



INTERNATIONAL CONFERENCE ON REAL ESTATE MANAGEMENT AND VALUATION (ICREMV) 2017

SMART REAL ESTATE TOWARDS UNMET SOCIO-ECONOMIC NEEDS

31st October 2017 | Hilton Colombo Residences, Colombo, Sri Lanka

PROCEEDINGS

Research and Professional Development Centre (EMV-RPDC)
Department of Estate Management and Valuation
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura
Sri Lanka

B.Sc. (Special) Estate Management and Valuation Degree Programme



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SMART Real Estate: Towards Unmet Socio-Economic Needs

Proceedings

**International Conference on Real Estate Management and Valuation
(ICREMV- 2017)**

31st October 2017

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(ICREMV 2017)

EMV-Research and Professional Development Center (EMV- RPDC)
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Introductory Remarks and Acknowledgements

The Department of Estate Management and Valuation, Faculty of Management Studies and Commerce (FMSC) of the University of Sri Jayewardenepura, is proud to present the International Conference on Real Estate Management and Valuation – ICREMV 2017. The event is a landmark event of the department, which exemplifies the stature it gives for research in the real estate sector. This conference is succeeded by two successful national symposiums held in the past two years. In this year, it has stepped into an international level, in collaboration with the Government Valuation Department, Institute of Valuers' Sri Lanka, RICS Sri Lanka Members Association, Urban Development Authority and Colombo Municipal Council.

The theme of this conference is “SMART Real Estate; Towards Unmet Socio-Economic Needs”. SMART is defined as, **S**ustainable and **M**arketable real estate; **A**spirations of society, **R**einforce wealth and **T**ransform the economy.

Going in line with the theme, ICREMV 2017 aims at promoting and publishing current and relevant ideas on SMART Real Estate that are vital, especially for the corporate and public sector organizations. It plays an important role in achieving unmet socio-economic needs of society. This conference will undoubtedly serve as a platform where scholars, professionals, and practitioners would share their research findings, experiences and ideas, which in turn will be a stimulating experience for all.

ICREMV 2017 has received high quality, empirical, methodological and conceptual papers from academics, practitioners and policy makers, which are organized under 6 tracks. A transparent reviewing process was conducted, where the papers underwent a double-blinded review procedure conducted by an equally eminent panel of reviewers. It should be noted that neither the ICREMV 2017 committee nor the Department of Estate Management and Valuation of the University of Sri Jayewardenepura will assume responsibility for any errors or omissions in the research papers, which rest solely with the authors.

This conference would not have been possible if not for the invaluable contribution made by various persons and organizations and we express our heartfelt thanks to them all. We would like to extend our sincere gratitude to the Chief Guest of ICREMV 2017 Dr. I. H. K. Mahanama, Secretary, Ministry of Lands and Parliamentary Reforms, for kindly accepting our invitation. We are extremely grateful to Professor Deborah Levy who graciously accepted our invitation to deliver the keynote address. Our sincere thanks go to Professor Sampath Amaratunge, Vice Chancellor of the University of Sri Jayewardenepura for his unstinted support and encouragement. Our special thanks also go out to

Dr. U. Anura Kumara, Dean of the Faculty of Management Studies and Commerce for his continuous and abundant support and cooperation in organizing the conference.

We would also like to acknowledge with gratitude the Industry Forum panelists who sacrificed their valuable time to share their experiences and invaluable input with us. Our special thanks go out to the Chief Valuer, Ms. Pushpa Muthukumarana, Government Valuation Department-Sri Lanka, Dr. Jagath Munasingha, Acting Chairman, Urban Development Authority; Mr. Rasal Corey, RICS Sri Lanka Members Association, Ms. Wasanthi Adhikari, Municipal Assessor Colombo Municipal Council, Mr. R.A.R.M.N. Rajakaruna, President, Institute of Valuers Sri Lanka, for joining with us as collaborative partners of the ICREMV 2017. Our sincere thanks go out to our eminent panel of reviewers for the priceless service they rendered. We would like to gratefully acknowledge the support extended to us and contributions made by the students, academics, and non-academics of the Department of Estate Management and Valuation to make this conference a success. Our grateful thanks go out to sponsors, and media partner Ceylon Newspapers Ltd for their generous contributions, without which this conference would not have been a reality. Last, but not least, a big 'Thank You' to all authors and presenters for their invaluable contributions making ICREMV 2017 a success.

Prof. K.G.P.K.Weerakoon
Chair- ICREMV 2017
31.10.2017

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Message from the Vice Chancellor



As the Vice Chancellor of the University of Sri Jayewardenepura, it is a great privilege for me to send this congratulatory message to the International Conference on Real Estate Management and Valuation (ICREMV 2017) organised by the Department of Estate Management and Valuation (DEMVA), University of Sri Jayewardenepura in collaboration with Government Valuation Department, Institute of Valuers Sri Lanka, RICS Sri Lanka Members Association, Urban Development Authority, Sri Lanka and Colombo Municipal Council.

International Conference on Real Estate Management and Valuation (ICREMV) aims to hold a prominent position in the university academic calendar. ICREMV is one of the key events organised by the Research and Professional Development Centre of the Department of Estate Management and Valuation (DEMVA-RPDC), the University of Sri Jayewardenepura in collaboration with its industry partners. The event is a succession of two previous national conferences held successfully on Real Estate Management and Valuation in the years 2015 and 2016.

The theme of the conference focused on the SMART real estate, which is a novel concept to explore in the Sri Lankan real estate industry will provide a platform for the academia and corporate sector to interact and share their knowledge and expertise. This conference will undoubtedly enable you to be benefited from all aspects, and become a part and parcel of the national development.

Therefore, I appreciate the Head of the department, Conference Chair and the members of the organizing committee for their devotion and efforts in making this event a reality and also congratulate the researchers and the industry community for sharing expertise.

Let us join hands to create a better tomorrow for us all.

Prof. Sampath Amaratunge
Vice Chancellor
University of Sri Jayewardenepura

Message from the Dean



The Department of Estate Management and Valuation (DEMV) is an exclusive department within the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura since it facilitates for the sole degree program of its kind in Sri Lanka. As a result, this department is an established - strong arm of support to the Real Estate sector of the country, contributing towards its advancement for a period of over four decades by way of generating and disseminating knowledge through research and publications.

The International Conference on Real Estate Management and Valuation (ICREMV) organized by the Estate Management and Valuation Research and Professional Development Centre (EMV- RPDC) is a significant event on the department's calendar. This event which is organized in collaboration with the Government Valuation Department, Institute of Valuers Sri Lanka, RICS Sri Lanka Members Association, Urban Development Authority Sri Lanka and Colombo Municipal Council provides an excellent platform for academics and practitioners to publish relevant and contemporary research papers on multiple avenues related to this niche field of study. This year's conference theme is to shed light on "SMART Real Estate" which I'm certain is yet a novel concept within the local arena. Therefore, I believe that ICREMV 2017 will initiate an excellent dialogue that would stimulate interaction among the academia and the industry conclusively aiding national development.

Therefore, I take this opportunity to congratulate the organizers and participants for their invaluable contribution towards both the success of this event and the future of the Real Estate Sector in Sri Lanka. As the Dean of FMSC, I am confident that ICREMV 2017 will be a truly inspiring academic experience.

