1647.1	1811.8	1630.6	228.3			
Cotton	Bollshell	605.0	1647.1	1811.8	1630.6	228.3			
Sugarcane	Tops & Leaves	142.2	9255.1	462.8	115.7	16.2			
	Γotal	747.2	10902.3	6385.4	5446.1	762.5			

State Level District Wise

State level	State level District-wise Data for Punjab; Season: Yearly										
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)						
Bathinda	163.1	528.1	1635.8	1470.0	205.8						
Firozpur	154.1	917.8	1425.6	1265.8	177.2						
Muktsar	130.6	720.5	1239.2	1102.8	154.4						
Mansa	88.3	242.1	864.2	777.7	108.9						
Faridkot	39.9	431.6	367.2	319.6	44.7						
Sangrur	32.0	353.2	283.3	245.9	34.4						
Moga	16.4	187.8	140.4	121.4	17.0						
Amritsar	12.2	702.8	54.4	26.3	3.7						
Ludhiana	9.9	552.9	44.1	21.8	3.1						
Gurdaspur	23.1	1574.2	78.7	19.7	2.8						
Jalandhar	16.8	1000.6	57.1	18.9	2.7						
Hoshiarpur	21.2	1298.1	65.3	16.6	2.3						
Patiala	6.0	360.2	26.8	12.5	1.7						
Nawanshahr	12.2	725.2	36.7	9.4	1.3						
Rupnagar	10.2	553.4	28.1	7.3	1.0						
Kapurthala	6.2	379.0	19.8	5.5	0.77						
Fatehgarh Sahib	5.1	374.8	18.7	4.7	0.66						
Total	747.2	10902.3	6385.4	5446.1	762.5						

State Level Taluk Wise

	State level Taluk-wise Data for Punjab ; Season : Yearly										
District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Bathinda	Talwandi Sabo	81.6	232.5	821.6	739.5	103.5					
Firozpur	Abohar	82.6	500.3	763.4	677.5	94.9					
Muktsar	Malout	60.9	209.9	588.0	527.6	73.9					
Bathinda	Rampura Phul	42.7	134.0	428.7	385.4	54.0					
Firozpur	Fazilka	44.8	159.4	427.6	383.5	53.7					
Mansa	Sardulgarh	42.7	117.9	417.8	376.0	52.6					
Muktsar	Giddarbaha	44.2	351.4	410.5	361.6	50.6					

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Bathinda	Bathinda	38.8	161.5	385.4	345.2	48.3
Mansa	Mansa	33.8	92.0	330.7	297.6	41.7
Faridkot	Faridkot	29.4	271.5	273.5	239.7	33.6
Muktsar	Muktsar	25.5	159.1	240.7	213.6	29.9
Mansa	Budhlada	11.8	32.2	115.7	104.2	14.6
Firozpur	Jalalabad	12.2	62.6	113.8	101.4	14.2
Faridkot	Jaitu	10.5	160.2	93.6	79.8	11.2
Moga	Moga	10.1	145.0	84.4	71.9	10.1
Sangrur	Dhuri	8.0	21.1	76.8	69.2	9.7
Sangrur	Sangrur	7.6	20.1	73.0	65.7	9.2
Firozpur	Firozpur	9.4	153.1	75.3	63.4	8.9
Sangrur	Sunam	5.6	14.8	54.0	48.6	6.8
Firozpur	Zira	5.1	42.4	45.4	39.9	5.6
Sangrur	Barnala	6.4	219.5	42.7	31.6	4.4
Moga	Nihal Singhwala	3.7	9.2	34.2	30.8	4.3
Sangrur	Malerkotla	3.8	75.9	30.5	25.2	3.5
Moga	Bagha Purana	2.6	33.6	21.8	18.7	2.6
Amritsar	Amritsar-I	2.0	5.2	19.1	17.2	2.4
Ludhiana	Payal	6.8	407.7	28.1	12.1	1.7
Gurdaspur	Gurdaspur	13.5	918.1	45.9	11.5	1.6
Patiala	Nabha	4.4	275.1	18.5	7.8	1.1
Ludhiana	Ludhiana(East)	0.88	2.3	8.4	7.6	1.1
Hoshiarpur	Dasua	8.4	515.3	25.8	6.4	0.90
Nawanshahr	Nawanshahr	7.5	447.2	22.8	6.0	0.84
Sangrur	Moonak	0.65	1.7	6.3	5.6	0.79
Amritsar	Baba Bakala	6.4	436.6	21.8	5.5	0.76
Jalandhar	Jalandhar-Ii	2.1	106.5	9.8	5.4	0.76
Jalandhar	Shahkot	3.3	193.9	12.1	4.6	0.65
Hoshiarpur	Garhshankar	5.7	348.0	17.4	4.4	0.61
Hoshiarpur	Mukerian	5.1	314.6	15.7	3.9	0.55
Patiala	Dera Bassi	0.82	31.4	5.3	3.8	0.53
Nawanshahr	Balachaur	4.7	277.9	13.9	3.5	0.49
Jalandhar	Phillaur	4.2	263.3	13.3	3.5	0.48
Rupnagar	Anandpur Sahib	4.2	225.3	11.7	3.2	0.45
Gurdaspur	Pathankot	3.4	228.7	11.4	2.9	0.40
Jalandhar	Jalandhar-I	3.5	218.7	10.9	2.7	0.38

District	Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Jalandhar	Nakodar	3.5	218.2	10.9	2.7	0.38
Gurdaspur	Batala	3.2	216.5	10.8	2.7	0.38
Fatehgarh Sahib	Fatehgarh Sahib	2.9	213.5	10.7	2.7	0.37
Kapurthala	Kapurthala	2.3	135.8	7.6	2.5	0.35
Gurdaspur	Dhar Kalan	2.7	182.6	9.1	2.3	0.32
Amritsar	Tarn-Taran	2.2	144.9	7.7	2.2	0.31
Kapurthala	Phagwara	2.8	171.9	8.6	2.2	0.30
Hoshiarpur	Hoshiarpur	2.0	120.2	6.4	1.9	0.27
Rupnagar	S.A.S.Nagar(Mohali)	2.2	119.5	6.0	1.5	0.21
Amritsar	Amritsar-Ii	1.7	116.1	5.8	1.5	0.20
Rupnagar	Kharar	2.1	112.8	5.6	1.4	0.20
Rupnagar	Rupnagar	1.8	95.7	4.8	1.2	0.17
Ludhiana	Jagraon	0.78	49.6	2.9	0.96	0.14
Ludhiana	Samrala	1.1	72.1	3.6	0.90	0.13
Fatehgarh Sahib	Bassi Pathana	0.97	71.2	3.6	0.89	0.12
Fatehgarh Sahib	Khamanon	0.80	59.0	3.0	0.74	0.10
Patiala	Samana	0.76	53.6	2.7	0.67	0.094
Kapurthala	Sultanpur Lodhi	0.66	41.1	2.1	0.51	0.072
Fatehgarh Sahib	Amloh	0.42	31.0	1.6	0.39	0.054
Kapurthala	Bhulath	0.49	30.2	1.5	0.38	0.053
Gurdaspur	Dera Baba Nanak	0.41	28.3	1.4	0.35	0.050
Ludhiana	Raikot	0.31	21.1	1.1	0.26	0.037
Patiala	Rajpura	0.027	0.071	0.26	0.23	0.032
	Fotal	747.2	10902.3	6385.4	5446.1	762.5

District Level Residue Wise

District level Residue-wise Data for Amritsar; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Sugarcane	Tops & Leaves	10.2	697.4	34.9	8.7	1.2			
Cotton	Stalks	2.0	5.4	7.7	7.0	0.98			
Cotton	Bollshell	2.0	5.4	5.9	5.3	0.74			
Cotton	Husk	2.0	5.4	5.9	5.3	0.74			
	Γotal	12.2	702.8	54.4	26.3	3.7			

Dis	District level Residue-wise Data for Bathinda; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	162.1	462.0	616.0	554.4	77.6			
Cotton	Bollshell	162.1	462.0	508.2	457.4	64.0			
Cotton	Husk	162.1	462.0	508.2	457.4	64.0			
Sugarcane	Tops & Leaves	1.0	66.1	3.3	0.83	0.12			
	Fotal	163.1	528.1	1635.8	1470.0	205.8			

Ι	District level Residue-wise Data for Faridkot; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	36.1	96.9	137.2	123.5	17.3				
Cotton	Bollshell	36.1	96.9	106.6	96.0	13.4				
Cotton	Husk	36.1	96.9	106.6	96.0	13.4				
Sugarcane	Tops & Leaves	3.8	334.7	16.7	4.2	0.59				
ŗ	Total		431.6	367.2	319.6	44.7				

District	District level Residue-wise Data for Fatehgarh Sahib; Season : Yearly								
Crop	Pocidiio	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential			
Sugarcane	Tops & Leaves	5.1	374.8	18.7	4.7	0.66			
7	Fotal	5.1	374.8	18.7	4.7	0.66			

Ι	District level Residue-wise Data for Firozpur; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	144.9	385.6	550.8	495.7	69.4				
Cotton	Bollshell	144.9	385.6	424.1	381.7	53.4				
Cotton	Husk	144.9	385.6	424.1	381.7	53.4				
Sugarcane	Tops & Leaves	9.2	532.3	26.6	6.7	0.93				
ŗ	Total		917.8	1425.6	1265.8	177.2				

District level Residue-wise Data for Gurdaspur; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	23.1	1574.2	78.7	19.7	2.8		
7	Γotal	23.1	1574.2	78.7	19.7	2.8		

District level Residue-wise Data for Hoshiarpur; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)				
Sugarcane	Tops & Leaves	21.1	1298.0	64.9	16.2	2.3			
Others	Others	0.045	0.13	0.45	0.41	0.057			
7	Γotal	21.2	1298.1	65.3	16.6	2.3			

Dist	District level Residue-wise Data for Jalandhar; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sugarcane	Tops & Leaves	16.0	998.5	49.9	12.5	1.7				
Cotton	Stalks	0.71	2.0	2.7	2.4	0.34				
Cotton	Bollshell	0.71	2.0	2.2	2.0	0.28				
Cotton	Husk	0.71	2.0	2.2	2.0	0.28				
	Fotal	16.8	1000.6	57.1	18.9	2.7				

District level Residue-wise Data for Kapurthala; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	6.1	378.8	18.9	4.7	0.66		
Others	Others	0.091	0.25	0.89	0.80	0.11		
ŗ	Fotal	6.2	379.0	19.8	5.5	0.77		

Dist	District level Residue-wise Data for Ludhiana; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sugarcane	Tops & Leaves	8.1	548.3	27.4	6.9	0.96				
Cotton	Stalks	1.7	4.6	6.6	5.9	0.83				
Cotton	Bollshell	1.7	4.6	5.0	4.5	0.63				
Cotton	Husk	1.7	4.6	5.0	4.5	0.63				
,	Fotal	9.9	552.9	44.1	21.8	3.1				

Dis	District level Residue-wise Data for Mansa; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	88.3	240.2	335.6	302.1	42.3				
Cotton	Bollshell	88.3	240.2	264.3	237.8	33.3				
Cotton	Husk	88.3	240.2	264.3	237.8	33.3				
Others	Others	0.027	1.9	0.093	0.023	0.0033				
Total		88.3	242.1	864.2	777.7	108.9				

District level Residue-wise Data for Moga; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	14.3	35.6	54.5	49.1	6.9			
Cotton	Bollshell	14.3	35.6	39.1	35.2	4.9			
Cotton	Husk	14.3	35.6	39.1	35.2	4.9			
Sugarcane	Tops & Leaves	2.0	152.2	7.6	1.9	0.27			
	Γotal	16.4	187.8	140.4	121.4	17.0			

Ι	District level Residue-wise Data for Muktsar; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	125.5	337.7	477.1	429.4	60.1				
Cotton	Bollshell	125.5	337.7	371.5	334.3	46.8				
Cotton	Husk	125.5	337.7	371.5	334.3	46.8				
Sugarcane	Tops & Leaves	5.0	382.8	19.1	4.8	0.67				
	Γotal	130.6	720.5	1239.2	1102.8	154.4				

District level Residue-wise Data for Nawanshahr; Season : Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Sugarcane	Tops & Leaves	12.2	725.0	36.3	9.1	1.3		
Others	Others	0.046	0.12	0.43	0.39	0.054		
7	Γotal	12.2	725.2	36.7	9.4	1.3		

District level Residue-wise Data for Patiala; Season : Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Sugarcane	Tops & Leaves	5.1	357.8	17.9	4.5	0.63			
Cotton	Stalks	0.92	2.4	3.5	3.1	0.44			
Cotton	Bollshell	0.92	2.4	2.7	2.4	0.34			
Cotton	Husk	0.92	2.4	2.7	2.4	0.34			
	Fotal	6.0	360.2	26.8	12.5	1.7			

District level Residue-wise Data for Rupnagar; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	10.2	553.3	27.7	6.9	0.97		
Others	Others	0.046	0.13	0.45	0.41	0.057		
	Γotal	10.2	553.4	28.1	7.3	1.0		

Dis	District level Residue-wise Data for Sangrur; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	28.0	74.1	106.4	95.8	13.4				
Cotton	Bollshell	28.0	74.1	81.5	73.3	10.3				
Cotton	Husk	28.0	74.1	81.5	73.3	10.3				
Sugarcane	Tops & Leaves	4.0	279.1	14.0	3.5	0.49				
•	Γotal	32.0	353.2	283.3	245.9	34.4				

District Level Taluk Wise

DistrictLo	DistrictLevel Taluk-wise Data for Amritsar; Season: Yearly								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Amritsar-I	2.0	5.2	19.1	17.2	2.4				
Baba Bakala	6.4	436.6	21.8	5.5	0.76				
Tarn-Taran	2.2	144.9	7.7	2.2	0.31				
Amritsar-Ii	1.7	116.1	5.8	1.5	0.20				
Total	12.2	702.8	54.4	26.3	3.7				

DistrictLevel Taluk-wise Data for Bathinda; Season: Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Talwandi Sabo	81.6	232.5	821.6	739.5	103.5				
Rampura Phul	42.7	134.0	428.7	385.4	54.0				
Bathinda	38.8	161.5	385.4	345.2	48.3				
Total	163.1	528.1	1635.8	1470.0	205.8				

DistrictLevel Taluk-wise Data for Faridkot; Season: Yearly								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Faridkot	29.4	271.5	273.5	239.7	33.6			
Jaitu	10.5	160.2	93.6	79.8	11.2			
Total	39.9	431.6	367.2	319.6	44.7			

DistrictLevel Taluk-wise Data for Fatehgarh Sahib; Season: Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Fatehgarh Sahib	2.9	213.5	10.7	2.7	0.37				
Bassi Pathana	0.97	71.2	3.6	0.89	0.12				
Khamanon	0.80	59.0	3.0	0.74	0.10				
Amloh	0.42	31.0	1.6	0.39	0.054				
Total	5.1	374.8	18.7	4.7	0.66				

Dist	DistrictLevel Taluk-wise Data for Firozpur ; Season : Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Abohar	82.6	500.3	763.4	677.5	94.9					
Fazilka	44.8	159.4	427.6	383.5	53.7					
Jalalabad	12.2	62.6	113.8	101.4	14.2					
Firozpur	9.4	153.1	75.3	63.4	8.9					
Zira	5.1	42.4	45.4	39.9	5.6					
Total	154.1	917.8	1425.6	1265.8	177.2					

DistrictLevel Taluk-wise Data for Gurdaspur; Season: Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Gurdaspur	13.5	918.1	45.9	11.5	1.6				
Pathankot	3.4	228.7	11.4	2.9	0.40				
Batala	3.2	216.5	10.8	2.7	0.38				
Dhar Kalan	2.7	182.6	9.1	2.3	0.32				
Dera Baba Nanak	0.41	28.3	1.4	0.35	0.050				
Total	23.1	1574.2	78.7	19.7	2.8				

DistrictLevel Taluk-wise Data for Hoshiarpur ; Season : Yearly										
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Dasua	8.4	515.3	25.8	6.4	0.90					
Garhshankar	5.7	348.0	17.4	4.4	0.61					
Mukerian	5.1	314.6	15.7	3.9	0.55					
Hoshiarpur	2.0	120.2	6.4	1.9	0.27					
Total	21.2	1298.1	65.3	16.6	2.3					

DistrictLevel Taluk-wise Data for Jalandhar ; Season : Yearly										
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Jalandhar-Ii	2.1	106.5	9.8	5.4	0.76					
Shahkot	3.3	193.9	12.1	4.6	0.65					
Phillaur	4.2	263.3	13.3	3.5	0.48					
Jalandhar-I	3.5	218.7	10.9	2.7	0.38					
Nakodar	3.5	218.2	10.9	2.7	0.38					
Total	16.8	1000.6	57.1	18.9	2.7					

