

socio-economic development. But electricity is the main problem to exploit these resources because no electricity exists in this isolated island. By the grace of nature of nature, there prevails strong trade wind in the island that can generate electricity through wind turbine and supply them.

A comprehensive feasibility study programme has been started by Bangladesh Council of Scientific & Industrial

measure the actual wind velocity and its variation. The wind velocity data from April,1998 to March1999, was collected through installed data logger at 25m height in the Island and analysed in the Renewable Energy Technology Laboratory, IFRD, BCSIR. Table-1 shows the month wise hourly average wind speed data and Table -2 shows the wind data analysis at St. Martin's Island from April,98 to March,99.

**Table-1: Month wise, hourly average wind speed (m/s) at St. Martin's Island**

Month /Hr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Apr.98	4	4	4	4	4	4	3	3	3	3	3	4	4	5	5	5	5	5	4	4	4	3	3	3
May98	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	5	5	5	5	5
June98	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6
July98	6	6	6	6	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6
Aug98	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	5	5	5	5	5	5	6
Sept98	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	3	3	3	3	3	3
Oct98	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	3	3	4	4	4	4
Nov98	4	4	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Dec98	5	5	5	6	5	5	5	4	4	4	3	3	2	2	3	3	3	3	4	4	5	5	5	5
Jan99	6	6	6	6	6	6	6	5	5	5	4	4	3	3	4	4	4	4	5	6	6	6	6	6
Feb99	6	6	6	6	5	5	4	4	4	3	3	3	3	4	5	5	5	5	5	5	6	5	5	5
Mar99	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	4	4	4	4	4

**Table-2: Wind Data Analysis at St. Martin's Island (April '98- March'99).**

Vel. Class	Ave.Vel	Freq.	Cumul.	Rel. Freq	Rel. Cumul.	Vel.	Rel. Vel.	Energy (Wh/m <sup>2</sup> )
v(m/s)	v (m/s)	h(hrs)	Freq.	f(v)	F(v)	Duration	Duration	0.1*v <sup>3</sup> *h
0-1	0.5	218	218	0.0249	0.0249	8542	0.9751	2.173
1-2	1.5	796	1014	0.0909	0.1158	7746	0.8843	268.65
2-3	2.5	1390	2404	0.1587	0.2744	6356	0.7256	2171.86
3-4	3.5	1474	3878	0.1683	0.4427	4882	0.5573	6319.76
4-5	4.5	1437	5315	0.1640	0.6067	3445	0.3933	13094.66
5-6	5.5	1220	6535	0.1393	0.7460	2225	0.25402	20297.75
6-7	6.5	864	7399	0.0986	0.8486	1361	0.1554	23727.6
7-8	7.5	581	7980	0.0663	0.9110	780	0.0890	24510.94
8-9	8.5	358	8338	0.0409	0.9518	422	0.0482	21985.68
9-10	9.5	204	8542	0.0233	0.9751	218	0.0249	17490.45
10-11	10.5	98	8640	0.0112	0.9863	120	0.0137	11344.73
11-12	11.5	48	8688	0.0055	0.9918	72	0.0082	7300.40
12-13	12.5	26	8714	0.0030	0.9947	46	0.0053	5078.13
13-14	13.5	17	8731	0.0019	0.9967	29	0.0033	4182.64
14-15	14.5	10	8741	0.0011	0.9978	19	0.0022	3048.63
15-16	15.5	7	8748	0.0008	0.9986	12	0.0014	2606.71
16-17	16.5	5	8753	0.0006	0.9992	7	0.0008	2246.06
17-18	17.5	4	8757	0.0005	0.9997	3	0.0003	2143.75
18-19	18.5	2	8759	0.0002	0.9999	1	0.0001	1266.33
19-20	19.5	1	8760	0.0001	1.0000	0	0	741.49
		8760						169828.75