Dr U. Anura Kumara
Dean
Faculty of Management Studies and Commerce
University of Sri Jayewardenepura

Message from the Head



I am indeed honored to write a few thoughts on this momentous occasion of the International Conference on Real Estate Management and Valuation (ICREMV 2017), organized by the Department of Estate Management and Valuation, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura. I am proud to announce that the B.Sc Estate Management and Valuation (Special)

Degree Programme is accredited by the Royal Institute of Chartered Surveyors (RICS-UK) and it is the first land base higher education program producing graduates to the field of Real Estate Management and Valuation in Sri Lanka.

Real Estate is an imperishable asset in times of prosperity and times of financial distress. Accurate management of Real Estate requires research and continuous dialogue between academia and industry. Hence, I have no hesitation that this conference themed as “SMART Real Estate: Towards Unmet Socio-Economic Needs” provides a tremendous opportunity to disseminate the new knowledge on current issues among a rich diversity of authors and speakers in the field.

Having experience in two National Symposiums in 2015 and 2016, this International Conference is backed by two objectives, as to strengthen the network between university and industry with collaborative partnerships and to open a forum at international level. I take this opportunity to thank Government Valuation Department Sri Lanka, Institute of Valuers Sri Lanka, RICS Sri Lanka Members Association, Urban Development Authority, Sri Lanka and the Colombo Municipal Council for joining with us as collaborative partners of the conference.

The immense response I received since with the initiation of the conference is impressive. I highly appreciate the cooperation of the Vice Chancellor and the Dean (FMSC) in administrative work, while thanking the conference team led by the Chair, Professor K G P K Weerakoon. I sincerely thanks to all who contributed to the great success of the conference including the Keynote Speaker, students and sponsors, though individually not mentioned.

I wish you all a successful day.

Dr (Mrs) N. C. Wickramaarachchi
Head, Department of Estate Management and Valuation

Message from the Conference Chair



I welcome you all to the International Conference on Real Estate Management and Valuation (ICREMV) 2017. This conference is organised by the Research and Professional Development Centre (RPDC) of the Department of Estate Management and Valuation in collaboration with the Government Valuation Department Sri Lanka, Institute of Valuers Sri Lanka, Royal Institution of Chartered Surveyors-Sri Lanka, RICS Sri Lanka Members Association, Urban Development Authority of Sri Lanka and Colombo Municipal Council.

As the Chair of the Organizing Committee of ICREMV 2017, I express my sincere gratitude for your decision to participate in this annual meeting of academia and practitioners. I hope that the theme of the conference, “SMART Real Estate: Towards Unmet Socio-Economic Needs” is of contemporary significance in the nation’s journey towards prosperity and wellbeing of its people. Our intention is to offer a forum for academia, practitioners, and policy makers to discuss research findings, share experiences, and deliberate on the way forward. As such, the ICREMV 2017 creates a platform to deliberate on the theme “SMART Real Estate: Towards Unmet Socio-Economic Needs” from diverse perspectives with the intention of developing appropriate strategies for organizations and the nation. Hence, I hope that you will derive maximum benefit from the conference.

The organizing committee has worked towards making this conference a fruitful event. I am confident that the participants will find the sessions stimulating and useful. Finally, I wish to extend my heartfelt gratitude to all our participants, contributors, reviewers, and sponsors.

Thank you

Prof. K.G.P.K. Weerakoon

Chair – ICREMV 2017

Department of Estate Management and Valuation

SMART Real Estate: A dream, a goal, a strategy...!

The term “SMART” has several meanings as per the context when it is used as an adjective. When it is used with a place (i.e. smart place), it means a fashionable and upmarket place. For instance, a fashionable and upmarket restaurant means a smart restaurant (Oxford dictionary as in <https://en.oxforddictionaries.com/definition/smart>). The Oxford dictionary further provides some more synonyms for the term “smart” such as stylish, high-class, exclusive, chic, and fancy... Taking all together, it can be argued that these wider meanings imply some collective sense related with a dream, a goal or a strategy of individuals and groups attached with a place. For instance, a dream of one or few (individuals or families) may be a stylist house, a goal of many (a firm/organization) may be an exclusive office complex, and a strategy of many more (residence of a city or a province or a country) may be a vibrant harbour. In fact, all these i.e. stylist house, exclusive office complex, and vibrant harbour would be dreams, goals, and strategies of every one *if they* (Real Estates) act as **S**ustainable & **M**arketable, while fulfilling the **A**spirations of uses (society), will **R**einforce the wealth and **T**ransforms the economy of such nations. They are considered to be the **SMART** Real Estate.

Prof. R. G. Ariyawansa

Director

Research and Professional Development Center (EMV-RPDC)

Department of Estate Management and Valuation

Faculty of Management Studies and Commerce

University of Sri Jayewardenepura

Conference Tracks

Track 1: Real Estate Valuation in Market Economies

Track 2: Technology, Facilities and Information Management

Track 3: Green Development and Marketing

Track 4: Disaster Management and Resilience

Track 5: Professionalism, Ethics and Code of Conducts in the Real Estate
Industry

Track 6: Planning and Development for SMART Real Estate

Extended Abstracts

Betterment Contribution as a Tax Based Mechanism of Land Value Capture to Promote Genuine Real Estate Activities

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Abstract

This study concluded with the process called as “Genuine Real Estate Activity” (GREA) as expansion of the development activities from their own premises to their locality. It means Property Owners (PO) and Real Estate Developers (RED) should come out to contribute their locality rather than limit benefits of development activities to themselves. Because, central, provincial and local government supply infrastructure provisions that automatically increase the land value of surrounded properties and these infrastructure projects result in raising the value of private land, and the owner is thereby bettered through no merit of his own, he gains by the betterment through government infrastructure provision. Although, most of the POs are physical beneficiaries of the project outcome by enjoying themselves with recent development, some POs wisely get advantage from particular project as financial beneficiaries through involving real estate activities. Therefore, this study notified that such a POs and REDs should pay the Betterment Tax (BT) to prove their profitable activity as a Genuine Real Estate Activity (GREA). BT is one of the internationally recognized mechanisms of Land Value Capture (LVC) for recovering infrastructure cost from beneficiaries whose property directly receives benefit due to public infrastructure. This study analyzed some international experience for fixing and recovering BT. In addition, abolished Sri Lankan law of Land Betterment Charges Law No 28 of 1976 had been also evaluated. Finally for the purpose of calculation of BT, proposed basis was designed as “Approach for appraising LVC” by the support of valuation method as comparison approach and mathematical concept of absolute and relative changes. At the second half of the designing process, “Approach for recovering BT” had been designed by considering theoretical background and practicality. Finally, this study found that it would not be difficult to convince POs or REDs to encourage for paying BT, but the government and local authorities should have proper reinvestment strategy to convince them by using their betterment fund within their places for further development. In addition, corporation is important for project providers such as state of local government to join with POs and REDs to make cooperative strategy to reinvestment the betterment fund in the immediate neighbourhood.