DistrictLevel Taluk-wise Data for Kapurthala ; Season : Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Kapurthala	2.3	135.8	7.6	2.5	0.35				
Phagwara	2.8	171.9	8.6	2.2	0.30				
Sultanpur Lodhi	0.66	41.1	2.1	0.51	0.072				
Bhulath	0.49	30.2	1.5	0.38	0.053				
Total	6.2	379.0	19.8	5.5	0.77				

DistrictLevel Taluk-wise Data for Ludhiana; Season: Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Payal	6.8	407.7	28.1	12.1	1.7				
Ludhiana(East)	0.88	2.3	8.4	7.6	1.1				
Jagraon	0.78	49.6	2.9	0.96	0.14				
Samrala	1.1	72.1	3.6	0.90	0.13				
Raikot	0.31	21.1	1.1	0.26	0.037				
Total	9.9	552.9	44.1	21.8	3.1				

DistrictLevel Taluk-wise Data for Mansa; Season: Yearly										
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Sardulgarh	42.7	117.9	417.8	376.0	52.6					
Mansa	33.8	92.0	330.7	297.6	41.7					
Budhlada	11.8	32.2	115.7	104.2	14.6					
Total	88.3	242.1	864.2	777.7	108.9					

DistrictLevel Taluk-wise Data for Moga ; Season : Yearly								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Moga	10.1	145.0	84.4	71.9	10.1			
Nihal Singhwala	3.7	9.2	34.2	30.8	4.3			
Bagha Purana	2.6	33.6	21.8	18.7	2.6			
Total	16.4	187.8	140.4	121.4	17.0			

DistrictLevel Taluk-wise Data for Muktsar; Season: Yearly								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Malout	60.9	209.9	588.0	527.6	73.9			
Giddarbaha	44.2	351.4	410.5	361.6	50.6			
Muktsar	25.5	159.1	240.7	213.6	29.9			
Total	130.6	720.5	1239.2	1102.8	154.4			

DistrictLevel Taluk-wise Data for Nawanshahr ; Season : Yearly								
Taluk	Area (kHa)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Nawanshahr	7.5	447.2	22.8	6.0	0.84			
Balachaur	4.7	277.9	13.9	3.5	0.49			
Total	12.2	725.2	36.7	9.4	1.3			

District	DistrictLevel Taluk-wise Data for Patiala ; Season : Yearly									
Taluk	Area (kHa)	Area Crop Bio		Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Nabha	4.4	275.1	18.5	7.8	1.1					
Dera Bassi	0.82	31.4	5.3	3.8	0.53					
Samana	0.76	53.6	2.7	0.67	0.094					
Rajpura	0.027	0.071	0.26	0.23	0.032					
Total	6.0	360.2	26.8	12.5	1.7					

DistrictLevel Taluk-wise Data for Rupnagar ; Season : Yearly									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Anandpur Sahib	4.2	225.3	11.7	3.2	0.45				
S.A.S.Nagar(Mohali)	2.2	119.5	6.0	1.5	0.21				
Kharar	2.1	112.8	5.6	1.4	0.20				
Rupnagar	1.8	95.7	4.8	1.2	0.17				
Total	10.2	553.4	28.1	7.3	1.0				

District	DistrictLevel Taluk-wise Data for Sangrur; Season: Yearly									
Taluk	Area (kHa)	Production Generation		Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Dhuri	8.0	21.1	76.8	69.2	9.7					
Sangrur	7.6	20.1	73.0	65.7	9.2					
Sunam	5.6	14.8	54.0	48.6	6.8					
Barnala	6.4	219.5	42.7	31.6	4.4					
Malerkotla	3.8	75.9	30.5	25.2	3.5					
Moonak	0.65	1.7	6.3	5.6	0.79					
Total	32.0	353.2	283.3	245.9	34.4					

Taluk Level Residue Wise

Talu	Taluk level Residue-wise Data for Amritsar-I; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Cotton	Stalks	2.0	5.2	7.6	6.8	0.96				
Cotton	Bollshell	2.0	5.2	5.8	5.2	0.73				
Cotton	Husk	2.0	5.2	5.8	5.2	0.73				
T	otal	2.0	5.2	19.1	17.2	2.4				

Taluk level Residue-wise Data for Amritsar-Ii; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane Tops & Leaves		1.7	116.1	5.8	1.5	0.20		
Total 1.7 116.1 5.8					1.5	0.20		

Taluk level Residue-wise Data for Baba Bakala ; Season : Yearly							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential	
Sugarcane Tops & Leaves		6.4	436.6	21.8	5.5	0.76	
	Fotal	6.4	436.6	21.8	5.5	0.76	

Taluk level Residue-wise Data for Tarn-Taran; Season: Yearly								
Crop	Crop Residue Area (kHa) Crop Production (kT/Yr) Biomass Generation (kT/Yr) Biomass Generation (kT/Yr) Potential (kT/Yr) Power (MV)							
Sugarcane	Tops & Leaves	2.1	144.8	7.2	1.8	0.25		
Others Others		0.044	0.12	0.42	0.38	0.053		
7	Total 2.2 144.9 7.7 2.2 0.31							

Taluk level Residue-wise Data for Bathinda; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	38.0	108.3	144.4	130.0	18.2			
Cotton	Bollshell	38.0	108.3	119.2	107.2	15.0			
Cotton	Husk	38.0	108.3	119.2	107.2	15.0			
Sugarcane	Tops & Leaves	0.82	53.2	2.7	0.66	0.093			
,	Total	38.8	161.5	385.4	345.2	48.3			

Taluk 1	Taluk level Residue-wise Data for Rampura Phul; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	42.5	121.1	161.5	145.4	20.4				
Cotton	Bollshell	42.5	121.1	133.3	119.9	16.8				
Cotton	Husk	42.5	121.1	133.3	119.9	16.8				
Others	Others	0.20	12.9	0.64	0.16	0.023				
T	otal	42.7	134.0	428.7	385.4	54.0				

Taluk l	Taluk level Residue-wise Data for Talwandi Sabo ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	81.6	232.5	310.0	279.0	39.1				
Cotton	Bollshell	81.6	232.5	255.8	230.2	32.2				
Cotton	Husk	81.6	232.5	255.8	230.2	32.2				
T	otal	81.6	232.5	821.6	739.5	103.5				

Taluk level Residue-wise Data for Faridkot; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	27.2	72.9	103.2	92.9	13.0			
Cotton	Bollshell	27.2	72.9	80.2	72.2	10.1			
Cotton	Husk	27.2	72.9	80.2	72.2	10.1			
Sugarcane	Tops & Leaves	2.3	198.5	9.9	2.5	0.35			
	Fotal	29.4	271.5	273.5	239.7	33.6			

Taluk level Residue-wise Data for Jaitu; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	8.9	24.0	34.0	30.6	4.3			
Cotton	Bollshell	8.9	24.0	26.4	23.8	3.3			
Cotton	Husk	8.9	24.0	26.4	23.8	3.3			
Sugarcane	Tops & Leaves	1.6	136.1	6.8	1.7	0.24			
,	Total	10.5	160.2	93.6	79.8	11.2			

Taluk level Residue-wise Data for Amloh ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane	Tops & Leaves	0.42	31.0	1.6	0.39	0.054		
Total		0.42	31.0	1.6	0.39	0.054		

Taluk level Residue-wise Data for Bassi Pathana; Season: Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane Tops & Leaves		0.97	71.2	3.6	0.89	0.12		
7	Fotal	0.97	71.2	3.6	0.89	0.12		

Taluk level Residue-wise Data for Fatehgarh Sahib; Season: Yearly								
Crop	Crop Residue		Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Sugarcane	Tops & Leaves	2.9	213.5	10.7	2.7	0.37		
7	Γotal	2.9	213.5	10.7	2.7	0.37		

Taluk level Residue-wise Data for Khamanon; Season: Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane Tops & Leaves		0.80	59.0	3.0	0.74	0.10		
	Γotal	0.80	59.0	3.0	0.74	0.10		

Taluk level Residue-wise Data for Abohar; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	77.6	206.3	294.8	265.3	37.1			
Cotton	Bollshell	77.6	206.3	227.0	204.3	28.6			
Cotton	Husk	77.6	206.3	227.0	204.3	28.6			
Sugarcane	Tops & Leaves	5.1	294.0	14.7	3.7	0.51			
	Fotal	82.6	500.3	763.4	677.5	94.9			

Ta	Taluk level Residue-wise Data for Fazilka; Season: Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	44.1	117.3	167.5	150.8	21.1				
Cotton	Bollshell	44.1	117.3	129.0	116.1	16.3				
Cotton Husk		44.1	117.3	129.0	116.1	16.3				
Sugarcane Tops & Leaves		0.72	42.1	2.1	0.53	0.074				
	Fotal	44.8	159.4	427.6	383.5	53.7				

Ta	Taluk level Residue-wise Data for Firozpur; Season: Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	7.1	18.9	27.0	24.3	3.4				
Cotton	Bollshell	7.1	18.9	20.8	18.7	2.6				
Cotton	Husk	7.1	18.9	20.8	18.7	2.6				
Sugarcane Tops & Leaves		2.3	134.2	6.7	1.7	0.23				
	Fotal	9.4	153.1	75.3	63.4	8.9				

Tal	Taluk level Residue-wise Data for Jalalabad; Season: Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	11.6	30.9	44.2	39.8	5.6				
Cotton	Bollshell	11.6	30.9	34.0	30.6	4.3				
Cotton	Husk	11.6	30.9	34.0	30.6	4.3				
Sugarcane Tops & Leaves		0.54	31.7	1.6	0.40	0.055				
	Fotal	12.2	62.6	113.8	101.4	14.2				

	Taluk level Residue-wise Data for Zira; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	4.5	12.1	17.3	15.6	2.2				
Cotton	Bollshell	4.5	12.1	13.3	12.0	1.7				
Cotton	Husk	4.5	12.1	13.3	12.0	1.7				
Sugarcane	Tops & Leaves	0.52	30.3	1.5	0.38	0.053				
r	Γotal	5.1	42.4	45.4	39.9	5.6				

Taluk level Residue-wise Data for Batala ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	3.2	216.5	10.8	2.7	0.38		
Total		3.2	216.5	10.8	2.7	0.38		

Talul	Taluk level Residue-wise Data for Dera Baba Nanak ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Others	Others	0.41	28.3	1.4	0.35	0.050			
To	otal	0.41	1.4	0.35	0.050				

Taluk level Residue-wise Data for Dhar Kalan; Season: Yearly							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential	
Sugarcane	Tops & Leaves	2.7	182.6	9.1	2.3	0.32	
Total		2.7	182.6	9.1	2.3	0.32	

Taluk level Residue-wise Data for Gurdaspur; Season: Yearly							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Potential	
Sugarcane	Tops & Leaves	13.5	918.1	45.9	11.5	1.6	
Total		13.5	918.1	45.9	11.5	1.6	

Talı	Taluk level Residue-wise Data for Pathankot; Season: Yearly							
Crop		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane	Tops & Leaves	3.4	228.7	11.4	2.9	0.40		
Total		3.4	228.7	11.4	2.9	0.40		

Taluk level Residue-wise Data for Dasua ; Season : Yearly							
Crop	L OCIDIIO	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential	
Sugarcane	Tops & Leaves	8.4	515.3	25.8	6.4	0.90	
Total		8.4	515.3	25.8	6.4	0.90	

Taluk level Residue-wise Data for Garhshankar; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	5.7	348.0	17.4	4.4	0.61		
Others	Others	0.00060	0.0017	0.0059	0.0053	0.00075		
7	Fotal	5.7	348.0	17.4	4.4	0.61		

Taluk level Residue-wise Data for Hoshiarpur; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	2.0	120.1	6.0	1.5	0.21		
Others	Others	0.045	0.12	0.45	0.40	0.056		
r	Γotal	2.0	120.2	6.4	1.9	0.27		

Taluk level Residue-wise Data for Mukerian; Season: Yearly							
Crop		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential	
Sugarcane	Tops & Leaves	5.1	314.6	15.7	3.9	0.55	
Total		5.1	314.6	15.7	3.9	0.55	

Talu	Taluk level Residue-wise Data for Jalandhar-I; Season: Yearly							
Crop		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane	Tops & Leaves	3.5	218.7	10.9	2.7	0.38		
Total		3.5	218.7	10.9	2.7	0.38		

Taluk level Residue-wise Data for Jalandhar-Ii; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Cotton	Stalks	0.45	1.3	1.7	1.5	0.22		
Sugarcane	Tops & Leaves	1.7	105.2	5.3	1.3	0.18		
Cotton	Bollshell	0.45	1.3	1.4	1.3	0.18		
Cotton	Husk	0.45	1.3	1.4	1.3	0.18		
Total 2.1			106.5	9.8	5.4	0.76		

Tal	Taluk level Residue-wise Data for Nakodar; Season: Yearly							
Crop	Residue	Area (kHa)	Production	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane	Tops & Leaves	3.5	218.2	10.9	2.7	0.38		
7	Total		218.2	10.9	2.7	0.38		

Ta	Taluk level Residue-wise Data for Phillaur ; Season : Yearly							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	4.2	263.3	13.2	3.3	0.46		
Others	Others	0.018	0.052	0.18	0.17	0.023		
Total 4			263.3	13.3	3.5	0.48		

Ta	Taluk level Residue-wise Data for Shahkot; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sugarcane	Tops & Leaves	3.1	193.2	9.7	2.4	0.34				
Cotton	Stalks	0.24	0.69	0.92	0.83	0.12				
Cotton	Bollshell	0.24	0.69	0.76	0.69	0.096				
Cotton	Husk	0.24	0.69	0.76	0.69	0.096				
Total		3.3	193.9	12.1	4.6	0.65				

Taluk level Residue-wise Data for Bhulath; Season: Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane Tops & Leaves		0.49	30.2	1.5	0.38	0.053		
Total		0.49	30.2	1.5	0.38	0.053		

Taluk level Residue-wise Data for Kapurthala ; Season : Yearly								
Crop	Crop Residue		Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Sugarcane Tops & Leaves		135.5	6.8	1.7	0.24		
Others Others		0.088	0.24	0.86	0.78	0.11		
r	Γotal	2.3	135.8	7.6	2.5	0.35		

Taluk level Residue-wise Data for Phagwara; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)			
Sugarcane	Tops & Leaves	2.8	171.9	8.6	2.1	0.30		
Others Others		0.0028	0.0074	0.027	0.024	0.0034		
7	Γotal	2.8	171.9	8.6	2.2	0.30		

Taluk level Residue-wise Data for Sultanpur Lodhi ; Season : Yearly								
Crop	Crop Residue		Production	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane Tops & Leaves		0.66	41.1	2.1	0.51	0.072		
Total		0.66	41.1	2.1	0.51	0.072		

Taluk level Residue-wise Data for Jagraon; Season: Yearly								
Crop	Crop Residue		Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	0.74	49.5	2.5	0.62	0.087		
Others Others		0.040	0.11	0.38	0.35	0.048		
7	Γotal	0.78	49.6	2.9	0.96	0.14		

Tah	Taluk level Residue-wise Data for Ludhiana(East); Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	0.88	2.3	3.3	3.0	0.42			
Cotton	Bollshell	0.88	2.3	2.5	2.3	0.32			
Cotton	Husk	0.88	2.3	2.5	2.3	0.32			
T	otal	0.88	2.3	8.4	7.6	1.1			

Т	Taluk level Residue-wise Data for Payal; Season: Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sugarcane	Tops & Leaves	6.0	405.6	20.3	5.1	0.71				
Cotton	Stalks	0.82	2.2	3.1	2.8	0.39				
Cotton	Bollshell	0.82	2.2	2.4	2.1	0.30				
Cotton	Husk	0.82	2.2	2.4	2.1	0.30				
	Fotal	6.8	407.7	28.1	12.1	1.7				

	Taluk level Residue-wise Data for Raikot; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Others	Others	0.31	21.1	1.1	0.26	0.037			
T	otal	0.31	21.1	1.1	0.26	0.037			

Taluk level Residue-wise Data for Samrala; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Potential		
Sugarcane Tops & Leaves		1.1	72.1	3.6	0.90	0.13		
Total		1.1	72.1	3.6	0.90	0.13		

Talu	Taluk level Residue-wise Data for Budhlada; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)					
Cotton	Stalks	11.8	32.2	45.0	40.5	5.7				
Cotton	Bollshell	11.8	32.2	35.4	31.9	4.5				
Cotton	Husk	11.8	32.2	35.4	31.9	4.5				
T	Total		32.2	115.7	104.2	14.6				

