## **APPENDICES**

Appendix 1: SWC determination of the soil samples.



(b) Soil sample was taken out from the plastic cylinder



(a) Soil sample were cut into three partition after being measured specifically according to the depth of the soil



(c) Each of soil sample was pack in an alumunium foil in triplicate and weight were measured.



(d) Samples were oven dried until a consistant weight obtained.

			SWC (g)					FC (g)				
	Soil depth	Replicate	FW		DW		Percentage	SW		DW		Percentage
	(cm)			1	2	Final	(%)		1	2	Final	(%)
		1	58.23	45.08	45.06	45.06	22.62	99.89	60.73	60.70	60.70	39.23
<b>x</b> )	0 to 10	2	69.50	53.58	53.56	53.56	22.94	78.61	47.35	47.32	47.32	39.80
SLOPE A (High Stability) 136.67 kPa		3	47.46	36.31	36.29	36.29	23.54	97.19	58.46	58.43	58.43	39.88
SLOPE A igh Stabili 136.67 kPa						Average	23.03				Average	39.64
SL ligh 136		1	58.93	46.24	46.22	46.22	21.57	80.88	49.82	49.79	49.79	38.44
<b>H</b>	11 to 20	2	66.65	52.41	52.40	52.40	21.38	77.82	46.51	46.48	46.48	40.27
		3	60.42	46.82	46.79	46.79	22.56	82.67	49.94	49.94	49.94	39.59
						Average	21.84				Average	39.43
	21 to 30	1	69.05	52.60	52.57	52.57	23.87	60.87	37.90	37.88	37.88	37.77
		2	64.33	49.44	49.41	49.41	23.19	77.39	47.13	47.12	47.12	39.11
		3	68.45	51.59	51.56	51.56	24.68	82.23	49.21	49.20	49.20	40.17
						Average	23.91				Average	39.02

## Appendix 2(a) : Soil profile of slope type A

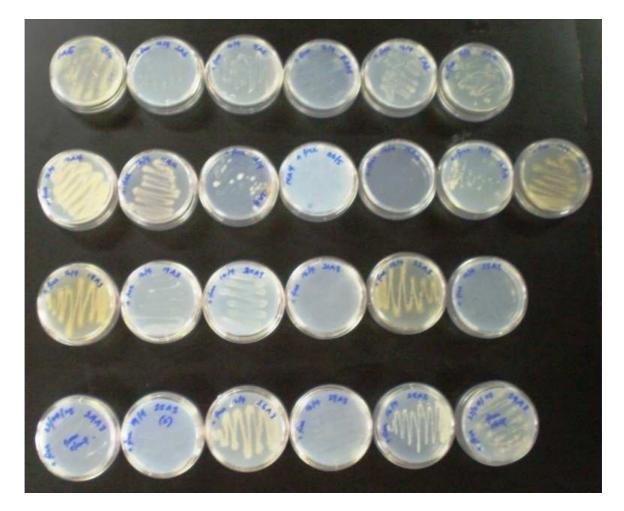
## Appendix 2(b) : Soil profile of slope type B

			SWC (g)					FC (g)				
	Soil depth	Replicate	FW	DW			Percentage	SW	DW			Percentage
	(cm)			1	2	Final	(%)		1	2	Final	
	0 to 10	1	64.32	50.31	50.30	50.30	21.80	75.40	46.94	46.91	46.91	37.78
SLOPE B (Moderate Stability) 91.33 kPa		2	61.10	48.21	48.20	48.20	21.11	120.36	76.62	76.62	76.62	36.34
		3	67.53	52.59	52.56	52.56	22.17	75.39	47.30	47.31	47.31	37.25
SLOPE B lerate Stal 91.33 kPa				·		Average	21.69				Average	37.06
SL dera	11 to 20	1	64.29	48.68	48.67	48.67	24.30	81.56	54.08	54.06	54.06	33.72
Mo		2	79.21	60.34	60.33	60.33	23.84	69.95	44.17	44.16	44.16	36.87
		3	64.42	49.22	49.21	49.21	23.61	88.75	54.38	54.35	54.35	38.76
						Average	23.92				Average	36.45
		1	60.70	47.94	47.92	47.92	21.05	78.38	51.38	51.38	51.38	34.45
	21 to 30	2	57.44	44.92	44.89	44.89	21.85	90.38	58.87	58.84	58.84	34.90
		3	54.61	42.02	42.00	42.00	23.09	68.54	45.61	45.58	45.58	33.50
						Average	22.00				Average	34.28