Keywords: Real Estate, Real Estate Developers, Property Owners, Land Value Capture, Betterment Tax

Introduction

Infrastructure provisions automatically increase the land value of surrounded properties and these projects result in raising the value of private land, and the owner is thereby bettered through no merit of his own, he gains by the betterment through government infrastructure provision. Therefore, many land economists have argued that landowners must share in their portion of land value gain due to the specific infrastructure provisions for continues development of their local area. In such cases, the theory of value capture is a function of public financing that recovers some or all of the value that public infrastructure generates for private landowners. According to UN-Habitat (2011), Land Value Capture (LVC) is considered one of the most important driving forces of land management, as public bodies hope at least recover the costs of public infrastructure through the increase in land value. Techniques similar to LVC have been practiced in many countries for a long time, some dating back to Roman times (Smolka, 2013). Under LVC, Betterment Tax (BT) is one of the tax based mechanisms to recover the land value gain created by development activities. It is further defined by UKAID (2015) as any tax or charge on an increase in land value resulting from some public action, such as the issuing of development rights or the provision of infrastructure.

In Sri Lanka context, Betterment concept is in practice in case of compensation deduction and it is defined under heading of deduction according to section 47 of Land Acquisition Act No. 9 of 1950 (Government of Sri Lanka) which stated that where the compensation assessed under section 46 is for the acquisition of only a part of any land, the amount by which the market value of the remaining part of that land is likely to increase by reason of such acquisition shall be deducted from the amount of such compensation, the amount of the deduction being not more than twenty per centum of the market value of such part of that land as is acquired under this Act. It is clearly said that landowners lose part of their land are required to pay betterment whilst reminder escapes liability. Betterment is not itself, but on behalf of compensation. Some of the other statutory provisions such as UDA Law No 41 of 1978, NHDA Act No 17 of 1979, Mahaweli Authority of Sri Lanka Act No 23 of 1979 , Greater Colombo Economic Commission Law No. 4 Of 1978 and etc also follow same procedure within the limitation of compensation procedure. Clarke (1965) clearly defines the principle of Set-off called as compensation deduction that enable an acquiring authority to reduce the amount of compensation payable for injurious affection or land taken by the increase in value, due to public works, of adjoining land belonging to same owner.

BT falls under the category of Land Value Taxation (LVT). Capital Gain Tax (CGT) also is similar application like BT and falls under the category of LVT. According to UN-Habitat (2011), LVT never deal with the taxation of land but the taxation of land values. There are two primary facts about LVT that make it worthy of serious examination as a tax. One is that land cannot be moved. The other is that land is finite. These two facts mean that it is difficult to escape and that it is difficult to shift onto someone else. It is difficult to see same features in other form of taxation. Cullingworth (1987) clearly differentiate both CGT and BT. really the two terms are often used interchangeably and there is a fact no difference in principle between a general tax on a realized betterment value and tax on a realized gain. The difference arise that BT aim recouping betterment value created by specific public action, and CGT levy generally on all increase in land value. In Sri Lankan context, GGT is already in progress with policy design. On the other hand, complete application of BT is unfamiliar topic among Sri Lankan and it is not realized by Government of Sri Lanka to take step to introduce BT in addition to CGT.

In Sri Lanka, people are already against with the proposals of successive government such as reformation of new taxes and policies. In addition, they feel that developments and services are obligations of government. As well as, they argue that they are paying other form of indirect tax such as Value Added Tax (VAT) for this services and developments. On the other hand, it is also argued that the central and local governments, who are the investors of particular development activities, have a genuine right to impose BT as direct taxation. Such a fee can be source of finance for future public investment, as well as this way of public investment may reduce the burden of indirect tax payers.

By considering above argument and fact, the questions are that who is real beneficiaries? and who will pay the BT?. In addition to above question, it is significant for initial designing process to test the applicability of BT. Because, various types of public infrastructure provisions are considered as subject to charges and appraising process is especially challenging to work out to which extent such interventions add value to the nearby properties. Furthermore, betterment does not include the land value increment in case of community influences such as population growth, general inflation, community upgrade and land lord's improvement in land. Therefore, the calculation is difficult to find the portion of land value gain created by specific infrastructure provision, and also it is difficult to prove the amount which should be paid by Property Owners (PO) and Real

Estate Developers (RED) as BT. In general, designing and implementing of BT in order to appraising LVC and recovery BT is a complex and often elusive task. Therefore, this study concentrated on target group and the approach of recovering BT from them. And also, basis for the calculation of BT

Methodology

The center part of the study involved “Designing Proposed Basis for BT” for Sri Lankan situation. It is already discussed that the computation of BT is complex and often elusive task. To overcome difficulties of appraising LVC, United Nations (1976) recommends specific ways for recapturing plus value towards periodic and frequent assessment of land values in and around cities, and determination of the rise in such values relative to the general level of prices. Consequently, this study proposed a method as “Approach for appraising LVC and recovering BT” for the formation of calculation. Especially, approach for the LVC was supported by valuation methods, comparison of locations and concept of bid rent theory. Then the approach for recovering BT was drawn by considering real beneficiaries of the project. To examine the applicability of the basis, a case study area had been selected to apply the basis to get feedbacks and responses from real POs who has benefited from a selected project.

The selected case study area was Gandhi Park (GP) Project as recreational park with few important associate improvements. The Urban Development Authority carried out this project under the town beautification program on the direction of the Economic Development Ministry. The selected recreational park located in the Eastern region of Batticaloa within the local authority limit of Batticaloa Municipal Council. GP was landscaped from January 2013 to December 2013 with an associate improvement such as widened road and parking space. Within the case study area, 32 land lots have been directly benefited due to the Scenic view of recreational park and their associate improvements. Consequently, land value had been increased in this case study area more than general trend. To proof the value increment due to GP, land values were collected as secondary data in the surrounding region of Benefited Area (BA) called as Comparative Area (CA). In addition, basis of valuation such as income basis of valuation and comparable basis of valuation also had been applied to find land value in the CA. Finally, Statistical Package for Social Science (SPSS) had been applied to analyze the land value variation in the CA between two periods. Based on this land value analysis, two equations were formed to fulfill Step 2 and 4 to carry on proposed basis step by step as given in Figure 1