Ta	Taluk level Residue-wise Data for Mansa; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	33.8	91.9	128.4	115.6	16.2				
Cotton	Bollshell	33.8	91.9	101.1	91.0	12.7				
Cotton	Husk	33.8	91.9	101.1	91.0	12.7				
Others	Others	0.0014	0.100	0.0050	0.0012	0.00017				
T	otal	33.8	92.0	330.7	297.6	41.7				

Talul	Taluk level Residue-wise Data for Sardulgarh ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	42.7	116.1	162.2	146.0	20.4				
Cotton	Bollshell	42.7	116.1	127.7	115.0	16.1				
Cotton	Husk	42.7	116.1	127.7	115.0	16.1				
Others	Others	0.025	1.8	0.088	0.022	0.0031				
Total		42.7	117.9	417.8	376.0	52.6				

Taluk	Taluk level Residue-wise Data for Bagha Purana ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	2.2	5.5	8.4	7.5	1.1				
Cotton	Bollshell	2.2	5.5	6.0	5.4	0.76				
Cotton	Husk	2.2	5.5	6.0	5.4	0.76				
Others	Others	0.38	28.2	1.4	0.35	0.049				
Total		2.6	33.6	21.8	18.7	2.6				

Т	Taluk level Residue-wise Data for Moga; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	8.4	20.9	32.1	28.9	4.0			
Cotton	Bollshell	8.4	20.9	23.0	20.7	2.9			
Cotton	Husk	8.4	20.9	23.0	20.7	2.9			
Sugarcane	Tops & Leaves	1.7	124.1	6.2	1.6	0.22			
7	Γotal	10.1	145.0	84.4	71.9	10.1			

Talu	Taluk level Residue-wise Data for Nihal Singhwala ; Season : Yearly								
Crop Residue Area (kHa) Crop Production (kT/Yr) Biomass Generation (kT/Yr) Potential (MWe) Potential (MWe)									
Cotton	Stalks	3.7	9.2	14.0	12.6	1.8			
Cotton	Bollshell	3.7	9.2	10.1	9.1	1.3			
Cotton	Husk	3.7	9.2	10.1	9.1	1.3			
T	otal	3.7	9.2	34.2	30.8	4.3			

Talu	Taluk level Residue-wise Data for Giddarbaha; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)				
Cotton	Stalks	41.0	110.3	155.8	140.2	19.6			
Cotton	Bollshell	41.0	110.3	121.3	109.2	15.3			
Cotton	Husk	41.0	110.3	121.3	109.2	15.3			
Sugarcane	Tops & Leaves	3.2	241.1	12.1	3.0	0.42			
Total		44.2	351.4	410.5	361.6	50.6			

Ta	Taluk level Residue-wise Data for Malout; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	60.3	162.1	229.0	206.1	28.9				
Cotton	Bollshell	60.3	162.1	178.3	160.5	22.5				
Cotton	Husk	60.3	162.1	178.3	160.5	22.5				
Sugarcane	Tops & Leaves	0.63	47.8	2.4	0.60	0.084				
,	Fotal	60.9	209.9	588.0	527.6	73.9				

Taluk level Residue-wise Data for Muktsar; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Cotton	Stalks	24.3	65.3	92.3	83.0	11.6		
Cotton	Bollshell	24.3	65.3	71.9	64.7	9.1		
Cotton	Husk	24.3	65.3	71.9	64.7	9.1		
Sugarcane	Tops & Leaves	1.2	93.8	4.7	1.2	0.16		
Total		25.5	159.1	240.7	213.6	29.9		

Ta	Taluk level Residue-wise Data for Balachaur ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Sugarcane	Tops & Leaves	4.7	277.9	13.9	3.5	0.49			
Others	Others	0.00068	0.0017	0.0064	0.0058	0.00081			
7	Fotal	4.7	277.9	13.9	3.5	0.49			

Taluk level Residue-wise Data for Nawanshahr ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	7.5	447.1	22.4	5.6	0.78		
Others	Others	0.045	0.11	0.42	0.38	0.053		
7	Γotal	7.5	447.2	22.8	6.0	0.84		

Taluk level Residue-wise Data for Dera Bassi ; Season : Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Cotton	Stalks	0.39	1.0	1.5	1.3	0.19		
Cotton	Bollshell	0.39	1.0	1.1	1.0	0.14		
Cotton	Husk	0.39	1.0	1.1	1.0	0.14		
Sugarcane	Tops & Leaves	0.43	30.4	1.5	0.38	0.053		
Total		0.82	31.4	5.3	3.8	0.53		

T	Taluk level Residue-wise Data for Nabha; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sugarcane	Tops & Leaves	3.9	273.8	13.7	3.4	0.48				
Cotton	Stalks	0.50	1.3	1.9	1.7	0.24				
Cotton	Bollshell	0.50	1.3	1.5	1.3	0.19				
Cotton	Husk	0.50	1.3	1.5	1.3	0.19				
	Total		275.1	18.5	7.8	1.1				

Talu	Taluk level Residue-wise Data for Rajpura ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)					
Others	Others	0.027	0.071	0.26	0.23	0.032				
Total		0.027	0.071	0.26	0.23	0.032				

Taluk level Residue-wise Data for Samana; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential		
Sugarcane	Tops & Leaves	0.76	53.6	2.7	0.67	0.094		
Total		0.76	53.6	2.7	0.67	0.094		

Taluk level Residue-wise Data for Anandpur Sahib; Season: Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential		
Sugarcane	Tops & Leaves	4.1	225.2	11.3	2.8	0.39		
Others Others		0.046	0.13	0.45	0.41	0.057		
7	Γotal	4.2	225.3	11.7	3.2	0.45		

Ta	Taluk level Residue-wise Data for Kharar; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential			
Sugarcane Tops & Leaves		2.1	112.8	5.6	1.4	0.20			
7	Fotal	2.1	112.8	5.6	1.4	0.20			

Taluk level Residue-wise Data for Rupnagar; Season: Yearly							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Potential	
Sugarcane	Tops & Leaves	1.8	95.7	4.8	1.2	0.17	
7	Γotal	1.8	95.7	4.8	1.2	0.17	

Taluk lev	Taluk level Residue-wise Data for S.A.S.Nagar(Mohali); Season: Yearly								
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Surplus	Potential			
Sugarcane Tops & Leaves		2.2	119.5	6.0	1.5	0.21			
	Γotal	2.2	119.5	6.0	1.5	0.21			

Ta	Taluk level Residue-wise Data for Barnala ; Season : Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	3.3	8.8	12.7	11.4	1.6				
Cotton	Bollshell	3.3	8.8	9.7	8.8	1.2				
Cotton	Husk	3.3	8.8	9.7	8.8	1.2				
Sugarcane	Tops & Leaves	3.0	210.7	10.5	2.6	0.37				
•	Fotal	6.4	219.5	42.7	31.6	4.4				

Ta	Taluk level Residue-wise Data for Dhuri ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)					
Cotton	Stalks	8.0	21.1	30.4	27.3	3.8				
Cotton	Bollshell	8.0	21.1	23.2	20.9	2.9				
Cotton	Husk	8.0	21.1	23.2	20.9	2.9				
Total		8.0	21.1	76.8	69.2	9.7				

Taluk level Residue-wise Data for Malerkotla ; Season : Yearly									
Crop Residue		Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	2.8	7.4	10.7	9.6	1.3			
Cotton	Bollshell	2.8	7.4	8.2	7.4	1.0			
Cotton	Husk	2.8	7.4	8.2	7.4	1.0			
Sugarcane	Tops & Leaves	0.99	68.4	3.4	0.86	0.12			
•	Fotal	3.8	75.9	30.5	25.2	3.5			

Talı	Taluk level Residue-wise Data for Moonak; Season: Yearly								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)				
Cotton	Stalks	0.65	1.7	2.5	2.2	0.31			
Cotton	Bollshell	0.65	1.7	1.9	1.7	0.24			
Cotton	Husk	0.65	1.7	1.9	1.7	0.24			
T	Total		1.7	6.3	5.6	0.79			

Tal	Taluk level Residue-wise Data for Sangrur ; Season : Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	7.6	20.1	28.9	26.0	3.6				
Cotton	Bollshell	7.6	20.1	22.1	19.9	2.8				
Cotton	Husk	7.6	20.1	22.1	19.9	2.8				
T	Total		20.1	73.0	65.7	9.2				

Tal	Taluk level Residue-wise Data for Sunam; Season: Yearly									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	5.6	14.8	21.3	19.2	2.7				
Cotton	Bollshell	5.6	14.8	16.3	14.7	2.1				
Cotton	Husk	5.6	14.8	16.3	14.7	2.1				
T	Total		14.8	54.0	48.6	6.8				

Agro

State Level Residue Wise

Sta	State level Residue-wise Data for Punjab; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	2502.5	8872.9	13309.4	10647.5	1277.7				
Wheat	Stalks	3435.1	15568.9	23353.3	4670.7	607.2				
Wheat	Pod	3435.1	15568.9	4670.7	2335.3	326.9				
Cotton	Stalks	605.0	1647.1	2299.0	2069.1	289.7				
Cotton	Husk	605.0	1647.1	1811.8	1630.6	228.3				
Cotton	Bollshell	605.0	1647.1	1811.8	1630.6	228.3				
Paddy	Husk	2502.5	8872.9	1774.6	1419.7	156.2				
Maize	Stalks	165.5	452.7	905.4	181.1	23.5				
Sugarcane	Tops & Leaves	142.2	9255.1	462.8	115.7	16.2				
Maize	Cobs	165.5	452.7	226.3	67.9	9.5				
Mustard	Stalks	40.2	49.0	88.1	44.1	5.7				
Mustard	Husk	40.2	49.0	44.1	41.9	5.0				
Barley	Stalks	17.4	60.5	78.7	7.9	1.0				
Arhar	Stalks	5.7	4.8	11.9	3.6	0.46				
Sunflower	Stalks	5.7	8.1	16.3	3.3	0.42				
Til	Stalks	20.9	7.8	19.5	1.9	0.25				
Gram	Stalks	2.4	1.9	2.0	1.8	0.24				
Groundnut	Stalks	4.7	4.2	8.5	1.7	0.22				
Moong	Stalks	22.8	13.1	14.4	1.4	0.19				
Bajra	Stalks	6.6	6.2	12.4	1.2	0.16				
Bajra	Cobs	6.6	6.2	2.0	1.0	0.13				
Others	Others	5.1	3.5	9.4	0.98	0.12				
Groundnut	Shell	4.7	4.2	1.3	0.89	0.11				
Bajra	Husk	6.6	6.2	1.9	0.46	0.056				
7	Γotal	6981.8	35955.7	50935.4	24880.3	3177.6				

State Level District Wise

State level Di	strict-wise	Data for Pu	njab ; Bioma	ss Class :	Agro
District	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Firozpur	788.6	3467.7	5940.7	3217.3	420.1
Sangrur	793.9	3666.3	6100.5	2992.0	373.2
Bathinda	503.2	1806.9	3911.4	2335.4	315.0
Amritsar	718.2	3386.4	4804.0	2109.9	262.5
Muktsar	403.9	1813.9	3182.7	1817.9	244.9
Ludhiana	519.4	2810.3	4028.4	1875.3	232.0
Patiala	529.1	2608.2	3985.4	1851.2	229.0
Mansa	329.1	1167.4	2509.3	1422.1	189.9
Moga	342.2	1558.1	2550.0	1271.3	158.7
Gurdaspur	455.4	3191.0	2953.5	1274.0	158.7
Jalandhar	340.6	2290.1	2372.8	1012.7	126.3
Faridkot	226.0	1205.6	1735.2	913.3	118.6
Kapurthala	232.0	1299.3	1650.9	754.3	93.4
Fatehgarh Sahib	173.2	1123.8	1335.3	635.8	78.4
Hoshiarpur	295.7	2175.0	1763.9	590.4	75.3
Rupnagar	184.5	1141.8	1118.5	429.0	54.0
Nawanshahr	146.9	1244.1	992.8	378.2	47.7
Total	6981.8	35955.7	50935.4	24880.3	3177.6

State Level Taluk Wise

State level Taluk-wise Data for Punjab; Biomass Class: Agro									
District	Taluk	Area (Kha)	Crop Production (Kt/Yr)	Biomass Generation (Kt/Yr)	Biomass Surplus (Kt/Yr)	Power Potential (Mwe)			
Bathinda	Talwandi Sabo	245.1	850.5	1904.9	1291.1	171.2			
Firozpur	Abohar	234.1	1079.4	1785.6	1182.5	156.9			
Firozpur	Fazilka	182.6	696.5	1366.3	903.3	117.0			
Sangrur	Barnala	243.3	1245.6	1845.0	877.9	108.9			
Muktsar	Malout	182.8	695.5	1450.5	868.9	116.7			
Faridkot	Faridkot	177.1	879.8	1344.4	744.4	95.9			
Moga	Moga	171.8	802.0	1228.1	727.9	89.7			

District	Taluk	Area (Kha)	Crop Production (Kt/Yr)	Biomass Generation (Kt/Yr)	Biomass Surplus (Kt/Yr)	Power Potential (Mwe)
Patiala	Patiala	185.5	796.3	1401.5	655.3	80.9
Firozpur	Jalalabad	170.1	701.8	1242.5	613.7	77.7
Mansa	Sardulgarh	104.9	344.3	812.6	610.8	81.1
Gurdaspur	Gurdaspur	217.3	1691.2	1422.6	595.1	74.3
Muktsar	Giddarbaha	133.5	715.6	1060.8	562.4	76.6
Patiala	Rajpura	155.2	657.9	1157.3	560.0	69.0
Sangrur	Sangrur	147.5	632.5	1148.2	546.9	68.8
Mansa	Mansa	130.8	469.5	1004.5	532.5	71.6
Bathinda	Bathinda	139.2	537.4	1063.0	526.9	72.3
Amritsar	Tarn-Taran	175.9	814.8	1191.0	524.3	65.1
Bathinda	Rampura Phul	118.8	418.9	943.5	517.3	71.5
Amritsar	Patti	173.2	661.1	1168.2	516.3	64.1
Ludhiana	Jagraon	128.9	615.4	1011.4	457.4	56.6
Sangrur	Moonak	122.0	531.5	935.9	457.2	56.4
Sangrur	Sunam	95.0	387.8	700.0	430.2	53.0
Jalandhar	Phillaur	129.3	751.0	880.4	408.5	50.5
Muktsar	Muktsar	87.6	402.7	671.4	386.6	51.6
Sangrur	Malerkotla	98.2	491.2	760.3	360.8	45.0
Moga	Nihal Singhwala	95.9	397.5	717.6	350.6	43.8
Kapurthala	Kapurthala	104.5	549.9	740.8	342.8	42.4
Gurdaspur	Batala	113.2	617.4	721.5	337.1	41.6
Firozpur	Firozpur	134.7	682.9	1026.8	337.0	44.6
Ludhiana	Ludhiana(East)	89.8	398.2	705.3	334.2	41.4
Fatehgarh Sahib	Fatehgarh Sahib	92.3	614.6	716.9	332.2	41.1
Sangrur	Dhuri	87.8	377.7	711.0	319.0	41.0
Amritsar	Ajnala	108.8	419.2	744.6	312.8	39.0
Nawanshahr	Nawanshahr	104.9	813.8	696.0	287.4	35.9
Ludhiana	Samrala	78.4	420.4	616.5	284.0	35.1
Mansa	Budhlada	93.5	353.5	692.2	278.9	37.2
Patiala	Nabha	73.6	573.3	543.3	250.7	31.1
Ludhiana	Payal	70.6	690.7	526.9	232.3	29.0
Ludhiana	Ludhiana(West)	62.4	274.2	482.3	225.7	27.9
Amritsar	Baba Bakala	83.7	718.9	522.6	221.9	27.7
Amritsar	Amritsar-I	69.9	263.1	475.6	216.2	27.1
Gurdaspur	Pathankot	74.8	478.6	454.6	216.1	26.7
Hoshiarpur	Mukerian	89.1	578.3	499.9	215.5	26.8