Appendix 2(c)	: Soil	profile of	slope t	type C

Appendix 2(c) : Son prome of slope type C													
		Replicate	SWC (g)					FC (g)					
	Soil depth		FW	/ DW			Percentage	SW	DW			Percentage	
	(cm)			1	2	Final	(%)			1	2	Final	
SLOPE C (Low Stability) 62.67 kPa	0 to 10	1	50.49	39.11	39.11	39.11	22.54	83.26	56.93	56.91	56.91	31.65	
		2	69.31	52.70	52.69	52.69	23.97	95.77	64.51	64.50	64.50	32.65	
		3	73.11	54.61	54.58	54.58	25.34	97.73	64.46	64.43	64.43	34.07	
SLOPE C ow Stabili 62.67 kPa							23.95					32.79	
SLO OW 62.	11 to 20	1	50.48	38.21	38.21	38.21	24.31	71.28	45.59	45.56	45.56	36.08	
(T		2	40.43	31.33	31.33	31.33	22.51	73.66	46.07	46.04	46.04	37.50	
		3	70.75	54.16	54.16	54.16	23.45	76.78	48.73	48.71	48.71	36.56	
							23.42					36.71	
	21 to 30	1	52.03	39.56	39.56	39.56	23.97	95.46	61.07	61.07	61.07	36.02	
		2	58.13	43.91	43.91	43.91	24.46	74.60	46.87	46.84	46.84	37.21	
		3	61.29	46.33	46.31	46.31	24.44	76.25	48.42	48.39	48.39	36.54	
						Average	24.29				Average	36.59	

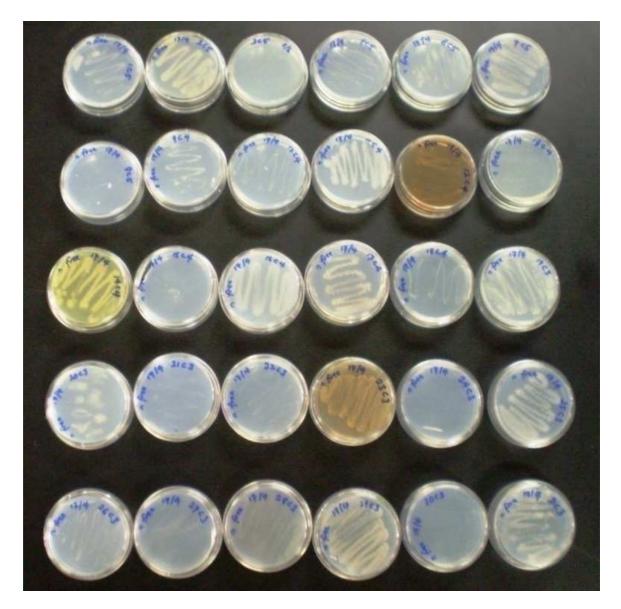
**Appendix 3:** A total of 77 plates are shown in figure (a), (b) and (c). However, the number of plates is not parallel with the number of bacterial strain as most of the bacteria in the plates could be originated from the same strain of bacterial species. Some of the strain used in the studied is not illustrated here because the strain were able to be recovered later used for futher investigation



(a) Strain isolated from grass root in slope type A. Only 25 out 29 strains were successfully recovered.



(b) Strain isolated from grass root in slope type B. A total of 22 out of 30 strains were successfully recovered.



(c) Strain isolated from grass root in slope type C. A total of 30 out of 31 strains were successfully recovered. Some of the strain produced yellow and brown pigment.

Slop	e A	Slop	e B	Slop	e C
1A6		1B6		1C5	
2A6	$\checkmark$	2B5		2C5	$\checkmark$
3A5	$\checkmark$	3B5	$\checkmark$	3C5	
4A5	$\checkmark$	4B5	$\checkmark$	4C5	$\checkmark$
5A5	$\checkmark$	5B5		5C5	
6A5		6B4	$\checkmark$	6C5	$\checkmark$
7A4	$\checkmark$	7B4	$\checkmark$	7C5	$\checkmark$
8A4	$\checkmark$	8B4	$\checkmark$	8C5	
9A4	$\checkmark$	9B4		9C4	$\checkmark$
10A4	$\checkmark$	10B4		10C4	$\checkmark$
11A4		11B4		11C4	$\checkmark$
12A4	$\checkmark$	12B4	$\checkmark$	12C4	$\checkmark$
13A4	$\checkmark$	13B4	$\checkmark$	13C4	$\checkmark$
14A4		14B4	$\checkmark$	14C4	
15A4		15B4	$\checkmark$	15C4	$\checkmark$
16A4	$\checkmark$	16B3	$\checkmark$	16C4	
17A3	$\checkmark$	17B3		17C4	
18A3	$\checkmark$	18B3	$\checkmark$	18C4	$\checkmark$
19A3	$\checkmark$	19B3		19C3	
20A3	$\checkmark$	20B3	$\checkmark$	20C3	$\checkmark$
21A3	$\checkmark$	21B3	$\checkmark$	21C3	
22A3	$\checkmark$	22B3	$\checkmark$	22C3	
23A3	$\checkmark$	23B3	$\checkmark$	23C3	$\checkmark$
24A3	$\checkmark$	24B3	$\checkmark$	24C3	$\checkmark$
25A3	$\checkmark$	25B3		25C3	
26A3		26B3		26C3	$\checkmark$
27A3	$\checkmark$	27B3	$\checkmark$	27C3	$\checkmark$
28A3	$\checkmark$	28B3		28C3	$\checkmark$
29A3		29B3		29C3	
		30B3	$\checkmark$	30C3	$\checkmark$
				31C3	
Total	23		19		19

**Appendix 4:** Bacterial strains in which genomic DNA were successfully extracted was labeled as  $\sqrt{.}$