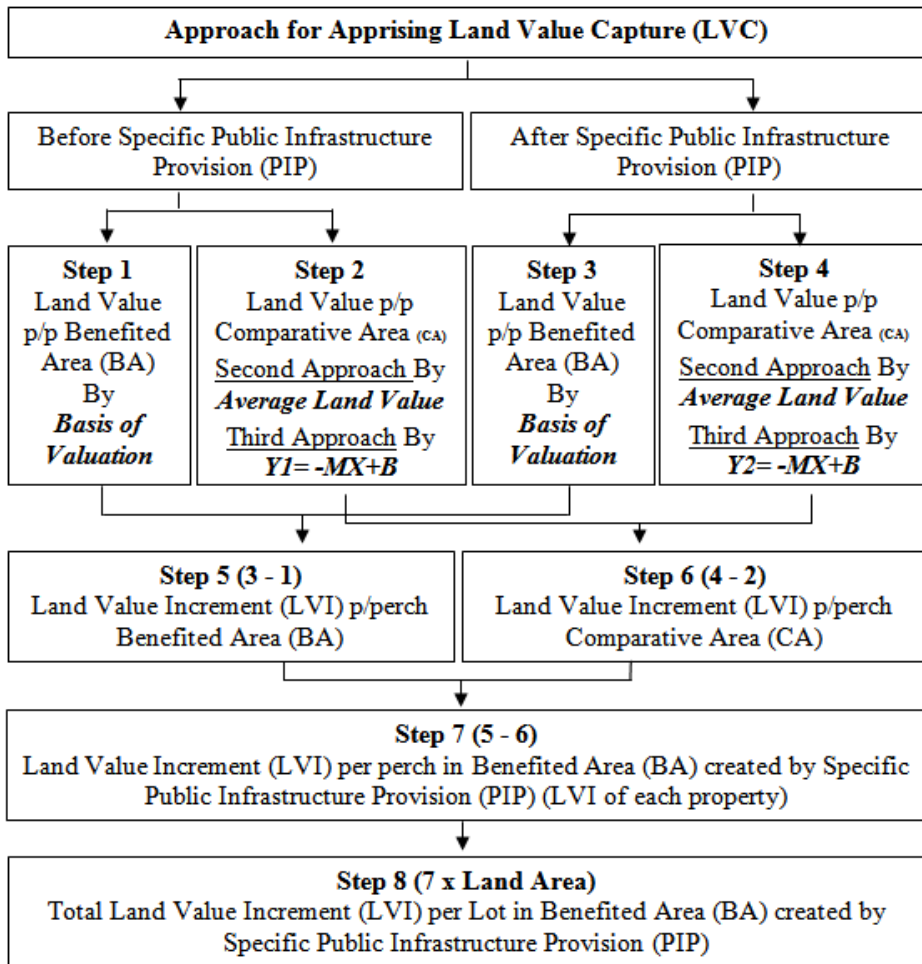


Figure 1: Approach for Appraising Land Value capture (LVC)

After completion of LVC, two recovery approaches were identified as Cost Recovery Approach (CRA) and Benefit Recovery Approach (BRA), both propose and provide five alternative options for POs and REDs to pay back their increment portion of land value according to their ability to pay. However, CRA is most suitable for REDs and BRA is most suitable for POs. It is given in following Figure 2

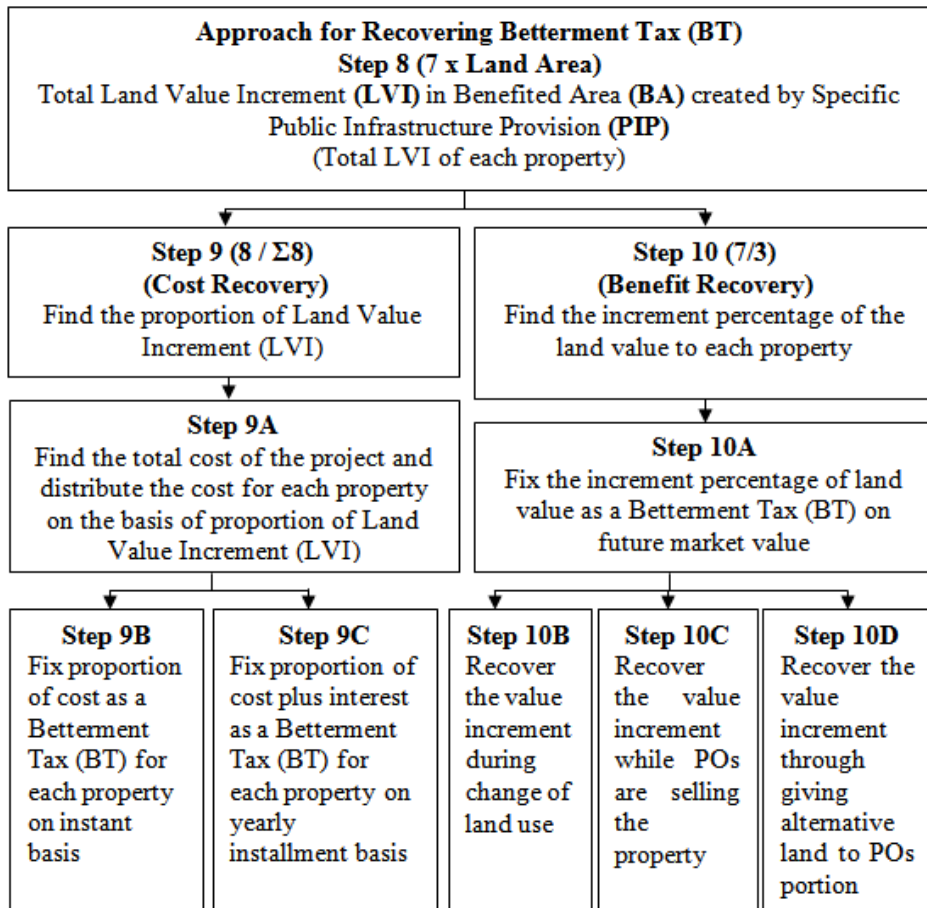


Figure 2: Approach for Recovering Betterment Tax (BT)

Results and Discussion

Initially this study identified existing situation of BT in Sri Lanka and International practice about appraising LVC and recovering BT. The study confirms that there are three ways in which a public authority can seek to recover betterment, namely recoupment, set-off and direct charge. In Sri Lanka context, Set-off is in practice in case of deduction on compensation which is defined under heading of deduction according to section 47 of Land Acquisition Act No. 9 of 1950 (Sri Lanka) and also some other statutory provisions also follow same procedure within the limitation of compensation procedure. It means, Betterment deduction rule is limited only for the remaining land of acquired portion. But, this study only concern about direct charge which falls under the category of tax in the alternative names of Betterment levy, Betterment tax and Betterment charge. In Sri Lanka context, direct charge is not in practicable in policy level. The Land Betterment Charges Law No. 28 of 1976 is one and only law in relation to the legal framework

of BT and it has been abolished immediately after the introduction due to the change of government in following year of 1977. Anyway in Sri Lanka, some community level projects follow the rules of betterment charge for their community development. In overseas studies, there are several methods applied all over the world. For example, the most well-known system of BT is practiced in Colombia where the country has been using this municipal financing tool since 1921.

Secondly, it was important to identify whether all the POs are subject to pay BT. Most of the countries fail to properly implement the BT due to misidentification of POs. In such cases, whole POs were requested to pay BT rather than selective particular POs who are real financial beneficiaries of the project. Although, Most of the land lots are positively attracted by particular project, owners of the land lots are not financial beneficiaries until they involve real estate activities. Actually, they are physical beneficiaries of the project and they also have genuine rights to enjoy the project outcome. However, some POs try to take advantage from the project outcome by involving real estate activities such as selling, renting, leasing and change of land use. Therefore, this study notifies that such a POs should pay the BT to prove their profitable activity as a Genuine Real Estate Activity (GREAA).

Thirdly, it is about designing and application proposed basis for BT. It also has been clearly disused above. The application of proposed basis within the case study area revealed real outcome of the GP project. It has been identified within the case study area where land value of selected 32 lots has been surprisingly increased due to GP project. Therefore, approach for appraising LVC has been applied to find the land value gain created by GP. for this purpose. The study has formed two equations based on the land value trend in the CA of the case study area to carry on the steps described in Figure 1 and 2. Especially, it is general situation in Batticaloa city centre where land values vary as per distance from city center.