District	Taluk	Area (Kha)	Crop Production (Kt/Yr)	Biomass Generation (Kt/Yr)	Biomass Surplus (Kt/Yr)	Power Potential (Mwe)
Jalandhar	Nakodar	70.8	488.4	492.9	215.4	26.8
Patiala	Dera Bassi	54.8	254.2	394.7	212.2	26.0
Ludhiana	Raikot	57.3	273.7	445.4	210.2	25.9
Kapurthala	Sultanpur Lodhi	57.0	261.3	389.7	209.5	25.6
Amritsar	Amritsar-Ii	73.0	396.6	506.3	197.9	24.9
Moga	Bagha Purana	74.5	358.6	604.4	192.8	25.2
Jalandhar	Jalandhar-I	66.5	465.7	457.8	191.9	24.0
Hoshiarpur	Hoshiarpur	109.3	467.2	720.9	190.4	24.9
Rupnagar	Rupnagar	77.3	351.8	476.0	190.2	23.8
Firozpur	Zira	67.1	307.1	519.5	180.9	23.9
Patiala	Samana	60.0	326.5	488.5	173.0	22.0
Faridkot	Jaitu	49.0	325.8	390.8	168.9	22.7
Kapurthala	Phagwara	47.2	354.3	332.9	145.9	18.1
Ludhiana	Khanna	32.0	137.7	240.7	131.4	16.0
Fatehgarh Sahib	Bassi Pathana	34.3	218.0	261.1	130.6	16.0
Amritsar	Khadur Sahib	33.8	112.7	195.6	120.5	14.6
Rupnagar	Anandpur Sahib	49.6	377.6	294.3	117.2	14.7
Jalandhar	Shahkot	44.2	372.0	334.3	108.0	13.9
Fatehgarh Sahib	Khamanon	21.9	145.3	150.6	107.6	12.9
Hoshiarpur	Garhshankar	46.9	472.8	264.0	92.7	11.8
Gurdaspur	Dera Baba Nanak	38.0	187.4	286.6	92.5	11.9
Hoshiarpur	Dasua	50.5	656.7	279.1	91.7	11.8
Nawanshahr	Balachaur	42.0	430.4	296.8	90.8	11.8
Jalandhar	Jalandhar-Ii	29.9	212.9	207.4	88.8	11.1
Rupnagar	Kharar	39.7	237.1	239.0	88.7	11.2
Fatehgarh Sahib	Amloh	24.7	145.9	206.7	65.5	8.4
Kapurthala	Bhulath	23.3	133.7	187.4	56.2	7.3
Gurdaspur	Dhar Kalan	12.2	216.5	68.3	33.4	4.1
Rupnagar	S.A.S.Nagar(Mohali)	17.8	175.2	109.1	33.0	4.3
,	Fotal	6981.8	35955.7	50935.4	24880.3	3177.6

District Level Residue Wise

Dist	District level Residue-wise Data for Amritsar; Biomass Class : Agro							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	319.0	958.1	1437.1	1149.7	138.0		
Wheat	Stalks	363.0	1700.0	2550.1	510.0	66.3		
Wheat	Pod	363.0	1700.0	510.0	255.0	35.7		
Paddy	Husk	319.0	958.1	191.6	153.3	16.9		
Sugarcane	Tops & Leaves	10.2	697.4	34.9	8.7	1.2		
Cotton	Stalks	2.0	5.4	7.7	7.0	0.98		
Maize	Stalks	6.0	15.0	30.0	6.0	0.78		
Cotton	Bollshell	2.0	5.4	5.9	5.3	0.74		
Cotton	Husk	2.0	5.4	5.9	5.3	0.74		
Maize	Cobs	6.0	15.0	7.5	2.3	0.32		
Mustard	Stalks	2.6	2.7	4.8	2.4	0.31		
Mustard	Husk	2.6	2.7	2.4	2.3	0.27		
Arhar	Stalks	1.4	1.2	3.0	0.90	0.12		
Til	Stalks	9.0	3.1	7.8	0.78	0.10		
Others	Others	4.3	3.0	4.8	0.53	0.068		
Gram	Stalks	0.51	0.44	0.49	0.44	0.057		
,	Fotal	718.2	3386.4	4804.0	2109.9	262.5		

Dis	District level Residue-wise Data for Bathinda; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	162.1	462.0	616.0	554.4	77.6			
Cotton	Bollshell	162.1	462.0	508.2	457.4	64.0			
Cotton	Husk	162.1	462.0	508.2	457.4	64.0			
Paddy	Straw	82.5	308.7	463.0	370.4	44.4			
Wheat	Stalks	243.0	949.1	1423.6	284.7	37.0			
Wheat	Pod	243.0	949.1	284.7	142.4	19.9			
Paddy	Husk	82.5	308.7	61.7	49.4	5.4			
Mustard	Stalks	7.3	8.9	16.1	8.0	1.0			
Mustard	Husk	7.3	8.9	8.0	7.6	0.92			
Others	Others	3.7	2.3	4.9	1.2	0.16			

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Barley	Stalks	3.0	8.5	11.0	1.1	0.14
Sugarcane	Tops & Leaves	1.0	66.1	3.3	0.83	0.12
Maize	Stalks	0.46	1.3	2.6	0.52	0.068
Total		503.2	1806.9	3911.4	2335.4	315.0

District level Residue-wise Data for Faridkot; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	70.0	267.6	401.5	321.2	38.5		
Wheat	Stalks	112.0	500.3	750.5	150.1	19.5		
Cotton	Stalks	36.1	96.9	137.2	123.5	17.3		
Cotton	Bollshell	36.1	96.9	106.6	96.0	13.4		
Cotton	Husk	36.1	96.9	106.6	96.0	13.4		
Wheat	Pod	112.0	500.3	150.1	75.0	10.5		
Paddy	Husk	70.0	267.6	53.5	42.8	4.7		
Sugarcane	Tops & Leaves	3.8	334.7	16.7	4.2	0.59		
Mustard	Stalks	1.2	1.9	3.4	1.7	0.22		
Mustard	Husk	1.2	1.9	1.7	1.6	0.20		
Others	Others	2.5	2.8	4.8	0.77	0.10		
Maize	Stalks	0.45	1.3	2.6	0.51	0.067		
	Fotal	226.0	1205.6	1735.2	913.3	118.6		

District level Residue-wise Data for Fatehgarh Sahib; Biomass Class : Agro							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Paddy	Straw	81.0	323.9	485.8	388.7	46.6	
Wheat	Stalks	85.0	418.7	628.0	125.6	16.3	
Wheat	Pod	85.0	418.7	125.6	62.8	8.8	
Paddy	Husk	81.0	323.9	64.8	51.8	5.7	
Sugarcane	Tops & Leaves	5.1	374.8	18.7	4.7	0.66	
Maize	Stalks	1.0	3.2	6.5	1.3	0.17	
Maize	Cobs	1.0	3.2	1.6	0.49	0.068	
Barley	Stalks	0.94	3.2	4.2	0.42	0.054	
Others	Others	0.13	0.087	0.18	0.035	0.0044	
,	Total	173.2	1123.8	1335.3	635.8	78.4	

Dist	District level Residue-wise Data for Firozpur; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	230.4	865.0	1297.5	1038.0	124.6			
Cotton	Stalks	144.9	385.6	550.8	495.7	69.4			
Wheat	Stalks	383.1	1661.0	2491.6	498.3	64.8			
Cotton	Bollshell	144.9	385.6	424.1	381.7	53.4			
Cotton	Husk	144.9	385.6	424.1	381.7	53.4			
Wheat	Pod	383.1	1661.0	498.3	249.2	34.9			
Paddy	Husk	230.4	865.0	173.0	138.4	15.2			
Mustard	Stalks	11.4	14.7	26.4	13.2	1.7			
Mustard	Husk	11.4	14.7	13.2	12.5	1.5			
Sugarcane	Tops & Leaves	9.2	532.3	26.6	6.7	0.93			
Others	Others	7.9	3.9	7.4	0.96	0.13			
Barley	Stalks	1.3	4.0	5.2	0.52	0.068			
Maize	Stalks	0.45	1.3	2.6	0.51	0.066			
•	Fotal	788.6	3467.7	5940.7	3217.3	420.1			

Distr	District level Residue-wise Data for Gurdaspur; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	194.1	571.3	857.0	685.6	82.3			
Wheat	Stalks	217.2	1012.1	1518.1	303.6	39.5			
Wheat	Pod	217.2	1012.1	303.6	151.8	21.3			
Paddy	Husk	194.1	571.3	114.3	91.4	10.1			
Sugarcane	Tops & Leaves	23.1	1574.2	78.7	19.7	2.8			
Maize	Stalks	13.0	26.6	53.3	10.7	1.4			
Maize	Cobs	13.0	26.6	13.3	4.0	0.56			
Mustard	Stalks	3.5	3.7	6.6	3.3	0.43			
Mustard	Husk	3.5	3.7	3.3	3.1	0.38			
Others	Others	4.5	3.1	5.4	0.86	0.11			
	Fotal	455.4	3191.0	2953.5	1274.0	158.7			

District level Residue-wise Data for Hoshiarpur; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	60.5	172.2	258.3	206.6	24.8		
Wheat	Stalks	139.9	505.8	758.6	151.7	19.7		
Wheat	Pod	139.9	505.8	151.7	75.9	10.6		
Maize	Stalks	65.3	190.2	380.5	76.1	9.9		
Maize	Cobs	65.3	190.2	95.1	28.5	4.0		
Paddy	Husk	60.5	172.2	34.4	27.5	3.0		
Sugarcane	Tops & Leaves	21.1	1298.0	64.9	16.2	2.3		
Mustard	Stalks	2.5	2.5	4.6	2.3	0.30		
Mustard	Husk	2.5	2.5	2.3	2.2	0.26		
Groundnut	Stalks	2.9	2.7	5.4	1.1	0.14		
Others	Others	2.2	1.7	3.4	0.94	0.13		
Sunflower	Stalks	1.2	2.0	3.9	0.78	0.10		
Groundnut	Shell	2.9	2.7	0.81	0.57	0.068		
	Γotal	295.7	2175.0	1763.9	590.4	75.3		

Distr	District level Residue-wise Data for Jalandhar; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	132.0	444.8	667.3	533.8	64.1			
Wheat	Stalks	167.2	786.4	1179.6	235.9	30.7			
Wheat	Pod	167.2	786.4	235.9	118.0	16.5			
Paddy	Husk	132.0	444.8	89.0	71.2	7.8			
Maize	Stalks	16.3	49.3	98.6	19.7	2.6			
Sugarcane	Tops & Leaves	16.0	998.5	49.9	12.5	1.7			
Maize	Cobs	16.3	49.3	24.6	7.4	1.0			
Mustard	Stalks	2.1	3.0	5.3	2.7	0.35			
Cotton	Stalks	0.71	2.0	2.7	2.4	0.34			
Mustard	Husk	2.1	3.0	2.7	2.5	0.30			
Cotton	Bollshell	0.71	2.0	2.2	2.0	0.28			
Cotton	Husk	0.71	2.0	2.2	2.0	0.28			
Sunflower	Stalks	2.6	3.6	7.1	1.4	0.19			
Arhar	Stalks	1.0	0.92	2.3	0.69	0.089			
Others	Others	2.6	1.5	3.3	0.43	0.056			
7	Γotal	340.6	2290.1	2372.8	1012.7	126.3			

Distri	District level Residue-wise Data for Kapurthala; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	105.1	364.9	547.4	437.9	52.5			
Wheat	Stalks	114.0	538.3	807.5	161.5	21.0			
Wheat	Pod	114.0	538.3	161.5	80.7	11.3			
Paddy	Husk	105.1	364.9	73.0	58.4	6.4			
Maize	Stalks	4.0	13.8	27.6	5.5	0.72			
Sugarcane	Tops & Leaves	6.1	378.8	18.9	4.7	0.66			
Maize	Cobs	4.0	13.8	6.9	2.1	0.29			
Mustard	Stalks	0.82	1.1	1.9	0.95	0.12			
Others	Others	0.65	0.49	1.4	0.87	0.12			
Mustard	Husk	0.82	1.1	0.95	0.90	0.11			
Sunflower	Stalks	1.3	1.9	3.8	0.76	0.099			
r	Γotal	232.0	1299.3	1650.9	754.3	93.4			

Dist	District level Residue-wise Data for Ludhiana; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	235.2	916.4	1374.6	1099.7	132.0			
Wheat	Stalks	258.2	1309.7	1964.5	392.9	51.1			
Wheat	Pod	258.2	1309.7	392.9	196.5	27.5			
Paddy	Husk	235.2	916.4	183.3	146.6	16.1			
Sugarcane	Tops & Leaves	8.1	548.3	27.4	6.9	0.96			
Maize	Stalks	5.1	17.3	34.7	6.9	0.90			
Cotton	Stalks	1.7	4.6	6.6	5.9	0.83			
Cotton	Bollshell	1.7	4.6	5.0	4.5	0.63			
Cotton	Husk	1.7	4.6	5.0	4.5	0.63			
Mustard	Stalks	2.3	3.2	5.7	2.9	0.37			
Maize	Cobs	5.1	17.3	8.7	2.6	0.36			
Mustard	Husk	2.3	3.2	2.9	2.7	0.33			
Arhar	Stalks	2.3	1.9	4.6	1.4	0.18			
Barley	Stalks	2.0	6.7	8.7	0.87	0.11			
Others	Others	4.5	2.3	3.8	0.48	0.061			
•	Fotal	519.4	2810.3	4028.4	1875.3	232.0			

Distr	District level Residue-wise Data for Mansa; Biomass Class : Agro										
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Cotton	Stalks	88.3	240.2	335.6	302.1	42.3					
Paddy	Straw	69.3	246.9	370.3	296.3	35.6					
Cotton	Bollshell	88.3	240.2	264.3	237.8	33.3					
Cotton	Husk	88.3	240.2	264.3	237.8	33.3					
Wheat	Stalks	166.3	672.6	1008.8	201.8	26.2					
Wheat	Pod	166.3	672.6	201.8	100.9	14.1					
Paddy	Husk	69.3	246.9	49.4	39.5	4.3					
Mustard	Stalks	2.4	2.6	4.7	2.3	0.30					
Mustard	Husk	2.4	2.6	2.3	2.2	0.27					
Others	Others	2.4	3.9	5.3	0.96	0.13					
Maize	Stalks	0.45	1.3	2.5	0.51	0.066					
To	otal	329.1	1167.4	2509.3	1422.1	189.9					

Dis	District level Residue-wise Data for Moga; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	154.0	586.2	879.3	703.5	84.4			
Wheat	Stalks	167.0	778.9	1168.4	233.7	30.4			
Wheat	Pod	167.0	778.9	233.7	116.8	16.4			
Paddy	Husk	154.0	586.2	117.2	93.8	10.3			
Cotton	Stalks	14.3	35.6	54.5	49.1	6.9			
Cotton	Bollshell	14.3	35.6	39.1	35.2	4.9			
Cotton	Husk	14.3	35.6	39.1	35.2	4.9			
Sugarcane	Tops & Leaves	2.0	152.2	7.6	1.9	0.27			
Maize	Stalks	1.0	2.7	5.5	1.1	0.14			
Others	Others	3.8	2.4	4.1	0.57	0.073			
Maize	Cobs	1.0	2.7	1.4	0.41	0.057			
	Γotal	342.2	1558.1	2550.0	1271.3	158.7			

Dist	District level Residue-wise Data for Muktsar; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	125.5	337.7	477.1	429.4	60.1			
Cotton	Bollshell	125.5	337.7	371.5	334.3	46.8			
Cotton	Husk	125.5	337.7	371.5	334.3	46.8			
Paddy	Straw	66.3	243.4	365.1	292.1	35.1			
Wheat	Stalks	196.5	832.7	1249.1	249.8	32.5			
Wheat	Pod	196.5	832.7	249.8	124.9	17.5			
Paddy	Husk	66.3	243.4	48.7	38.9	4.3			
Sugarcane	Tops & Leaves	5.0	382.8	19.1	4.8	0.67			
Mustard	Stalks	2.6	3.6	6.4	3.2	0.42			
Mustard	Husk	2.6	3.6	3.2	3.0	0.37			
Others	Others	4.5	3.0	6.4	1.3	0.17			
Barley	Stalks	3.0	9.3	12.2	1.2	0.16			
Maize	Stalks	0.45	1.3	2.6	0.51	0.066			
	Γotal	403.9	1813.9	3182.7	1817.9	244.9			

Distri	District level Residue-wise Data for Nawanshahr; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	45.0	142.7	214.0	171.2	20.5			
Wheat	Stalks	71.1	324.5	486.8	97.4	12.7			
Wheat	Pod	71.1	324.5	97.4	48.7	6.8			
Maize	Stalks	18.2	51.5	102.9	20.6	2.7			
Paddy	Husk	45.0	142.7	28.5	22.8	2.5			
Sugarcane	Tops & Leaves	12.2	725.0	36.3	9.1	1.3			
Maize	Cobs	18.2	51.5	25.7	7.7	1.1			
Others	Others	0.42	0.40	1.1	0.75	0.099			
Total		146.9	1244.1	992.8	378.2	47.7			

