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## APPENDIX A : QUESTIONNAIRE

Dear Sir / Madam,

I am a post graduate candidate of Department of Building Economics, University of Moratuwa, conducting a research under the supervision of Mr. Ravihansa Chandrathilaka, University of Moratuwa as a partial fulfillment of the requirement for the Degree of Master of Science in Project Management.

The research title:

Assessing Cement Blocks in the Context of Sustainable Construction.

#### Aim of the research:

To investigate requirement of building stake holders on cement blocks selection as a sustainable building material and to develop a model for sustainable cement blocks selection.

I here by gurantee the responses of the questionnaires will be used only for the aforementioned purpose and will not be exposed to any third party. The research publication will not contain any personal details of the respondents. You are requested to sincerely respond to all the questions in the questionnaire.

Thank you

Yours trut

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D. Suraji Weerasekera

### Instructions

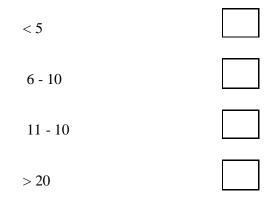
1.	Purpose of this survey is to collect information on the selection at cement blocks for sustainable developments as a sustainable building material to identification of assessment criteria based on the concepts and principles of sustainability, and the process of prioritizing and aggregating relevant criteria into an assessment framework.
2.	This questionnaire should be filled with persons from the staff related to the field of construction in the organization[Building Designers (Engineers & Architects)].
3.	This questionnaire survey consists of Part A, Part B and Part C and you are requested to fill all three parts.
4.	The collected information will remain confidential.

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Company background information lk

Name of the organization:

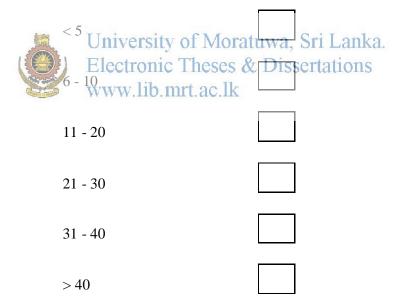
Work experience (years):



Size of the organization (by staff):

< 10	
11- 50	
51 - 249	
250 - 500	
> 500	

Age of organization (years):



Type of organization :

Architecture/o	design		
Education			
Government a	agency		
Area of build	ing project specialism:		
Commercial			
Residential			
Institutional Industrial	University of Morat Electronic Theses & www.lib.mrt.ac.lk		
Organizational annual turn over:			

> 5m 6 - 25m 26 - 100m > 100m

# Part B : Information about respondent

Name of the respondent (op	tional):	
Designation/Title:		]
Years in the field of constru	ction	
Years in the company		
Sex	Male	
	Female	



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### Part C :- Questionnaire Survey

This Sustainable Criteria for cement blocks selection is developed specifically for sustainable cement blocks selection in building projects.Combined with sustainable concerns and requirements of building stakeholders, a list of criteria was developed. Please rate the level of importance of the derived criteria based on a scale of 1 - 5, where 1 is "least important", 2 "fairly important", 3 "important ", 4 "very important" and 5 "extreamly important & add new criteria if necessary.

1.0 Environmental criteria

2.

3.

- 1. **Potential for recycling and reuse of cement blocks** [Cement blocks capacity as a resource in the creation of new product.]
  - 1. least important fairly important 2. 3. important very important 4. 5. extremely important Availability of environmentally sound disposal options of cement blocks [There is no insufficient space for its disposal in cities. The land filling is critical with local arthorities] University of Moratuwa, Sri Lanka.  $^{1}E$ least important lectronic Theses & Dissertations fairly important ac.1k  $2_{W}$ 3. important 4. very important 5. extremely important Impact of cement blocks on air quality [Cement blocks can remove odors and chemicals when natural or artificial ventilaton is inadequate.] 1. least important 2. fairly important important 3.

4. very important

5. extremely important

4. **Ozone depletion potential of cement blocks** [Green House Gas (GHG) emissions originate from each stage of material's life cycle.]

emiss	ions originate nom each stage of	material's me cycle.j
1.	least important	
2.	fairly important	
3.	important	
4.	very important	
impro	conmental impact during cem	ent blocks harvest [Productivity impacts on the environment to
1.	least important	
2.	fairly important	
3.	important	
4.	very important	
5.	<b>J</b> 1	
	or low toxicity of cement block	s [Cement blocks emit fumes for
	Flectronic Theses & Di	_
2.	www.lib.mrt.ac.lk	
3.	important	
4.	very important	
Envi	extremely important ironmental statutory complian ment regulations about the tion.]	
1.	least important	
2.	fairly important	
3.	important	
4.	very important	

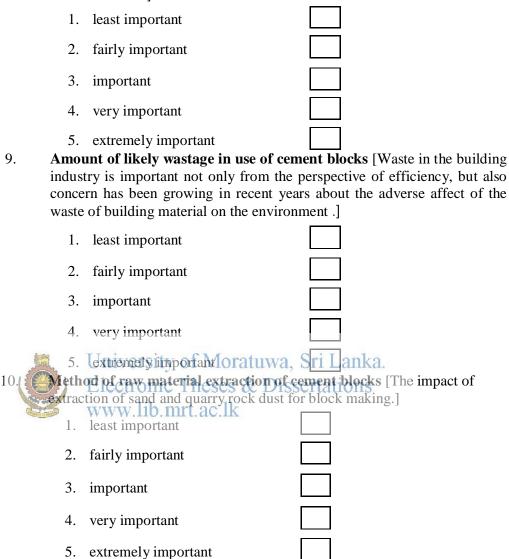
5. extremely important

5.