Equation for 2012

$$Y1 = -MX + B$$

$$Y1 = - 6929X + 2,545,833$$

Equation for 2014

$$Y2 = -MX + B$$

$$Y2 = - 5955X + 2,939,538$$

After application of these equations within the BA consist 127.33 perches of commercial land lots belongs to 32 numbers of private POs, Step 5 was calculated as the average land value increment between before and after the GP as Rs. 797,000.00 per perch. Meanwhile, the land value increment in CA without the effect of GP was calculated based on above equation as Rs. 501,000.00 per perch

in the Step 6. Finally, Step 7 provided the LVC of Rs, 296,000.00 per perch within the BA created by GP and associate improvement such as widened road and parking space.

Finally, this study found that it is not difficult to convince POs or REDs to encourage for paying BT, but government and local authorities should have proper reinvestment strategy to use betterment fund. Normally, most of the tax revenues are transferred to government treasury to spend national level for various purposes. However, concept of the BT doesn't allow the funds to go away, and it should be reinvested in the immediate neighbourhood to be enjoyed by the tax payers. Therefore, it is important for project providers such as central, provincial and local government to join with POs and REDs to make cooperative strategy to reinvestment the betterment fund in the immediate neighbourhood. Next level of this cooperation allows REDs as POs to join with project providers to utilize betterment fund to redevelop the area. In this case study area 3 POs out of 32 also agreed to pay BT in the condition of cooperative development to develop immediate neighbourhood by using betterment fund. Therefore, this is clear that BT allows POs and REDs to contribute their portion of land value increment for further development of the locality. Actually, it is a process of expanding the development activities from their premises to their locality. This study comes to say that the process is called as Genuine Real Estate Activity (GREA)

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Opportunities and Challenges for Port of Colombo to become a successful hub port: Comparison of Port of Colombo's performance with the region

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Abstract

Over the past decades, major ports around the world have faced challenges due to significant changes in the logistical systems worldwide attributing to volume growth and increased demand. This situation led to rapid evolvement in ship designing and marine technology to increase the cargo carrying capacity of the ship. In every wave of growth in ship size, ports were compelled to acclimatize with new demands in cargo-handling technology and operations. Today's trend of all main line operators deploying mega-container ships continues to force key ports around the world not only to replace the existing cargo-handling systems with longer out-reach third generation of post-panamax gantry cranes and other equipment, but also to design the ports infrastructure to accommodate and handle these mega carriers. Each subsequent generation of containership is facing a limitation in number of port calls since not many ports being able to handle such mega carriers. Main line operators are incited to use the largest containerships possible on their shipping routes, since they are benefited from economies of scale. However, ports and inland transportation systems have to provide substantial capital investment if they expect to accommodate larger containerships. There are thus operational limitations to deploy ships bigger than 8000 TEU's in terms of ports of call and the required infrastructure to provide an acceptable loading and unloading throughput. In the container trade, specialization meant ports were required to invest in modernized quay walls, deepening access channel, expanded basins, turning circle, water depth at berths, ship-to-shore quayside gantry cranes with longer outreaches, expanded land-side container storage yards, improved and automated container handling equipment, and on-dock rail transfer systems. Also, large containership deployments require an efficient feeder

connectivity and substantial amount of cargo to be commercially feasible. The other related drive that affecting ports, is the features of country's integrated logistics system, reflected by an expanding network of improved inter-modal links based on the 'hub and spoke' system and the rationalization of overall logistics chain. This paper focuses on challenges and opportunities for Port of Colombo to become a Successful Transshipment Hub examining the empirical data and literature review of worlds' ports and container terminals.

Keywords: Marine Technology, Third Generation Post-Panamax, Integrated Logistics System, Inter-modal links, Hub and Spoke system

Introduction

The increasing number of containers and the mounting dimensions of vessels are adding stress to seaports to increase the capacity of container terminals. Ports are bound to respond with new terminals and added infrastructure facilities. According to Alphaliner, the worldwide reference in liner shipping states that around 78 percent of the 1.69 million of TEU of new ships slated for delivery in 2017 will be above 10,000 TEU's and more than half of deliveries will be ships of 14,000 TEU's and above.

The Port of Colombo has the potential to become as the 'hub port' in the region attributed to its strategic location, in the Far East to European gulf trade route. However 'Location' is becoming less important in modern days' highly competitive business environment where the technology is flattering as a determinant factor for shipping lines to cherry-pick the 'hub port' and to feed containers to and from other regional ports. As Jacob and Hall (2007) points out competitive advantage of terminal operators is increasingly based on the ability to integrate in logistics networks, to enhance the efficiencies within these and to extract value from them instead of solely focusing upon operational efficiency or location.

History of Port of Colombo evident over 2000 years for trading activities by Roman, Arab, and Chinese. (World port source) In 1505 the Portuguese discovered the Port of Colombo when first arriving to the island and subsequently established a trading post and built a fort in Port of Colombo in 1517. In 1638 the Dutch empire signed a treaty with King Rajasinghe the II of Kandy for monopoly over the island's trade goods and until 1796, The Port of Colombo was also the capital of the Dutch Maritime Provinces controlled by the Dutch East India Company.(Colombo Harbour Wikipedia) Modern Port of Colombo was initially built over 100 years ago by the British and Colombo Port Commission was

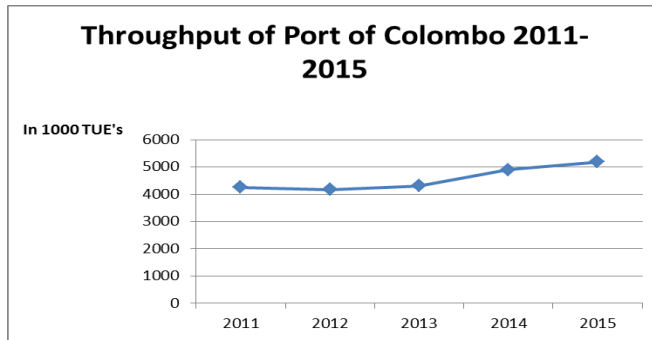
established in 1913. Much of the city was planned during the British occupation of the Port of Colombo. Post-independence changes that took place in the Port of Colombo were histrionic. With the formation Sri Lanka Ports Authority in 1980, Port of Colombo underwent a major transformation in handling containerized cargo during 1980's and 1990's due to its strategic location amidst trade routes, and subsequently Port became more attractive to main line operators than any other port in the Indian sub-continent.

In 2008, the port commenced a large-scale expansion project at a cost of US\$1.2 billion, which expected dramatically increase the port's capacity and capabilities. Government of Sri Lanka (GOSL) has identified the expansion of Port of Colombo to cater the increasing demand of services in the international shipping industry. The project is situated west to the existing port of Colombo comprising an area of approximately 600 hectares. The new Port has 3 container terminals each having 1,200m length and facilities to accommodate 3 berths alongside. The Port of Colombo which had a capacity about 4.5 million TEUs expected to be increased the total capacity by another 7.2 million TEUs in three separate phases under this development. The new harbor basin has a turning circle of 800m, basin depth of 18m and two way access channels of 570m width and 20m depth. The project consist a main breakwater of 5.14km length, secondary breakwater of 1.65km length.