Dis	District level Residue-wise Data for Patiala; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	251.0	908.5	1362.8	1090.2	130.8			
Wheat	Stalks	270.0	1334.7	2002.1	400.4	52.1			
Wheat	Pod	270.0	1334.7	400.4	200.2	28.0			
Paddy	Husk	251.0	908.5	181.7	145.4	16.0			
Sugarcane	Tops & Leaves	5.1	357.8	17.9	4.5	0.63			
Cotton	Stalks	0.92	2.4	3.5	3.1	0.44			
Cotton	Bollshell	0.92	2.4	2.7	2.4	0.34			
Cotton	Husk	0.92	2.4	2.7	2.4	0.34			
Maize	Stalks	2.0	4.7	9.3	1.9	0.24			
Maize	Cobs	2.0	4.7	2.3	0.70	0.098			
Others	Others	0.033	0.042	0.054	0.0054	0.00069			
r	Fotal	529.1	2608.2	3985.4	1851.2	229.0			

Distr	District level Residue-wise Data for Rupnagar; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	51.4	164.3	246.4	197.2	23.7			
Wheat	Stalks	89.6	353.3	529.9	106.0	13.8			
Wheat	Pod	89.6	353.3	106.0	53.0	7.4			
Maize	Stalks	29.2	66.3	132.6	26.5	3.4			
Paddy	Husk	51.4	164.3	32.9	26.3	2.9			
Maize	Cobs	29.2	66.3	33.2	9.9	1.4			
Sugarcane	Tops & Leaves	10.2	553.3	27.7	6.9	0.97			
Others	Others	3.0	3.6	7.1	1.5	0.19			
Mustard	Stalks	1.1	1.0	1.8	0.90	0.12			
Mustard	Husk	1.1	1.0	0.90	0.86	0.10			
ŗ	Γotal	184.5	1141.8	1118.5	429.0	54.0			

Dist	District level Residue-wise Data for Sangrur; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	355.7	1388.0	2082.0	1665.6	199.9				
Wheat	Stalks	392.1	1890.7	2836.1	567.2	73.7				
Wheat	Pod	392.1	1890.7	567.2	283.6	39.7				
Paddy	Husk	355.7	1388.0	277.6	222.1	24.4				
Cotton	Stalks	28.0	74.1	106.4	95.8	13.4				
Cotton	Bollshell	28.0	74.1	81.5	73.3	10.3				
Cotton	Husk	28.0	74.1	81.5	73.3	10.3				
Sugarcane	Tops & Leaves	4.0	279.1	14.0	3.5	0.49				
Barley	Stalks	5.8	23.9	31.1	3.1	0.40				
Maize	Stalks	2.0	5.6	11.1	2.2	0.29				
Others	Others	4.1	3.0	5.3	1.0	0.13				
Maize	Cobs	2.0	5.6	2.8	0.83	0.12				
Bajra	Stalks	2.1	2.0	4.0	0.40	0.052				
•	Fotal	793.9	3666.3	6100.5	2992.0	373.2				

District Level Taluk Wise

DistrictLevel Taluk-wise Data for Amritsar; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Tarn-Taran	175.9	814.8	1191.0	524.3	65.1				
Patti	173.2	661.1	1168.2	516.3	64.1				
Ajnala	108.8	419.2	744.6	312.8	39.0				
Baba Bakala	83.7	718.9	522.6	221.9	27.7				
Amritsar-I	69.9	263.1	475.6	216.2	27.1				
Amritsar-Ii	73.0	396.6	506.3	197.9	24.9				
Khadur Sahib	33.8	112.7	195.6	120.5	14.6				
Total	718.2	3386.4	4804.0	2109.9	262.5				

DistrictLevel Taluk-wise Data for Bathinda; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Talwandi Sabo	245.1	850.5	1904.9	1291.1	171.2				
Bathinda	139.2	537.4	1063.0	526.9	72.3				
Rampura Phul	118.8	418.9	943.5	517.3	71.5				
Total	503.2	1806.9	3911.4	2335.4	315.0				

DistrictLevel Taluk-wise Data for Faridkot; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Faridkot	177.1	879.8	1344.4	744.4	95.9				
Jaitu	49.0	325.8	390.8	168.9	22.7				
Total	226.0	1205.6	1735.2	913.3	118.6				

DistrictLevel Taluk-wise Data for Fatehgarh Sahib; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Fatehgarh Sahib	92.3	614.6	716.9	332.2	41.1				
Bassi Pathana	34.3	218.0	261.1	130.6	16.0				
Khamanon	21.9	145.3	150.6	107.6	12.9				
Amloh	24.7	145.9	206.7	65.5	8.4				
Total	173.2	1123.8	1335.3	635.8	78.4				

District	DistrictLevel Taluk-wise Data for Firozpur ; Biomass Class : Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)					
Abohar	234.1	1079.4	1785.6	1182.5	156.9					
Fazilka	182.6	696.5	1366.3	903.3	117.0					
Jalalabad	170.1	701.8	1242.5	613.7	77.7					
Firozpur	134.7	682.9	1026.8	337.0	44.6					
Zira	67.1	307.1	519.5	180.9	23.9					
Total	788.6	3467.7	5940.7	3217.3	420.1					

DistrictLevel Taluk-wise Data for Gurdaspur ; Biomass Class : Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Gurdaspur	217.3	1691.2	1422.6	595.1	74.3				
Batala	113.2	617.4	721.5	337.1	41.6				
Pathankot	74.8	478.6	454.6	216.1	26.7				
Dera Baba Nanak	38.0	187.4	286.6	92.5	11.9				
Dhar Kalan	12.2	216.5	68.3	33.4	4.1				
Total	455.4	3191.0	2953.5	1274.0	158.7				

DistrictLevel Taluk-wise Data for Hoshiarpur; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Mukerian	89.1	578.3	499.9	215.5	26.8				
Hoshiarpur	109.3	467.2	720.9	190.4	24.9				
Dasua	50.5	656.7	279.1	91.7	11.8				
Garhshankar	46.9	472.8	264.0	92.7	11.8				
Total	295.7	2175.0	1763.9	590.4	75.3				

DistrictLevel Taluk-wise Data for Jalandhar ; Biomass Class : Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Phillaur	129.3	751.0	880.4	408.5	50.5				
Nakodar	70.8	488.4	492.9	215.4	26.8				
Jalandhar-I	66.5	465.7	457.8	191.9	24.0				
Shahkot	44.2	372.0	334.3	108.0	13.9				
Jalandhar-Ii	29.9	212.9	207.4	88.8	11.1				
Total	340.6	2290.1	2372.8	1012.7	126.3				

DistrictLevel Taluk-wise Data for Kapurthala ; Biomass Class : Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Kapurthala	104.5	549.9	740.8	342.8	42.4				
Sultanpur Lodhi	57.0	261.3	389.7	209.5	25.6				
Phagwara	47.2	354.3	332.9	145.9	18.1				
Bhulath	23.3	133.7	187.4	56.2	7.3				
Total	232.0	1299.3	1650.9	754.3	93.4				

DistrictLevel Taluk-wise Data for Ludhiana ; Biomass Class : Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Jagraon	128.9	615.4	1011.4	457.4	56.6				
Ludhiana(East)	89.8	398.2	705.3	334.2	41.4				
Samrala	78.4	420.4	616.5	284.0	35.1				
Payal	70.6	690.7	526.9	232.3	29.0				
Ludhiana(West)	62.4	274.2	482.3	225.7	27.9				
Raikot	57.3	273.7	445.4	210.2	25.9				
Khanna	32.0	137.7	240.7	131.4	16.0				
Total	519.4	2810.3	4028.4	1875.3	232.0				

DistrictLevel Taluk-wise Data for Mansa; Biomass Class: Agro									
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Sardulgarh	104.9	344.3	812.6	610.8	81.1				
Mansa	130.8	469.5	1004.5	532.5	71.6				
Budhlada	93.5	353.5	692.2	278.9	37.2				
Total	329.1	1167.4	2509.3	1422.1	189.9				

DistrictLevel Taluk-wise Data for Moga ; Biomass Class : Agro								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Moga	171.8	802.0	1228.1	727.9	89.7			
Nihal Singhwala	95.9	397.5	717.6	350.6	43.8			
Bagha Purana	74.5	358.6	604.4	192.8	25.2			
Total	342.2	1558.1	2550.0	1271.3	158.7			

DistrictLevel Taluk-wise Data for Muktsar; Biomass Class: Agro								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Malout	182.8	695.5	1450.5	868.9	116.7			
Giddarbaha	133.5	715.6	1060.8	562.4	76.6			
Muktsar	87.6	402.7	671.4	386.6	51.6			
Total	403.9	1813.9	3182.7	1817.9	244.9			

DistrictLevel Taluk-wise Data for Nawanshahr; Biomass Class: Agro							
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Nawanshahr	104.9	813.8	696.0	287.4	35.9		
Balachaur	42.0	430.4	296.8	90.8	11.8		
Total	146.9	1244.1	992.8	378.2	47.7		

DistrictLevel Taluk-wise Data for Patiala; Biomass Class: Agro								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Patiala	185.5	796.3	1401.5	655.3	80.9			
Rajpura	155.2	657.9	1157.3	560.0	69.0			
Nabha	73.6	573.3	543.3	250.7	31.1			
Dera Bassi	54.8	254.2	394.7	212.2	26.0			
Samana	60.0	326.5	488.5	173.0	22.0			
Total	529.1	2608.2	3985.4	1851.2	229.0			

DistrictLevel Taluk-wise Data for Rupnagar; Biomass Class: Agro								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Rupnagar	77.3	351.8	476.0	190.2	23.8			
Anandpur Sahib	49.6	377.6	294.3	117.2	14.7			
Kharar	39.7	237.1	239.0	88.7	11.2			
S.A.S.Nagar(Mohali)	17.8	175.2	109.1	33.0	4.3			
Total	184.5	1141.8	1118.5	429.0	54.0			

DistrictLevel Taluk-wise Data for Sangrur ; Biomass Class : Agro								
Taluk	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Barnala	243.3	1245.6	1845.0	877.9	108.9			
Sangrur	147.5	632.5	1148.2	546.9	68.8			
Moonak	122.0	531.5	935.9	457.2	56.4			
Sunam	95.0	387.8	700.0	430.2	53.0			
Malerkotla	98.2	491.2	760.3	360.8	45.0			
Dhuri	87.8	377.7	711.0	319.0	41.0			
Total	793.9	3666.3	6100.5	2992.0	373.2			

Taluk Level Residue Wise

Taluk l	Taluk level Residue-wise Data for Ajnala ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	44.6	134.0	201.0	160.8	19.3				
Wheat	Stalks	59.9	280.3	420.4	84.1	10.9				
Wheat	Pod	59.9	280.3	84.1	42.0	5.9				
Paddy	Husk	44.6	134.0	26.8	21.4	2.4				
Mustard	Stalks	1.5	1.5	2.7	1.3	0.17				
Mustard	Husk	1.5	1.5	1.3	1.3	0.15				
Maize	Stalks	0.97	2.4	4.8	0.97	0.13				
Others	Others	1.9	0.94	2.2	0.46	0.060				
Maize	Cobs	0.97	2.4	1.2	0.36	0.051				
To	tal	108.8	419.2	744.6	312.8	39.0				

Taluk	Taluk level Residue-wise Data for Amritsar-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	30.3	91.0	136.5	109.2	13.1			
Wheat	Stalks	35.1	164.3	246.5	49.3	6.4			
Wheat	Pod	35.1	164.3	49.3	24.7	3.5			
Paddy	Husk	30.3	91.0	18.2	14.6	1.6			

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	2.0	5.2	7.6	6.8	0.96
Cotton	Bollshell	2.0	5.2	5.8	5.2	0.73
Cotton	Husk	2.0	5.2	5.8	5.2	0.73
Others	Others	1.9	1.2	3.3	0.75	0.099
Maize	Stalks	0.55	1.4	2.7	0.54	0.070
T	otal	69.9	263.1	475.6	216.2	27.1

Taluk l	Taluk level Residue-wise Data for Amritsar-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	25.1	75.5	113.2	90.6	10.9			
Wheat	Stalks	42.8	200.2	300.3	60.1	7.8			
Wheat	Pod	42.8	200.2	60.1	30.0	4.2			
Paddy	Husk	25.1	75.5	15.1	12.1	1.3			
Sugarcane	Tops & Leaves	1.7	116.1	5.8	1.5	0.20			
Maize	Stalks	1.2	2.9	5.8	1.2	0.15			
Mustard	Stalks	0.97	1.00	1.8	0.90	0.12			
Mustard	Husk	0.97	1.00	0.90	0.85	0.10			
Maize	Cobs	1.2	2.9	1.4	0.43	0.061			
Others	Others	1.3	0.87	1.9	0.34	0.044			
	Fotal	73.0	396.6	506.3	197.9	24.9			

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	32.7	98.2	147.4	117.9	14.1
Wheat	Stalks	38.3	179.2	268.8	53.8	7.0
Wheat	Pod	38.3	179.2	53.8	26.9	3.8
Paddy	Husk	32.7	98.2	19.6	15.7	1.7
Sugarcane	Tops & Leaves	6.4	436.6	21.8	5.5	0.76
Maize	Stalks	0.96	2.4	4.8	0.96	0.12
Others	Others	5.4	2.5	5.3	0.85	0.11
Maize	Cobs	0.96	2.4	1.2	0.36	0.050
,	Total	83.7	718.9	522.6	221.9	27.7

Taluk	Taluk level Residue-wise Data for Khadur Sahib ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	25.5	76.7	115.0	92.0	11.0			
Wheat	Stalks	7.5	35.1	52.6	10.5	1.4			
Paddy	Husk	25.5	76.7	15.3	12.3	1.3			
Wheat	Pod	7.5	35.1	10.5	5.3	0.74			
Others	Others	0.75	0.90	2.1	0.45	0.059			
T	otal	33.8	112.7	195.6	120.5	14.6			

Talul	Taluk level Residue-wise Data for Patti ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	80.0	240.4	360.6	288.5	34.6				
Wheat	Stalks	88.9	416.3	624.5	124.9	16.2				
Wheat	Pod	88.9	416.3	124.9	62.4	8.7				
Paddy	Husk	80.0	240.4	48.1	38.5	4.2				
Maize	Stalks	1.2	3.0	6.1	1.2	0.16				
Maize	Cobs	1.2	3.0	1.5	0.46	0.064				
Others	Others	3.0	1.4	2.6	0.34	0.044				
T	Total		661.1	1168.2	516.3	64.1				

Talul	Taluk level Residue-wise Data for Tarn-Taran ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	80.7	242.3	363.4	290.7	34.9			
Wheat	Stalks	90.7	424.6	636.9	127.4	16.6			
Wheat	Pod	90.7	424.6	127.4	63.7	8.9			
Paddy	Husk	80.7	242.3	48.5	38.8	4.3			
Sugarcane	Tops & Leaves	2.1	144.8	7.2	1.8	0.25			
Others	Others	1.5	0.93	3.1	1.0	0.14			
Maize	Stalks	0.91	2.3	4.5	0.90	0.12			
,	Total	175.9	814.8	1191.0	524.3	65.1			

Talı	Taluk level Residue-wise Data for Bathinda; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	38.0	108.3	144.4	130.0	18.2				
Cotton	Bollshell	38.0	108.3	119.2	107.2	15.0				
Cotton	Husk	38.0	108.3	119.2	107.2	15.0				
Wheat	Stalks	90.6	353.8	530.8	106.2	13.8				
Wheat	Pod	90.6	353.8	106.2	53.1	7.4				
Paddy	Straw	2.7	10.2	15.4	12.3	1.5				
Mustard	Stalks	3.1	3.7	6.7	3.4	0.44				
Mustard	Husk	3.1	3.7	3.4	3.2	0.38				
Paddy	Husk	2.7	10.2	2.0	1.6	0.18				
Others	Others	1.5	1.1	3.3	0.80	0.10				
Barley	Stalks	2.0	5.6	7.2	0.72	0.094				
Sugarcane	Tops & Leaves	0.82	53.2	2.7	0.66	0.093				
Maize	Stalks	0.46	1.3	2.6	0.52	0.068				
	Γotal	139.2	537.4	1063.0	526.9	72.3				

