

5 % of the terminals are identified as feed in terminals (Figure 3). These terminals are relatively large (7 ha in average) and located close to heating plants, sawmills and pulp mills. These terminals are used as buffer storages to balance unbalances between supply and demand (Table 1).



Figure 3. A typical feed in terminal.

15 % of the terminals were identified as transhipment terminals (Figure 4). The average area of these terminals is 7.8 ha and the majority of them are roundwood terminals with a truck to rail transhipment. These terminals store very low quantities of biomass for energy.



Figure 4. Transhipment terminal.

23% of the terminals were identified as forest fuel upgrading terminals. In these terminals natural drying of forest biomass during storage is utilised in order to increase the net calorific value of the biomass and thus upgrade the value of the biomass. The average area of these kinds of terminals was much lower than the industry, the transhipment and the satellite terminals.

Table 1. Terminal characteristics in the Swedish part of the Botnia Atlantica region.

	Distance to (km)						Area (ha)
	Railway	Main road	Saw-mill	Pulp mill	Heating plant		
Industry terminals	Average	8,40	0,36	11,92	80,15	12,54	6,58
	Median	2,15	0,32	1,98	74,55	5,23	4,50
	Standard deviation	13,53	0,30	18,83	66,29	16,08	5,94
	Max	60,82	1,20	62,23	217,25	76,97	30,00
Transhipment terminals	Average	2,84	0,43	23,33	102,57	12,70	7,80
	Median	1,26	0,26	19,21	102,39	8,67	7,74
	Standard deviation	2,86	0,40	21,25	80,26	11,26	5,83
	Max	8,91	1,45	80,23	249,56	37,21	21,86
Feed in terminal	Average	3,21	0,65	26,32	134,12	7,53	7,04
	Median	2,52	0,76	19,90	167,86	6,10	7,00
	Standard deviation	3,31	0,31	17,21	72,74	6,26	4,56
	Max	8,94	0,98	56,85	180,71	15,85	11,50
Forest fuel upgrading terminals	Average	14,92	0,39	39,63	89,73	17,56	3,27
	Median	5,04	0,21	33,86	75,31	10,19	2,19
	Standard deviation	16,97	0,55	27,31	66,84	17,51	3,01
	Max	58,98	2,58	115,27	212,85	58,99	14,00

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