Problem Statement

According to Alphaliner China's ports grew 7.3% y-o-y and this trend continued further, with April 2017 throughput up 8%. Container throughput at 250 ports around the world grew by an estimated 6.7% in the first half of 2017, stated Alphaliner. South Asia reported the highest rate of throughput growth in the first half with 9.3%. Alphaliner also reported that the world's busiest container port, Shanghai, saw a 10% increase in throughput for the first six months of 2017, almost reaching 19.6 million TEU. Singapore was up 6.4 percent to 16.1 million TEU with Shenzhen third at 11.8 million TEU. Altogether, the 250 ports in Alphaliner's survey have a combined annual throughput of more than 550 million TEU. Despite the comparative advantage Port of Colombo is having over the other ports in the region as mentioned in the introduction, the growth in terms of volume throughput was relatively flat compared to other hub ports.

Figure 1



Source : SLPA statistics

Sri Lanka has carved out a niche linking feeder connections in the Indian sub-continent trade to main sea routes on the back of its access to the Indian Ocean, as it aspires to become a mega –hub port in the region. However, while the country’s ports and logistical capabilities have benefitted from significant investment, industry players face challenges, such as outdated Customs procedures, lagging behind on the use of e-commerce platforms. This further resulted in weighing on its performance to promote ease of doing business in Sri Lanka. At present transactions that could take place on an electronic platform happen through multiple layers of documentation presented to multiple agencies compared with Singapore or Salalah in Oman, for an example, which allows for online clearance.

There is a tremendous potential to develop entrepot trade with development of free zones with its value adding process and off shore businesses. At present the free ports closed to the Indian sub-continent are in Singapore and Dubai which cater to many locations world-wide. Sri Lanka has a unique opportunity to serve India and China, the biggest power houses in the region. However country is lacking human capital resources and essentially need a supportable and sustainable system not only on competency building but also to retain skilled workers who are tempted to sought overseas job opportunities.

Sri Lanka also needs wider industry reforms citing issues like inconsistency in tax policy, market caps on foreign shares (i.e.60% local ownership laws) and the minimum exchange control tariffs which requires company to collect and pay a levy ratified by the central bank to local agencies. One can argue that these measures may have the connotation to protect local firms and encouraging reinvestments. However, as the country strengthens its foothold as the logistics hub, demands rising to set for an internationally benchmarked investment environment that will reinforce the industry and entice more foreign investments. Moreover these thoughtless measures would only increasing costs compared to

regional ports. World Bank's Logistics Performance Index (LPI) provides the most comprehensive international comparison tool to measure the trade and transport facilitation friendliness of countries. Sri Lanka positioned 89th out of 160 countries in the ranking for 2014. A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm. Sri Lanka ranked 107th out of 189 economies in the world for ease of doing business.

Literature Review

Seaports make very important contribution in competitiveness of the national economies. Cullinane and Song (2002) and Sanchez et al (2003) stated that seaports is a critical link in supply chain, highlighting the level of performance and productivity of the ports is very important at a rate that emphasizes affect the competitiveness of countries. Development of low performance levels in seaports, low cargo handling costs, obtaining the presence of integrated port services and other elements of a global distribution network is considered as highly important nowadays. With the globalization of national economies, demand is rapidly increasing transport between continents. Caldeirinha¹ et.al., (2013), describes containerization has stimulated shipping services globalization through the emergence of alliances and acquisitions in the liner industry (horizontal integration). Furthermore, intermodality has led to powerful global logistic door-to-door and other added-value service providers (vertical integration). For container cargo shippers and logistic chains, port and container terminal selection is made according to their location, proximity to/from the market, port charges, freight rates, turnaround time, cargo value and volume, liner services frequency and trade routes, although the decision often depends on the overall network service organization and not on the port or terminal per se Yap & Notteboom, (2011). Besides the port strategic location, shippers and shipping companies also look for port service reliability, service quality and lower costs per call, lower charges and short turnaround times Caldeirinha¹ et.al., (2013).

One distinctive feature of the contemporary container port industry is that competition between container ports is more intensive than has previously been the case. Cullinane and Wang (2006) Port markets used to be perceived as monopolistic due to the exclusive and immovable geographical location of the port and the unavoidable concentration of port traffic. However, the rapid development of international container and intermodal transportation has drastically changed the market structure from one of monopoly to one where fierce competition is rampant in many parts of the world. Many container ports no

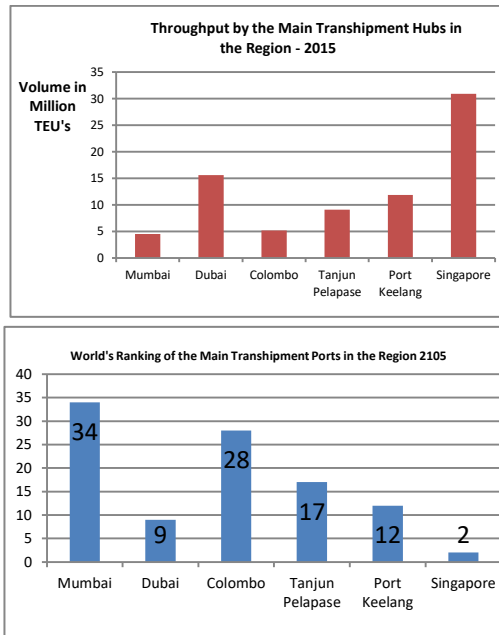
longer enjoy the freedom yielded by a monopoly over the handling of cargoes from within their hinterland. Instead, they have to compete for cargo with their neighboring ports. Ports are now not only competing with nearby ports, but also with ports relatively far away. For example, the Port of Gioia Tauro (South Italy, Mediterranean Sea) competes with the Port of Rotterdam (West Netherlands, North Sea) for the continental European market.

Once the integration of ports in the transport network had been recognized, the main challenge was the definition of the modalities of integration. (Trujillo & Tovar, 2007). The inclusion of ports, as interconnection points, is critical to the performance of intermodal transport within a multimodal infrastructure network. For instance, to reduce traffic congestion on land and to better interconnect continental- and peripheral countries and islands, the EC recommends the creation of a network of “sea motorways” which would be fully integrated in the European Transport Network.

Cullinane (2012) pointed out customer satisfaction is an effective variable. Paper discuss following independent variables such as Greater influence over port choice decision and competitiveness, Tailor-made solutions, Time in port of both ships and cargo as the output of the port production process, Control for congestion time to focus solely on handling efficiency, Better reflection of inventory costs to shippers, Allows for choice aspect of transshipment ports where speed of transit to feeders is primary concern to port choice decision maker, rather than cargo handling efficiency at berth. Caldeirinha1 et.al., (2013), (2013) highlights customer focus is a critical issue for container terminal performance, because terminals need to show flexibility/agility in adapting new requirements and market changes, making the necessary adjustments to meet increased customer demands.