Taluk level Residue-wise Data for Rampura Phul ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Cotton	Stalks	42.5	121.1	161.5	145.4	20.4			
Cotton	Bollshell	42.5	121.1	133.3	119.9	16.8			
Cotton	Husk	42.5	121.1	133.3	119.9	16.8			
Wheat	Stalks	71.6	279.7	419.6	83.9	10.9			
Wheat	Pod	71.6	279.7	83.9	42.0	5.9			
Mustard	Stalks	2.7	3.3	5.9	3.0	0.38			
Mustard	Husk	2.7	3.3	3.0	2.8	0.34			
Others	Others	2.0	14.8	3.1	0.45	0.060			
To	otal	118.8	418.9	943.5	517.3	71.5			

Taluk le	Taluk level Residue-wise Data for Talwandi Sabo ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	79.8	298.4	447.6	358.1	43.0			
Cotton	Stalks	81.6	232.5	310.0	279.0	39.1			
Cotton	Bollshell	81.6	232.5	255.8	230.2	32.2			
Cotton	Husk	81.6	232.5	255.8	230.2	32.2			
Wheat	Stalks	80.8	315.5	473.3	94.7	12.3			
Wheat	Pod	80.8	315.5	94.7	47.3	6.6			
Paddy	Husk	79.8	298.4	59.7	47.7	5.3			
Mustard	Stalks	1.6	1.9	3.5	1.7	0.22			
Mustard	Husk	1.6	1.9	1.7	1.6	0.20			
Others	Others	1.4	2.2	2.8	0.48	0.063			
To	otal	245.1	850.5	1904.9	1291.1	171.2			

Tal	Taluk level Residue-wise Data for Faridkot; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	65.9	252.1	378.1	302.5	36.3				
Wheat	Stalks	78.7	351.6	527.4	105.5	13.7				
Cotton	Stalks	27.2	72.9	103.2	92.9	13.0				
Cotton	Bollshell	27.2	72.9	80.2	72.2	10.1				
Cotton	Husk	27.2	72.9	80.2	72.2	10.1				
Wheat	Pod	78.7	351.6	105.5	52.7	7.4				
Paddy	Husk	65.9	252.1	50.4	40.3	4.4				
Sugarcane	Tops & Leaves	2.3	198.5	9.9	2.5	0.35				
Mustard	Stalks	0.97	1.5	2.8	1.4	0.18				
Mustard	Husk	0.97	1.5	1.4	1.3	0.16				
Others	Others	2.0	3.1	5.2	0.88	0.12				
	Fotal	177.1	879.8	1344.4	744.4	95.9				

T	Taluk level Residue-wise Data for Jaitu ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	33.3	148.7	223.0	44.6	5.8				
Cotton	Stalks	8.9	24.0	34.0	30.6	4.3				
Cotton	Bollshell	8.9	24.0	26.4	23.8	3.3				
Cotton	Husk	8.9	24.0	26.4	23.8	3.3				
Wheat	Pod	33.3	148.7	44.6	22.3	3.1				
Paddy	Straw	4.1	15.5	23.3	18.6	2.2				
Paddy	Husk	4.1	15.5	3.1	2.5	0.27				
Sugarcane	Tops & Leaves	1.6	136.1	6.8	1.7	0.24				
Others	Others	1.2	1.4	3.1	1.0	0.13				
7	Γotal	49.0	325.8	390.8	168.9	22.7				

Talu	Taluk level Residue-wise Data for Amloh; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	19.9	98.0	147.0	29.4	3.8			
Paddy	Straw	3.8	15.0	22.5	18.0	2.2			
Wheat	Pod	19.9	98.0	29.4	14.7	2.1			
Paddy	Husk	3.8	15.0	3.0	2.4	0.26			
Others	Others	0.59	1.9	3.3	0.55	0.072			
Sugarcane	Tops & Leaves	0.42	31.0	1.6	0.39	0.054			
,	Total		145.9	206.7	65.5	8.4			

Taluk le	Taluk level Residue-wise Data for Bassi Pathana; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	17.5	70.0	105.0	84.0	10.1			
Wheat	Stalks	15.3	75.4	113.1	22.6	2.9			
Wheat	Pod	15.3	75.4	22.6	11.3	1.6			
Paddy	Husk	17.5	70.0	14.0	11.2	1.2			
Sugarcane	Tops & Leaves	0.97	71.2	3.6	0.89	0.12			
Others	Others	0.48	1.4	2.8	0.53	0.071			
,	Γotal	34.3	218.0	261.1	130.6	16.0			

Taluk leve	el Residue-wise	Data fo	or Fatehgarh	Sahib; Bio	mass Clas	s : Agro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	41.0	163.9	245.9	196.7	23.6
Wheat	Stalks	47.7	234.7	352.1	70.4	9.2
Wheat	Pod	47.7	234.7	70.4	35.2	4.9
Paddy	Husk	41.0	163.9	32.8	26.2	2.9
Sugarcane	Tops & Leaves	2.9	213.5	10.7	2.7	0.37
Maize	Stalks	0.48	1.5	3.1	0.62	0.080
Others	Others	0.29	0.95	2.0	0.36	0.049
7	Total		614.6	716.9	332.2	41.1

Taluk l	Taluk level Residue-wise Data for Khamanon; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	18.7	74.9	112.4	89.9	10.8			
Paddy	Husk	18.7	74.9	15.0	12.0	1.3			
Wheat	Stalks	2.1	10.6	15.9	3.2	0.41			
Wheat	Pod	2.1	10.6	3.2	1.6	0.22			
Sugarcane	Tops & Leaves	0.80	59.0	3.0	0.74	0.10			
Others	Others	0.24	0.81	1.2	0.17	0.023			
,	Total		145.3	150.6	107.6	12.9			

Talu	Taluk level Residue-wise Data for Abohar ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	69.2	260.0	390.0	312.0	37.4				
Cotton	Stalks	77.6	206.3	294.8	265.3	37.1				
Cotton	Bollshell	77.6	206.3	227.0	204.3	28.6				
Cotton	Husk	77.6	206.3	227.0	204.3	28.6				
Wheat	Stalks	70.8	307.2	460.8	92.2	12.0				
Wheat	Pod	70.8	307.2	92.2	46.1	6.5				
Paddy	Husk	69.2	260.0	52.0	41.6	4.6				
Mustard	Stalks	5.2	6.7	12.1	6.0	0.79				
Mustard	Husk	5.2	6.7	6.0	5.7	0.69				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	
Sugarcane	Tops & Leaves	5.1	294.0	14.7	3.7	0.51
Others	Others	5.7	3.9	6.5	0.79	0.10
Maize	Stalks	0.45	1.3	2.6	0.51	0.066
Total		234.1	1079.4	1785.6	1182.5	156.9

Ta	Taluk level Residue-wise Data for Fazilka; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	80.5	302.3	453.4	362.7	43.5				
Cotton	Stalks	44.1	117.3	167.5	150.8	21.1				
Cotton	Bollshell	44.1	117.3	129.0	116.1	16.3				
Cotton	Husk	44.1	117.3	129.0	116.1	16.3				
Wheat	Stalks	53.0	229.8	344.6	68.9	9.0				
Paddy	Husk	80.5	302.3	60.5	48.4	5.3				
Wheat	Pod	53.0	229.8	68.9	34.5	4.8				
Mustard	Stalks	2.1	2.8	5.0	2.5	0.32				
Mustard	Husk	2.1	2.8	2.5	2.4	0.28				
Sugarcane	Tops & Leaves	0.72	42.1	2.1	0.53	0.074				
Others	Others	2.2	2.3	3.8	0.46	0.059				
	Fotal	182.6	696.5	1366.3	903.3	117.0				

Tal	Taluk level Residue-wise Data for Firozpur; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	113.2	490.9	736.4	147.3	19.1				
Wheat	Pod	113.2	490.9	147.3	73.6	10.3				
Paddy	Straw	9.6	35.9	53.9	43.1	5.2				
Cotton	Stalks	7.1	18.9	27.0	24.3	3.4				
Cotton	Bollshell	7.1	18.9	20.8	18.7	2.6				
Cotton	Husk	7.1	18.9	20.8	18.7	2.6				
Paddy	Husk	9.6	35.9	7.2	5.8	0.63				
Mustard	Stalks	1.6	2.1	3.7	1.9	0.24				
Sugarcane	Tops & Leaves	2.3	134.2	6.7	1.7	0.23				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	
Mustard	Husk	1.6	2.1	1.9	1.8	0.21
Others	Others	0.84	0.84	1.1	0.11	0.015
,	Total	134.7	682.9	1026.8	337.0	44.6

Talı	ık level Residue	-wise Data	for Jalalaba	d ; Biomass (Class : A	gro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	64.7	242.9	364.3	291.5	35.0
Wheat	Stalks	90.6	393.0	589.5	117.9	15.3
Wheat	Pod	90.6	393.0	117.9	58.9	8.3
Cotton	Stalks	11.6	30.9	44.2	39.8	5.6
Cotton	Bollshell	11.6	30.9	34.0	30.6	4.3
Cotton	Husk	11.6	30.9	34.0	30.6	4.3
Paddy	Husk	64.7	242.9	48.6	38.9	4.3
Mustard	Stalks	2.2	2.9	5.2	2.6	0.34
Mustard	Husk	2.2	2.9	2.6	2.4	0.29
Sugarcane	Tops & Leaves	0.54	31.7	1.6	0.40	0.055
Others	Others	0.36	0.41	0.64	0.064	0.0083
,	Fotal	170.1	701.8	1242.5	613.7	77.7

Т	aluk level Resid	ue-wise Da	ta for Zira ;	Biomass Cla	ss : Agro)
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Wheat	Stalks	55.4	240.2	360.2	72.0	9.4
Wheat	Pod	55.4	240.2	72.0	36.0	5.0
Paddy	Straw	6.4	23.9	35.8	28.6	3.4
Cotton	Stalks	4.5	12.1	17.3	15.6	2.2
Cotton	Bollshell	4.5	12.1	13.3	12.0	1.7
Cotton	Husk	4.5	12.1	13.3	12.0	1.7
Paddy	Husk	6.4	23.9	4.8	3.8	0.42
Others	Others	0.33	0.66	1.2	0.50	0.063
Sugarcane	Tops & Leaves	0.52	30.3	1.5	0.38	0.053
7	Γotal	67.1	307.1	519.5	180.9	23.9

Talu	Taluk level Residue-wise Data for Batala; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	56.8	167.2	250.8	200.7	24.1			
Wheat	Stalks	48.4	225.5	338.2	67.6	8.8			
Wheat	Pod	48.4	225.5	67.6	33.8	4.7			
Paddy	Husk	56.8	167.2	33.4	26.8	2.9			
Sugarcane	Tops & Leaves	3.2	216.5	10.8	2.7	0.38			
Maize	Stalks	3.4	7.0	14.1	2.8	0.37			
Maize	Cobs	3.4	7.0	3.5	1.1	0.15			
Mustard	Stalks	0.84	0.87	1.6	0.79	0.10			
Mustard	Husk	0.84	0.87	0.79	0.75	0.090			
Others	Others	0.54	0.33	0.60	0.079	0.010			
	Fotal	113.2	617.4	721.5	337.1	41.6			

Talul	Taluk level Residue-wise Data for Dera Baba Nanak ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	29.0	135.3	202.9	40.6	5.3				
Paddy	Straw	7.5	22.1	33.1	26.5	3.2				
Wheat	Pod	29.0	135.3	40.6	20.3	2.8				
Paddy	Husk	7.5	22.1	4.4	3.5	0.39				
Others	Others	0.83	28.8	3.1	1.1	0.14				
Maize	Stalks	0.61	1.3	2.5	0.50	0.065				
T	otal	38.0	187.4	286.6	92.5	11.9				

Taluk l	Taluk level Residue-wise Data for Dhar Kalan; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	5.9	17.4	26.1	20.9	2.5			
Wheat	Stalks	3.5	16.2	24.3	4.9	0.63			
Wheat	Pod	3.5	16.2	4.9	2.4	0.34			
Sugarcane	Tops & Leaves	2.7	182.6	9.1	2.3	0.32			
Paddy	Husk	5.9	17.4	3.5	2.8	0.31			
Others	Others	0.11	0.29	0.45	0.13	0.016			
•	Fotal	12.2	216.5	68.3	33.4	4.1			

Talu	k level Residue-	wise Data f	or Gurdaspu	ır ; Biomass	Class: A	gro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	86.9	255.8	383.7	307.0	36.8
Wheat	Stalks	107.6	501.2	751.9	150.4	19.5
Wheat	Pod	107.6	501.2	150.4	75.2	10.5
Paddy	Husk	86.9	255.8	51.2	40.9	4.5
Sugarcane	Tops & Leaves	13.5	918.1	45.9	11.5	1.6
Maize	Stalks	6.7	13.8	27.5	5.5	0.72
Maize	Cobs	6.7	13.8	6.9	2.1	0.29
Mustard	Stalks	1.3	1.3	2.3	1.2	0.15
Mustard	Husk	1.3	1.3	1.2	1.1	0.13
Others	Others	1.4	1.00	1.7	0.30	0.038
r	Fotal	217.3	1691.2	1422.6	595.1	74.3

Taluk level Residue-wise Data for Pathankot; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	37.0	108.8	163.3	130.6	15.7			
Wheat	Stalks	28.7	133.9	200.8	40.2	5.2			
Wheat	Pod	28.7	133.9	40.2	20.1	2.8			
Paddy	Husk	37.0	108.8	21.8	17.4	1.9			
Sugarcane	Tops & Leaves	3.4	228.7	11.4	2.9	0.40			
Maize	Stalks	2.2	4.6	9.2	1.8	0.24			
Mustard	Stalks	1.1	1.1	2.1	1.0	0.13			
Mustard	Husk	1.1	1.1	1.0	0.98	0.12			
Maize	Cobs	2.2	4.6	2.3	0.69	0.097			
Others	Others	2.4	1.4	2.5	0.43	0.056			
,	Total	74.8	478.6	454.6	216.1	26.7			

Talu	Taluk level Residue-wise Data for Dasua ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	32.4	117.1	175.7	35.1	4.6				
Paddy	Straw	8.0	22.7	34.0	27.2	3.3				
Wheat	Pod	32.4	117.1	35.1	17.6	2.5				
Sugarcane	Tops & Leaves	8.4	515.3	25.8	6.4	0.90				
Paddy	Husk	8.0	22.7	4.5	3.6	0.40				
Mustard	Stalks	0.78	0.78	1.4	0.70	0.091				
Mustard	Husk	0.78	0.78	0.70	0.66	0.080				
Others	Others	0.99	0.78	1.8	0.35	0.044				
Total		50.5	656.7	279.1	91.7	11.8				

Taluk le	Taluk level Residue-wise Data for Garhshankar; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	11.0	31.3	46.9	37.5	4.5			
Wheat	Stalks	15.6	56.5	84.8	17.0	2.2			
Maize	Stalks	11.8	34.4	68.8	13.8	1.8			
Wheat	Pod	15.6	56.5	17.0	8.5	1.2			
Maize	Cobs	11.8	34.4	17.2	5.2	0.72			
Sugarcane	Tops & Leaves	5.7	348.0	17.4	4.4	0.61			
Paddy	Husk	11.0	31.3	6.3	5.0	0.55			
Others	Others	1.7	1.7	3.8	1.2	0.15			
Groundnut	Stalks	1.1	0.99	2.0	0.39	0.051			
7	Total		472.8	264.0	92.7	11.8			

Taluk	Taluk level Residue-wise Data for Hoshiarpur ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	53.8	194.6	291.9	58.4	7.6				
Maize	Stalks	44.7	130.2	260.4	52.1	6.8				
Wheat	Pod	53.8	194.6	58.4	29.2	4.1				
Paddy	Straw	7.2	20.5	30.7	24.5	2.9				
Maize	Cobs	44.7	130.2	65.1	19.5	2.7				
Paddy	Husk	7.2	20.5	4.1	3.3	0.36				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Sugarcane	Tops & Leaves	2.0	120.1	6.0	1.5	0.21
Others	Others	0.99	1.3	2.7	0.89	0.12
Mustard	Stalks	0.59	0.59	1.1	0.53	0.069
Mustard	Husk	0.59	0.59	0.53	0.51	0.061
Total		109.3	467.2	720.9	190.4	24.9

Talı	Taluk level Residue-wise Data for Mukerian; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	34.3	97.8	146.7	117.3	14.1				
Wheat	Stalks	38.0	137.5	206.3	41.3	5.4				
Wheat	Pod	38.0	137.5	41.3	20.6	2.9				
Paddy	Husk	34.3	97.8	19.6	15.6	1.7				
Maize	Stalks	8.8	25.7	51.3	10.3	1.3				
Sugarcane	Tops & Leaves	5.1	314.6	15.7	3.9	0.55				
Maize	Cobs	8.8	25.7	12.8	3.8	0.54				
Others	Others	1.8	1.9	3.9	1.0	0.13				
Mustard	Stalks	0.91	0.91	1.6	0.82	0.11				
Mustard	Husk	0.91	0.91	0.82	0.78	0.093				
ř	Fotal	89.1	578.3	499.9	215.5	26.8				