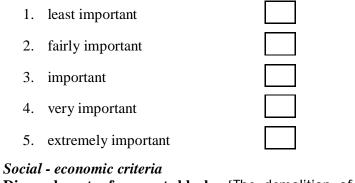
6.

7.

8. **Minimise Pollution of cement blocks** – **e.g. air, land** [Pollution, caused by the process taking place during the production of cement blocks material.]



11. **Embodied energy within cement blocks** [The amount of energy required to produce a material and supply to the point of use.]



12. **Disposal cost of cement blocks** [The demolition of buildings and disposal of the resulting waste has a high environmental cost.]

1.	least important
2.	fairly important
3.	important
4.	very important
13. Offeal	extremely important University of Moratuwa, Sri Lanka. That safety factors of cement blocks about a products contain owneds, which adversly affect the health and safety of occupants of a ing.] least important
2.	fairly important

3. important

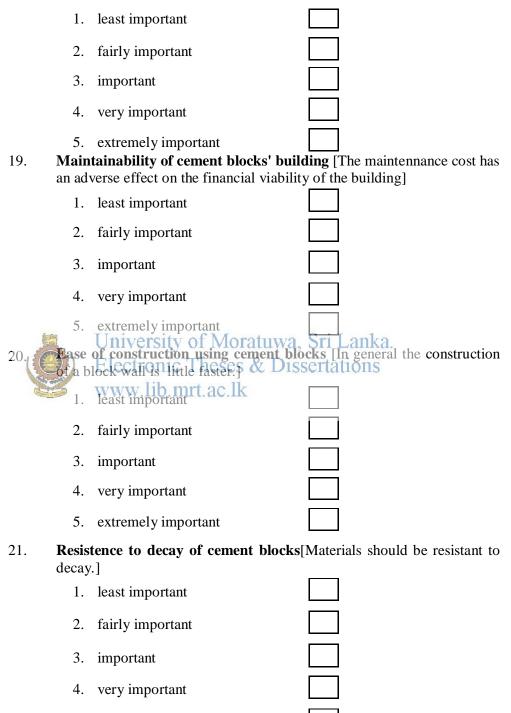
2.0

- 4. very important
- 5. extremely important

14. **Maintenance cost of cement blocks' buildings** [Maintenance consumes a significant portion of a building's life time and maintenance can easily exceed the original construction cost of the building.]

	1.	least important	
	2.	fairly important	
	3.	important	
	4.	very important	
	5.	extremely important	
15.	Aestł	netics in cement blocks' building	[Aesthetic quality of a building]
	1.	least important	
	2.	fairly important	
	3.	important	
	4.	very important	
16.	source consid	extremely important <b>I local material for coment by oc</b> ed locally can help lessen the envi lerably cut transportation cost an mice y. 110. mrt. ac. 1k	ironmental burdens. This would
	1.	least important	
	2.	fairly important	
	3.	important	
	4.	very important	
17.		extremely important <b>l acquisition cost of cement block</b> ffectiveness of building materials.]	
	1.	least important	
	2.	fairly important	
	3.	important	
	4.	very important	
	5.	extremely important	

18. **Labour availability for cement block production** [Less labour involving is caused to reducing costs, increasing productivity and allowing to build faster. Day labours with a low level of education results in clear priority on quantify and not on quality]



5. extremely important

22. Fire resistence of cement blocks[The type of course aggregate used in block making plays an important role in evaluating the fire resistence rating of the wall.]

1.	least important	
2.	fairly important	
3.	important	
4.	very important	
5.	extremely important	

24

- 23. Life expectancy of cement blocks [Service life of the building is increased it's life-cycle cost.]
  - 1. least important 2. fairly important 3. important 4. very important University of Moratuwa, Sri Lanka. extremely important Electronic Theses & Dissertations

Energy saving and thermal insulation of cement blocks [Buildings should be suitable for the functions and activities of their occupants.Buildings should be provide thermally, acoustically and visually comfortable and healthy internal conditions while conserving energy and the environment.]

0	-	
1.	least important	
2.	fairly important	
3.	important	
4.	very important	
5.	extremely important	

I would like to thank you for the information given and time you have dedicated to this reserch. If you are intrested to know the outcome of this research, it would be my pleasure to share it with you.