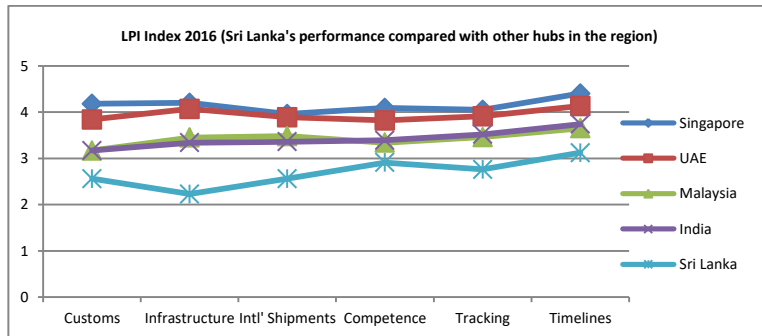
Comparison of Port of Colombo’s performance in the region (with secondary data)

Port of Colombo ranked as 28th in the world’s Top 50 ports by the world Shipping Council in 2015 - with the throughput of 5.18 million TEU’s. However, when compared to the two adjacent ports situated on either side on the main east-west sea route, Singapore ranked no 2 with 30.95 million TEU’s, and Dubai ranked no 9 with 15.6 million TEU’s. Other regional ports listed ahead of Port of Colombo in the Top 50 were Port Keelang at no 12, Tanjung Pelapase at no 17. Javahal Neru Port Trust, Mumbai ranked at no 34 behind Port of Colombo in the Top 50 list in the year 2015.



Source: Data analyzed from world shipping council report

The Logistics Performance Index (LPI) is based on a worldwide survey of operators on the ground, providing feedback on the logistics “friendliness” of the countries in which they operate and those with which they trade. They combine in-depth knowledge of the countries in which they operate with informed qualitative assessments of other countries where they trade and experience of global logistics environment. The international LPI is a summary indicator of logistics sector performance, combining data on six core performance (The efficiency of customs and border clearance, The quality of trade and transport infrastructure, The ease of arranging competitively priced shipments, The competence and quality of logistics services, The ability to track and trace consignments, The frequency with which shipments reach consignees within scheduled or expected delivery times) components into a single aggregate measure.



Source: Data analyzed from LPI 2016

The LPI is constructed from above mentioned six indicators using principal component analysis (PCA), a standard statistical technique used to reduce the dimensionality of a dataset. The output from PCA is a single indicator which is a weighted average of those scores indicated in the LPI. Based on the scorecard, Sri Lanka is lagging behind in all 6 components compared to other countries in the region that are competing with Colombo for hub status. Sri Lanka is positioned 89 out of 160 countries in the LPI. Singapore ranked world's no 5 whilst UAE ranked no 13. Malaysia and India were ranked no 32 and 35 respectively.

Conclusion

Without infrastructure there is no connectivity. Without connectivity there can be no economic exchange. Without economic exchange there can be no growth. Without growth there is no prosperity. Without prosperity infrastructure cannot be funded. And so goes the cycle. Gal (2016) Without the necessary connectivity, quality and performance on the part of all transport networks, whether ports, inland containers container terminals, container freight stations, motorways, metropolitan roads, logistics cannot perform its role in delivering national prosperity. Government also needs to act to promote productivity through investment in infrastructure and necessary actions to tackle resource and skills shortage and establish a framework to ensure that local transport and logistics policies work with the grain of business.

Study findings through literature review is consistent with Caldeirinha¹ et.al., (2013), "A better terminal management, logistic integration and attention to customer demands enhance and attracts more volumes and vessels." In today's context Port of Colombo has to compete with regional hub ports such as Salalah, Dubai, Singapore, Tanjung Pelapas and port klang where the investments for these ports by major global terminal operators which enabled these ports to improve terminal productivity, marketing effectiveness and service standards at competitive

price. To achieve the objective of positioning Port of Colombo as the regional mega hub-port to serve the key sea routes which are just 20 miles off the southern tip of the island, Sri Lankan policy makers needs to strategize and plan to develop multi-modal transport links, upgrade infrastructure, improve on ease of doing business, and simplify the tax structures, productivity improvements in all connected authorities through automation and elimination of non-value added barriers and an effective program to attract foreign direct investments. It requires a dedicated national task force consisting industry experts and a supportable framework to address the issues pertaining to lack of infrastructure, funding, and legislative constraints.

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Psychological Risks of Resettlers in Development - Induced Displacement and Resettlement (DIDR) planning reference to Moragahakanda Resettlement Project

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Abstract

In resettlement planning literature, much has been written on economic, land compensation, infrastructure and services aspects of the land. Psychological risks and stresses of resettled communities, however, have been under-researched. The current research looks at the psychological risks of resettlers in a Development-Induced Displacement and Resettlement (DIDR) project in Sri Lanka. Focusing on the stages of resettlement planning process discussed by Scudder and Colson four-stage model (1980) and the psychological risks discussed by Cernea's (1990) impoverishment risks and reconstruction (IRR) model; This study evaluates the significant level of the psychological risks faced by the communities in DIDR projects in Sri Lanka relating to before and after resettlement. Moragahakanda Resettlement Project (MRP) was selected as the case study which is located in Naula DS division of Matale District, Central Province, Sri Lanka. A questionnaire survey, documents and field observations were used to evaluate the current psychological risks. The responses received from multiple choice questions were analyzed by Significant Point (SP) index. The research findings point that there are no conspicuous changes of psychological risks related to before/after resettlement has occurred in resettlers. The findings highlight that the psychological risk levels in transition stage have remained the same level in the potential development stage. This research provides a systematic guidance enabling the physical planners to prioritize the most significant psychological risks which should be considered in the decision-making process of DIDR projects.

Keywords: Psychology, Risk, Re-settlers, DIDR

Introduction

Anthropologists have given the first theoretical explanation on resettlement highlighting in detail the impoverishment effects. Later many studies were taken by the social scientists (Rawls, 1971) to develop a theory to explain the ethics of DIDR. This was labelled as "Rawls general conception" of justice which states that, "all social values such as liberty and opportunity, income and wealth, and the bases of self-respect are to be distributed equally unless an unequal distribution of

any, or all, of these values, is to everyone's advantage (Rawls, 1971). In a similar vein, in 1980s Scudder and Colson developed a four-stage model to describe how people and social-cultural systems respond to resettlement. Scudder divided the entire resettlement process into four stages and these stages were labelled as, planning and recruitment, transition, potential development and handing over or incorporation. Involuntary resettlement programs, however, were not significantly addressed in the Scudder-Colson framework. As a result, to address the concerns of Involuntary resettlement Cernea's Impoverishment Risks and Reconstruction (IRR) model was developed in the 1990s. The model discussed eight types of risks. Including, landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property resources, increased morbidity and mortality and community disarticulation. Later Downing and others have added, loss of access to public services, disruption of formal education activities, and Loss of civil and human rights into the list. But the model has failed to acknowledge the stage which the risk becomes significant (Stanley, 2004).

In the current study, we attempted to combine the four-stage model and the IRR model to estimate the most significant psychological risks in stages two and three of resettlement planning process.