Taluk le	Taluk level Residue-wise Data for Jalandhar-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	24.5	82.4	123.6	98.9	11.9				
Wheat	Stalks	32.0	150.3	225.4	45.1	5.9				
Wheat	Pod	32.0	150.3	45.1	22.5	3.2				
Paddy	Husk	24.5	82.4	16.5	13.2	1.5				
Maize	Stalks	3.9	11.8	23.7	4.7	0.62				
Sugarcane	Tops & Leaves	3.5	218.7	10.9	2.7	0.38				
Maize	Cobs	3.9	11.8	5.9	1.8	0.25				
Mustard	Stalks	0.91	1.3	2.3	1.1	0.15				
Mustard	Husk	0.91	1.3	1.1	1.1	0.13				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Potential
Arhar	Stalks	0.94	0.84	2.1	0.63	0.082
Others	Others	0.82	0.38	1.2	0.12	0.015
Total		66.5	465.7	457.8	191.9	24.0

Taluk le	Taluk level Residue-wise Data for Jalandhar-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	10.9	36.8	55.2	44.2	5.3			
Wheat	Stalks	11.9	55.8	83.7	16.7	2.2			
Wheat	Pod	11.9	55.8	16.7	8.4	1.2			
Maize	Stalks	4.4	13.2	26.4	5.3	0.69			
Paddy	Husk	10.9	36.8	7.4	5.9	0.65			
Maize	Cobs	4.4	13.2	6.6	2.0	0.28			
Cotton	Stalks	0.45	1.3	1.7	1.5	0.22			
Sugarcane	Tops & Leaves	1.7	105.2	5.3	1.3	0.18			
Cotton	Bollshell	0.45	1.3	1.4	1.3	0.18			
Cotton	Husk	0.45	1.3	1.4	1.3	0.18			
Mustard	Stalks	0.38	0.53	0.95	0.47	0.062			
Mustard	Husk	0.38	0.53	0.47	0.45	0.054			
Others	Others	0.20	0.092	0.23	0.024	0.0031			
	Fotal	29.9	212.9	207.4	88.8	11.1			

Taluk	Taluk level Residue-wise Data for Nakodar ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	29.2	98.4	147.6	118.1	14.2				
Wheat	Stalks	34.8	163.8	245.8	49.2	6.4				
Wheat	Pod	34.8	163.8	49.2	24.6	3.4				
Paddy	Husk	29.2	98.4	19.7	15.7	1.7				
Sugarcane	Tops & Leaves	3.5	218.2	10.9	2.7	0.38				
Maize	Stalks	2.3	6.9	13.8	2.8	0.36				
Maize	Cobs	2.3	6.9	3.4	1.0	0.14				
Mustard	Stalks	0.48	0.68	1.2	0.61	0.079				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)		Potential
Mustard	Husk	0.48	0.68	0.61	0.58	0.069
Others	Others	0.48	0.46	0.79	0.19	0.025
Total		70.8	488.4	492.9	215.4	26.8

Taluk	Taluk level Residue-wise Data for Phillaur ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	60.1	202.3	303.5	242.8	29.1			
Wheat	Stalks	57.3	269.3	403.9	80.8	10.5			
Wheat	Pod	57.3	269.3	80.8	40.4	5.7			
Paddy	Husk	60.1	202.3	40.5	32.4	3.6			
Maize	Stalks	3.8	11.6	23.2	4.6	0.60			
Sugarcane	Tops & Leaves	4.2	263.3	13.2	3.3	0.46			
Maize	Cobs	3.8	11.6	5.8	1.7	0.24			
Sunflower	Stalks	2.6	3.6	7.1	1.4	0.19			
Others	Others	0.98	0.60	1.7	0.68	0.086			
Mustard	Stalks	0.32	0.45	0.80	0.40	0.052			
r	Γotal	129.3	751.0	880.4	408.5	50.5			

Tal	uk level Residue	e-wise Data	for Shahkot	; Biomass C	Class : Ag	ro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Wheat	Stalks	31.3	147.3	220.9	44.2	5.7
Paddy	Straw	7.4	24.9	37.4	29.9	3.6
Wheat	Pod	31.3	147.3	44.2	22.1	3.1
Paddy	Husk	7.4	24.9	5.0	4.0	0.44
Sugarcane	Tops & Leaves	3.1	193.2	9.7	2.4	0.34
Maize	Stalks	1.9	5.8	11.5	2.3	0.30
Maize	Cobs	1.9	5.8	2.9	0.87	0.12
Cotton	Stalks	0.24	0.69	0.92	0.83	0.12
Cotton	Bollshell	0.24	0.69	0.76	0.69	0.096
Cotton	Husk	0.24	0.69	0.76	0.69	0.096
Others	Others	0.23	0.16	0.30	0.10	0.013
	Γotal	44.2	372.0	334.3	108.0	13.9

Taluk	Taluk level Residue-wise Data for Bhulath; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	19.7	93.0	139.5	27.9	3.6			
Wheat	Pod	19.7	93.0	27.9	14.0	2.0			
Paddy	Straw	2.8	9.8	14.7	11.7	1.4			
Paddy	Husk	2.8	9.8	2.0	1.6	0.17			
Others	Others	0.33	0.70	1.8	0.69	0.089			
Sugarcane	Tops & Leaves	0.49	30.2	1.5	0.38	0.053			
,	Total	23.3	133.7	187.4	56.2	7.3			

Taluk l	Taluk level Residue-wise Data for Kapurthala; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	48.4	168.1	252.1	201.7	24.2				
Wheat	Stalks	50.6	238.7	358.1	71.6	9.3				
Wheat	Pod	50.6	238.7	71.6	35.8	5.0				
Paddy	Husk	48.4	168.1	33.6	26.9	3.0				
Maize	Stalks	1.6	5.5	10.9	2.2	0.28				
Sugarcane	Tops & Leaves	2.2	135.5	6.8	1.7	0.24				
Others	Others	0.95	0.88	2.5	1.5	0.21				
Maize	Cobs	1.6	5.5	2.7	0.82	0.11				
Sunflower	Stalks	0.83	1.2	2.4	0.49	0.063				
Total		104.5	549.9	740.8	342.8	42.4				

Talu	Taluk level Residue-wise Data for Phagwara ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	19.4	67.2	100.9	80.7	9.7				
Wheat	Stalks	23.5	110.9	166.3	33.3	4.3				
Wheat	Pod	23.5	110.9	33.3	16.6	2.3				
Paddy	Husk	19.4	67.2	13.4	10.8	1.2				
Sugarcane	Tops & Leaves	2.8	171.9	8.6	2.1	0.30				
Maize	Stalks	1.0	3.6	7.2	1.4	0.19				
Maize	Cobs	1.0	3.6	1.8	0.54	0.075				
Others	Others	0.49	0.72	1.5	0.41	0.053				
ŗ	Γotal	47.2	354.3	332.9	145.9	18.1				

Taluk leve	Taluk level Residue-wise Data for Sultanpur Lodhi ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	34.5	119.8	179.7	143.8	17.3			
Wheat	Stalks	20.3	95.7	143.6	28.7	3.7			
Paddy	Husk	34.5	119.8	24.0	19.2	2.1			
Wheat	Pod	20.3	95.7	28.7	14.4	2.0			
Maize	Stalks	1.3	4.3	8.6	1.7	0.22			
Maize	Cobs	1.3	4.3	2.1	0.64	0.090			
Others	Others	0.30	0.39	1.0	0.59	0.074			
Sugarcane	Tops & Leaves	0.66	41.1	2.1	0.51	0.072			
•	Total	57.0	261.3	389.7	209.5	25.6			

Taluk	Taluk level Residue-wise Data for Jagraon; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	56.3	219.4	329.1	263.3	31.6				
Wheat	Stalks	64.6	327.6	491.4	98.3	12.8				
Wheat	Pod	64.6	327.6	98.3	49.1	6.9				
Paddy	Husk	56.3	219.4	43.9	35.1	3.9				
Maize	Stalks	4.8	16.5	32.9	6.6	0.86				
Maize	Cobs	4.8	16.5	8.2	2.5	0.35				
Sugarcane	Tops & Leaves	0.74	49.5	2.5	0.62	0.087				
Others	Others	1.3	1.3	2.2	0.54	0.073				
Mustard	Stalks	0.41	0.56	1.0	0.50	0.065				
Arhar	Stalks	0.74	0.59	1.5	0.44	0.058				
Mustard	Husk	0.41	0.56	0.50	0.48	0.057				
r	Γotal	128.9	615.4	1011.4	457.4	56.6				

Talu	Taluk level Residue-wise Data for Khanna; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	19.5	75.9	113.9	91.1	10.9				
Wheat	Stalks	11.9	60.6	90.8	18.2	2.4				
Paddy	Husk	19.5	75.9	15.2	12.1	1.3				
Wheat	Pod	11.9	60.6	18.2	9.1	1.3				
Others	Others	0.58	1.2	2.6	0.90	0.11				
T	otal	32.0	137.7	240.7	131.4	16.0				

Taluk le	Taluk level Residue-wise Data for Ludhiana(East); Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	41.7	162.6	244.0	195.2	23.4				
Wheat	Stalks	45.5	230.9	346.3	69.3	9.0				
Wheat	Pod	45.5	230.9	69.3	34.6	4.8				
Paddy	Husk	41.7	162.6	32.5	26.0	2.9				
Cotton	Stalks	0.88	2.3	3.3	3.0	0.42				
Cotton	Bollshell	0.88	2.3	2.5	2.3	0.32				
Cotton	Husk	0.88	2.3	2.5	2.3	0.32				
Others	Others	1.3	1.8	3.3	0.59	0.077				
Mustard	Stalks	0.42	0.57	1.0	0.51	0.067				
Mustard	Husk	0.42	0.57	0.51	0.49	0.058				
To	tal	89.8	398.2	705.3	334.2	41.4				

Taluk level Residue-wise Data for Ludhiana(West); Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	28.7	111.9	167.9	134.3	16.1			
Wheat	Stalks	31.2	158.4	237.6	47.5	6.2			
Wheat	Pod	31.2	158.4	47.5	23.8	3.3			
Paddy	Husk	28.7	111.9	22.4	17.9	2.0			
Mustard	Stalks	0.65	0.88	1.6	0.80	0.10			
Mustard	Husk	0.65	0.88	0.80	0.76	0.091			
Others	Others	1.8	2.9	4.4	0.65	0.084			
To	tal	62.4	274.2	482.3	225.7	27.9			

Talu	Taluk level Residue-wise Data for Payal; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	26.2	102.1	153.1	122.5	14.7				
Wheat	Stalks	35.2	178.8	268.2	53.6	7.0				
Wheat	Pod	35.2	178.8	53.6	26.8	3.8				
Paddy	Husk	26.2	102.1	20.4	16.3	1.8				
Sugarcane	Tops & Leaves	6.0	405.6	20.3	5.1	0.71				
Cotton	Stalks	0.82	2.2	3.1	2.8	0.39				
Cotton	Bollshell	0.82	2.2	2.4	2.1	0.30				
Cotton	Husk	0.82	2.2	2.4	2.1	0.30				
Others	Others	2.3	2.1	3.4	0.92	0.12				
,	Total	70.6	690.7	526.9	232.3	29.0				

Taluk	Taluk level Residue-wise Data for Raikot ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	27.1	105.6	158.4	126.7	15.2				
Wheat	Stalks	28.7	145.5	218.2	43.6	5.7				
Wheat	Pod	28.7	145.5	43.6	21.8	3.1				
Paddy	Husk	27.1	105.6	21.1	16.9	1.9				
Others	Others	1.5	22.7	4.0	1.1	0.14				
Total		57.3	273.7	445.4	210.2	25.9				

Taluk	Taluk level Residue-wise Data for Samrala ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	35.6	138.8	208.2	166.6	20.0			
Wheat	Stalks	41.0	208.0	312.0	62.4	8.1			
Wheat	Pod	41.0	208.0	62.4	31.2	4.4			
Paddy	Husk	35.6	138.8	27.8	22.2	2.4			
Sugarcane	Tops & Leaves	1.1	72.1	3.6	0.90	0.13			
Others	Others	0.76	1.5	2.6	0.78	0.099			
Total		78.4	420.4	616.5	284.0	35.1			

Taluk le	Taluk level Residue-wise Data for Budhlada; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	71.1	287.7	431.6	86.3	11.2				
Wheat	Pod	71.1	287.7	86.3	43.2	6.0				
Cotton	Stalks	11.8	32.2	45.0	40.5	5.7				
Paddy	Straw	9.0	31.9	47.9	38.3	4.6				
Cotton	Bollshell	11.8	32.2	35.4	31.9	4.5				
Cotton	Husk	11.8	32.2	35.4	31.9	4.5				
Paddy	Husk	9.0	31.9	6.4	5.1	0.56				
Mustard	Stalks	0.70	0.77	1.4	0.69	0.090				
Mustard	Husk	0.70	0.77	0.69	0.66	0.079				
Others	Others	0.84	0.95	2.2	0.44	0.057				
To	tal	93.5	353.5	692.2	278.9	37.2				

Taluk	Taluk level Residue-wise Data for Mansa; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	33.8	91.9	128.4	115.6	16.2				
Cotton	Bollshell	33.8	91.9	101.1	91.0	12.7				
Cotton	Husk	33.8	91.9	101.1	91.0	12.7				
Wheat	Stalks	75.6	305.8	458.7	91.7	11.9				
Paddy	Straw	19.7	70.0	105.0	84.0	10.1				
Wheat	Pod	75.6	305.8	91.7	45.9	6.4				
Paddy	Husk	19.7	70.0	14.0	11.2	1.2				
Mustard	Stalks	0.97	1.1	1.9	0.95	0.12				
Mustard	Husk	0.97	1.1	0.95	0.90	0.11				
Others	Others	0.76	0.74	1.5	0.22	0.028				
To	tal	130.8	469.5	1004.5	532.5	71.6				

Taluk level Residue-wise Data for Sardulgarh; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	40.7	144.9	217.4	173.9	20.9			
Cotton	Stalks	42.7	116.1	162.2	146.0	20.4			
Cotton	Bollshell	42.7	116.1	127.7	115.0	16.1			

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Husk	42.7	116.1	127.7	115.0	16.1
Wheat	Stalks	19.5	79.0	118.6	23.7	3.1
Paddy	Husk	40.7	144.9	29.0	23.2	2.6
Wheat	Pod	19.5	79.0	23.7	11.9	1.7
Others	Others	1.3	3.5	4.2	0.81	0.11
Mustard	Stalks	0.69	0.76	1.4	0.68	0.089
Mustard	Husk	0.69	0.76	0.68	0.65	0.078
To	otal	104.9	344.3	812.6	610.8	81.1

Taluk l	Taluk level Residue-wise Data for Bagha Purana ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Wheat	Stalks	62.8	293.0	439.4	87.9	11.4				
Wheat	Pod	62.8	293.0	87.9	43.9	6.2				
Paddy	Straw	8.0	30.6	45.9	36.7	4.4				
Cotton	Stalks	2.2	5.5	8.4	7.5	1.1				
Cotton	Bollshell	2.2	5.5	6.0	5.4	0.76				
Cotton	Husk	2.2	5.5	6.0	5.4	0.76				
Paddy	Husk	8.0	30.6	6.1	4.9	0.54				
Others	Others	1.0	28.5	2.4	0.56	0.078				
Maize	Stalks	0.41	1.1	2.2	0.45	0.058				
T	otal	74.5	358.6	604.4	192.8	25.2				

1	Taluk level Residue-wise Data for Moga; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	104.0	396.1	594.2	475.3	57.0				
Wheat	Stalks	55.4	258.6	387.9	77.6	10.1				
Paddy	Husk	104.0	396.1	79.2	63.4	7.0				
Wheat	Pod	55.4	258.6	77.6	38.8	5.4				
Cotton	Stalks	8.4	20.9	32.1	28.9	4.0				
Cotton	Bollshell	8.4	20.9	23.0	20.7	2.9				
Cotton	Husk	8.4	20.9	23.0	20.7	2.9				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Sugarcane	Tops & Leaves	1.7	124.1	6.2	1.6	0.22
Others	Others	1.8	1.2	2.8	0.48	0.064
Maize	Stalks	0.37	1.0	2.0	0.41	0.053
7	Γotal	171.8	802.0	1228.1	727.9	89.7

Taluk	Taluk level Residue-wise Data for Nihal Singhwala ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	41.9	159.5	239.3	191.4	23.0				
Wheat	Stalks	48.7	227.3	341.0	68.2	8.9				
Wheat	Pod	48.7	227.3	68.2	34.1	4.8				
Paddy	Husk	41.9	159.5	31.9	25.5	2.8				
Cotton	Stalks	3.7	9.2	14.0	12.6	1.8				
Cotton	Bollshell	3.7	9.2	10.1	9.1	1.3				
Cotton	Husk	3.7	9.2	10.1	9.1	1.3				
Others	Others	1.6	1.4	2.9	0.52	0.068				
T	otal	95.9	397.5	717.6	350.6	43.8				

Taluk le	evel Residue-wis	se Data	for Giddarl	oaha ; Bioma	ass Class	: Agro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Stalks	41.0	110.3	155.8	140.2	19.6
Cotton	Bollshell	41.0	110.3	121.3	109.2	15.3
Cotton	Husk	41.0	110.3	121.3	109.2	15.3
Wheat	Stalks	74.5	315.9	473.9	94.8	12.3
Wheat	Pod	74.5	315.9	94.8	47.4	6.6
Paddy	Straw	11.1	40.7	61.0	48.8	5.9
Paddy	Husk	11.1	40.7	8.1	6.5	0.72
Sugarcane	Tops & Leaves	3.2	241.1	12.1	3.0	0.42
Mustard	Stalks	0.93	1.3	2.3	1.1	0.15
Mustard	Husk	0.93	1.3	1.1	1.1	0.13
Barley	Stalks	1.8	5.6	7.2	0.72	0.094
Others	Others	1.0	0.75	1.9	0.34	0.044
	Гotal	133.5	715.6	1060.8	562.4	76.6

Ta	Taluk level Residue-wise Data for Malout; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	60.3	162.1	229.0	206.1	28.9				
Cotton	Bollshell	60.3	162.1	178.3	160.5	22.5				
Cotton	Husk	60.3	162.1	178.3	160.5	22.5				
Paddy	Straw	36.2	133.1	199.7	159.8	19.2				
Wheat	Stalks	81.9	346.9	520.3	104.1	13.5				
Wheat	Pod	81.9	346.9	104.1	52.0	7.3				
Paddy	Husk	36.2	133.1	26.6	21.3	2.3				
Mustard	Stalks	1.1	1.6	2.8	1.4	0.18				
Mustard	Husk	1.1	1.6	1.4	1.3	0.16				
Others	Others	2.2	2.7	5.0	0.87	0.11				
Sugarcane	Tops & Leaves	0.63	47.8	2.4	0.60	0.084				
Maize	Stalks	0.45	1.3	2.6	0.51	0.066				
,	Γotal	182.8	695.5	1450.5	868.9	116.7				

Tal	Taluk level Residue-wise Data for Muktsar; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Cotton	Stalks	24.3	65.3	92.3	83.0	11.6				
Paddy	Straw	19.0	69.6	104.4	83.5	10.0				
Cotton	Bollshell	24.3	65.3	71.9	64.7	9.1				
Cotton	Husk	24.3	65.3	71.9	64.7	9.1				
Wheat	Stalks	40.1	169.9	254.9	51.0	6.6				
Wheat	Pod	40.1	169.9	51.0	25.5	3.6				
Paddy	Husk	19.0	69.6	13.9	11.1	1.2				
Sugarcane	Tops & Leaves	1.2	93.8	4.7	1.2	0.16				
Mustard	Stalks	0.54	0.73	1.3	0.66	0.086				
Mustard	Husk	0.54	0.73	0.66	0.63	0.075				
Others	Others	2.5	3.3	4.5	0.58	0.075				
	Fotal	87.6	402.7	671.4	386.6	51.6				

Taluk	Taluk level Residue-wise Data for Balachaur ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	26.0	118.7	178.1	35.6	4.6			
Paddy	Straw	5.9	18.8	28.2	22.6	2.7			
Wheat	Pod	26.0	118.7	35.6	17.8	2.5			
Maize	Stalks	5.2	14.7	29.5	5.9	0.77			
Sugarcane	Tops & Leaves	4.7	277.9	13.9	3.5	0.49			
Paddy	Husk	5.9	18.8	3.8	3.0	0.33			
Maize	Cobs	5.2	14.7	7.4	2.2	0.31			
Others	Others	0.19	0.16	0.39	0.21	0.026			
,	Fotal	42.0	430.4	296.8	90.8	11.8			

Taluk le	Taluk level Residue-wise Data for Nawanshahr; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	39.1	123.9	185.8	148.7	17.8			
Wheat	Stalks	45.1	205.8	308.7	61.7	8.0			
Wheat	Pod	45.1	205.8	61.7	30.9	4.3			
Paddy	Husk	39.1	123.9	24.8	19.8	2.2			
Maize	Stalks	13.0	36.7	73.5	14.7	1.9			
Sugarcane	Tops & Leaves	7.5	447.1	22.4	5.6	0.78			
Maize	Cobs	13.0	36.7	18.4	5.5	0.77			
Others	Others	0.23	0.24	0.74	0.54	0.073			
•	Total		813.8	696.0	287.4	35.9			

Tal	Taluk level Residue-wise Data for Dera Bassi ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	32.8	118.8	178.2	142.5	17.1				
Wheat	Stalks	20.9	103.5	155.2	31.0	4.0				
Wheat	Pod	20.9	103.5	31.0	15.5	2.2				
Paddy	Husk	32.8	118.8	23.8	19.0	2.1				
Cotton	Stalks	0.39	1.0	1.5	1.3	0.19				
Cotton	Bollshell	0.39	1.0	1.1	1.0	0.14				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Cotton	Husk	0.39	1.0	1.1	1.0	0.14
Sugarcane	Tops & Leaves	0.43	30.4	1.5	0.38	0.053
Others	Others	0.22	0.50	1.2	0.27	0.036
7	Total		254.2	394.7	212.2	26.0

Taluk level Residue-wise Data for Nabha ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	33.0	119.5	179.3	143.4	17.2			
Wheat	Stalks	36.1	178.3	267.5	53.5	7.0			
Wheat	Pod	36.1	178.3	53.5	26.7	3.7			
Paddy	Husk	33.0	119.5	23.9	19.1	2.1			
Sugarcane	Tops & Leaves	3.9	273.8	13.7	3.4	0.48			
Cotton	Stalks	0.50	1.3	1.9	1.7	0.24			
Cotton	Bollshell	0.50	1.3	1.5	1.3	0.19			
Cotton	Husk	0.50	1.3	1.5	1.3	0.19			
Others	Others	0.11	0.26	0.62	0.13	0.018			
	Total	73.6	573.3	543.3	250.7	31.1			

Taluk	Taluk level Residue-wise Data for Patiala ; Biomass Class : Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	90.1	326.2	489.3	391.4	47.0				
Wheat	Stalks	94.9	469.1	703.6	140.7	18.3				
Wheat	Pod	94.9	469.1	140.7	70.4	9.9				
Paddy	Husk	90.1	326.2	65.2	52.2	5.7				
Maize	Stalks	0.46	1.1	2.1	0.42	0.055				
Others	Others	0	0	0.53	0.16	0.022				
Total 1		185.5	796.3	1401.5	655.3	80.9				

Talu	Taluk level Residue-wise Data for Rajpura; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	80.0	289.6	434.3	347.5	41.7				
Wheat	Stalks	74.0	365.6	548.4	109.7	14.3				
Wheat	Pod	74.0	365.6	109.7	54.8	7.7				
Paddy	Husk	80.0	289.6	57.9	46.3	5.1				
Maize	Stalks	1.2	2.7	5.4	1.1	0.14				
Maize	Cobs	1.2	2.7	1.3	0.40	0.056				
Others	Others	0.054	0.089	0.28	0.23	0.033				
T	otal	155.2	657.9	1157.3	560.0	69.0				

Tal	Taluk level Residue-wise Data for Samana; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)		Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	44.1	218.2	327.4	65.5	8.5			
Paddy	Straw	15.0	54.4	81.7	65.3	7.8			
Wheat	Pod	44.1	218.2	65.5	32.7	4.6			
Paddy	Husk	15.0	54.4	10.9	8.7	0.96			
Sugarcane	Tops & Leaves	0.76	53.6	2.7	0.67	0.094			
Others	Others	0.082	0.19	0.47	0.10	0.014			
7	Γotal	60.0	326.5	488.5	173.0	22.0			

Taluk leve	Taluk level Residue-wise Data for Anandpur Sahib ; Biomass Class : Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	14.9	47.7	71.5	57.2	6.9			
Wheat	Stalks	21.8	85.8	128.7	25.7	3.3			
Wheat	Pod	21.8	85.8	25.7	12.9	1.8			
Maize	Stalks	8.0	18.2	36.4	7.3	0.95			
Paddy	Husk	14.9	47.7	9.5	7.6	0.84			
Sugarcane	Tops & Leaves	4.1	225.2	11.3	2.8	0.39			
Maize	Cobs	8.0	18.2	9.1	2.7	0.38			
Others	Others	0.77	0.71	2.0	0.90	0.12			
•	Total	49.6	377.6	294.3	117.2	14.7			

Talul	Taluk level Residue-wise Data for Kharar; 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	32.3	48.4	38.7	4.6				
Wheat	Stalks	18.7	73.8	110.7	22.1	2.9				
Wheat	Pod	18.7	73.8	22.1	11.1	1.6				
Maize	Stalks	7.7	17.4	34.8	7.0	0.91				
Paddy	Husk	10.1	32.3	6.5	5.2	0.57				
Maize	Cobs	7.7	17.4	8.7	2.6	0.37				
Sugarcane	Tops & Leaves	2.1	112.8	5.6	1.4	0.20				
Others	Others	1.2	0.82	2.1	0.54	0.068				
	Fotal	39.7	237.1	239.0	88.7	11.2				

Taluk	Taluk level Residue-wise Data for Rupnagar; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Paddy	Straw	24.4	77.9	116.8	93.4	11.2			
Wheat	Stalks	38.0	149.6	224.4	44.9	5.8			
Wheat	Pod	38.0	149.6	44.9	22.4	3.1			
Paddy	Husk	24.4	77.9	15.6	12.5	1.4			
Maize	Stalks	11.3	25.6	51.3	10.3	1.3			
Maize	Cobs	11.3	25.6	12.8	3.8	0.54			
Sugarcane	Tops & Leaves	1.8	95.7	4.8	1.2	0.17			
Others	Others	1.3	2.3	3.8	0.62	0.080			
Mustard	Stalks	0.65	0.58	1.1	0.53	0.068			
Mustard	Husk	0.65	0.58	0.53	0.50	0.060			
•	Fotal	77.3	351.8	476.0	190.2	23.8			

Taluk le	Taluk level Residue-wise Data for S.A.S.Nagar(Mohali); Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)			
Wheat	Stalks	11.2	44.0	66.0	13.2	1.7			
Paddy	Straw	2.0	6.4	9.7	7.7	0.93			
Wheat	Pod	11.2	44.0	13.2	6.6	0.92			
Maize	Stalks	2.2	5.0	10.1	2.0	0.26			

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Sugarcane	Tops & Leaves	2.2	119.5	6.0	1.5	0.21
Paddy	Husk	2.0	6.4	1.3	1.0	0.11
Maize	Cobs	2.2	5.0	2.5	0.76	0.11
Others	Others	0.21	0.14	0.32	0.14	0.017
	Total		175.2	109.1	33.0	4.3

Tal	uk level Residue	e-wise Data	for Barnala	; Biomass C	class : Ag	ro
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)
Paddy	Straw	109.0	425.2	637.8	510.2	61.2
Wheat	Stalks	122.6	591.4	887.0	177.4	23.1
Wheat	Pod	122.6	591.4	177.4	88.7	12.4
Paddy	Husk	109.0	425.2	85.0	68.0	7.5
Cotton	Stalks	3.3	8.8	12.7	11.4	1.6
Cotton	Bollshell	3.3	8.8	9.7	8.8	1.2
Cotton	Husk	3.3	8.8	9.7	8.8	1.2
Sugarcane	Tops & Leaves	3.0	210.7	10.5	2.6	0.37
Others	Others	3.8	3.2	6.9	1.1	0.14
Barley	Stalks	1.5	6.3	8.2	0.82	0.11
r	Γotal	243.3	1245.6	1845.0	877.9	108.9

Tal	Taluk level Residue-wise Data for Dhuri; Biomass Class: Agro									
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)				
Paddy	Straw	25.3	98.8	148.1	118.5	14.2				
Wheat	Stalks	51.7	249.1	373.6	74.7	9.7				
Wheat	Pod	51.7	249.1	74.7	37.4	5.2				
Cotton	Stalks	8.0	21.1	30.4	27.3	3.8				
Cotton	Bollshell	8.0	21.1	23.2	20.9	2.9				
Cotton	Husk	8.0	21.1	23.2	20.9	2.9				
Paddy	Husk	25.3	98.8	19.8	15.8	1.7				
Maize	Stalks	2.0	5.4	10.8	2.2	0.28				
Maize	Cobs	2.0	5.4	2.7	0.81	0.11				

Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Generation	Biomass Surplus (kT/Yr)	
Barley	Stalks	0.81	3.4	4.4	0.44	0.057
Others	Others	0.012	0.012	0.031	0.016	0.0021
Total		87.8	377.7	711.0	319.0	41.0

Taluk level Residue-wise Data for Malerkotla; Biomass Class: Agro								
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)		
Paddy	Straw	42.1	164.4	246.6	197.3	23.7		
Wheat	Stalks	51.4	247.9	371.8	74.4	9.7		
Wheat	Pod	51.4	247.9	74.4	37.2	5.2		
Paddy	Husk	42.1	164.4	32.9	26.3	2.9		
Cotton	Stalks	2.8	7.4	10.7	9.6	1.3		
Cotton	Bollshell	2.8	7.4	8.2	7.4	1.0		
Cotton	Husk	2.8	7.4	8.2	7.4	1.0		
Sugarcane	Tops & Leaves	0.99	68.4	3.4	0.86	0.12		
Others	Others	0.84	3.0	4.1	0.44	0.057		
Total		98.2	491.2	760.3	360.8	45.0		

Taluk level Residue-wise Data for Moonak; Biomass Class: Agro							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Paddy	Straw	60.1	234.6	351.8	281.5	33.8	
Wheat	Stalks	61.0	294.3	441.5	88.3	11.5	
Wheat	Pod	61.0	294.3	88.3	44.2	6.2	
Paddy	Husk	60.1	234.6	46.9	37.5	4.1	
Cotton	Stalks	0.65	1.7	2.5	2.2	0.31	
Cotton	Bollshell	0.65	1.7	1.9	1.7	0.24	
Cotton	Husk	0.65	1.7	1.9	1.7	0.24	
Others	Others	0.20	0.83	1.1	0.11	0.014	
Total		122.0	531.5	935.9	457.2	56.4	

Taluk level Residue-wise Data for Sangrur; Biomass Class: Agro							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Paddy	Straw	58.7	228.9	343.3	274.7	33.0	
Wheat	Stalks	77.8	375.0	562.6	112.5	14.6	
Wheat	Pod	77.8	375.0	112.5	56.3	7.9	
Paddy	Husk	58.7	228.9	45.8	36.6	4.0	
Cotton	Stalks	7.6	20.1	28.9	26.0	3.6	
Cotton	Bollshell	7.6	20.1	22.1	19.9	2.8	
Cotton	Husk	7.6	20.1	22.1	19.9	2.8	
Barley	Stalks	1.7	7.2	9.3	0.93	0.12	
Others	Others	1.8	1.3	1.7	0.22	0.028	
Total		147.5	632.5	1148.2	546.9	68.8	

Taluk level Residue-wise Data for Sunam; Biomass Class: Agro							
Crop	Residue	Area (kHa)	Crop Production (kT/Yr)	Biomass Generation (kT/Yr)	Biomass Surplus (kT/Yr)	Power Potential (MWe)	
Paddy	Straw	60.5	236.2	354.3	283.4	34.0	
Wheat	Stalks	27.6	133.0	199.5	39.9	5.2	
Paddy	Husk	60.5	236.2	47.2	37.8	4.2	
Wheat	Pod	27.6	133.0	39.9	20.0	2.8	
Cotton	Stalks	5.6	14.8	21.3	19.2	2.7	
Cotton	Bollshell	5.6	14.8	16.3	14.7	2.1	
Cotton	Husk	5.6	14.8	16.3	14.7	2.1	
Barley	Stalks	0.81	3.4	4.4	0.44	0.057	
Others	Others	0.50	0.46	0.78	0.12	0.016	
Total		95.0	387.8	700.0	430.2	53.0	

Note:

'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 reside-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.