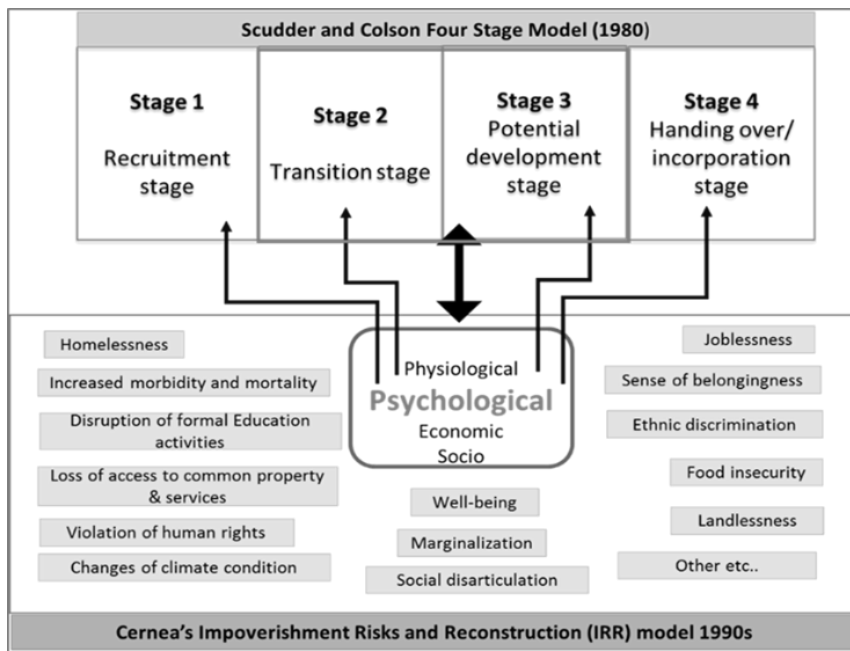


Figure 1 : Research Design and Conceptualization

Research Methodology

This study used a mixed methods approach to measure psychological risks associated with resettlement projects. A target sample population of 338 respondents in the transition stage and 903 respondents in potential development stage drawn from the project affected area was selected to conduct the survey. The sample was designed to be a balance of male and female representing affected GN divisions. Stratified random sampling method and systematic random sampling method were used to select the size of the sample.

In order to measure the significance level of psychological, the study used the following stages:

1. Development of ranking scales
2. Field survey
3. Calculation of Significance Points (SP) Index
4. Rating the identified psychological attributes base on its significance

The procedure for developing ranking scales are further described in Table 1. As the table below shows, the study approach includes five indicators with separate ranking scales to assess psychological risks. Table1 was presented to survey respondents in the questionnaire and asked to complete their preferences.

Table 1: Indicators with separate ranking scales

Indicators				
Magnitude(M)-	Irreplaceable(I)-	Duration (D)-	Scale (S)-	Probability(P)-
Life satisfaction	loss of resources	Length of the time over which, resettlers are able to change or be changed psychologically	The social sector which is most vulnerable for psychological risk	How likely that the psychological risk may occur
8- Very high	5- Very	5- Permanent	5- Community	5- Definite
6- High	4- High	4- long term (>20 years)	3-Family	4- High
4- Moderate	3- Moderate	3- Medium term (5-15 years)	2-Individual person	3- Medium
2- low	2- low	2- Short term (0-5)	1- None	2- Low
1-None	1- None	1- Transient		1- Improbable

After ranking these factors for each psychological risk, the significance level was assessed using following the equation:

$$SP = (M + I + D + S) * P$$

Finally, the identified psychological risks were rated based on the derived SP index values. The maximum value is 100.

Table 2 : Definition of significance ratings (positive and negative)

SP value	Index	Psychological significance	Decision Rule
SP > 60		High significance	Psychological risk which may influence the decision about whether or not to proceed with the project
SP 30- 60		Moderate significance	Psychological risk where it could have an influence on the decision unless it is mitigated
SP < 30		Low significance	Psychological risk with little real effect and which should not have an influence on or require modification of the project design or alternative mitigation
+		Positive significance	Psychological risk that is likely to result in positive consequences / effects

Findings

In the literature review, twelve psychological risks of DIDR were identified, Marginalization, Increased morbidity and mortality, Social disarticulation, Landlessness, Joblessness, Disruption of formal education activities, Loss of access to common property and services, Violation of Human Rights, Loss of Belongingness, Ethnic discrimination and Changes in climate condition. The level of significance of above risks was measured in each stage of the resettlement process.

Results of homelessness indicate that loss of group's cultural space and identity remain high in both stages 2 and 3, however, the loss of quality and the condition of the house remain low due to the lessened sense of identity. The drop of social status under marginalization has increased to high from moderate, however, loss of mutual interactions between neighbours remains moderate between the two stages. Dismantle patterns of social organizations and interpersonal ties have increased from moderate to high, yet, erosion of resettlers' relationships with host community remains at the same risk level.

Health status is a sensitive indicator of development. The decline in health in increased morbidity and mortality levels stay at a moderate level in stage 2 and 3 of the society due to already established medical establishments in stage 1. Further,

counselling services were already established early stages and trauma levels were at the minimum levels. It may have helped to keep an outbreak of relocation diseases at a moderate level at all time. A serious decline in health levels results from displacement-induced social stress, insecurity, the outbreak of relocation-related diseases and psychological trauma caused by displacement.

The results indicate that drop of land extent causes high psychological in both stage 2 and 3. However, the drop of productivity of land in stage 2 causes high-risk levels in stage 3. Joblessness causes high risk when people are resettled in a new place. In this study, two dimensions tested in the attribute of joblessness are the loss of wage employment and the shift in the occupational patterns. Findings show the loss of wage employment due to the resettlement causes joblessness in the society which increases the risk levels from moderate to high. The shift in the occupational pattern is yet another form of economic dispossession faced by the displaced people. The study data indicate that the shift in the occupational patterns causes high-risk levels at 2 and 3 stages.

It was noted in resettlement process that the loss of educational opportunities disrupts the formal education activities. As a result, risk levels may change from positive to high. It all depends on the facilities available in the newly settled destination. If the facilities are located far away from the resettlement area and also students are unable to find a suitable place in the school, the risk level is likely to escalate. In this study, the survey was conducted immediately after the beginning of the re-settlement period. Public services such as banks were not properly developed in the area during that time and hence the risk level of the respondents was unchanged between stage 2 and 3. Loss of access to common resources are usually affected between stages of the resettlement. Many people in agricultural areas in developing countries who are about to resettle experience high risk due to their dependence on common natural resources (Cernea, 2004).

The displacement of people by forced movement from their locality or environment and occupational activities is categorized as a violation of human rights. Development-induced displacement is a social problem affecting multiple levels of human organization from tribal and village communities to well-developed urban areas. In this study, two dimensions related to violation of human rights were studied: loss of ability to involve in making decisions and the insufficient compensation payments. The risk associated with the loss of ability to involve in making decisions remains unchanged at low levels in stage 2 and 3, however, it remains high during the stage 2 and 3 for insufficient compensation payments. This is a violation of human rights, nevertheless, it is happening in many resettlement projects of Sri Lanka. People are vulnerable on whether they

will receive sufficient amount of compensation to rebuild their life throughout the resettlement period which makes the level of risk high.

The sense of belonging means acceptance as a member or part in a resettlement and this is a common human experience. A sense of belonging is a human need, just like the need for food and shelter. Feeling that you belong is most important in seeing value in life and in coping with intensely painful emotions which usually occurs during the resettlement stages. As such, the risk was high during this settlement project in both stages 2 and 3. The risk associated with the disturbance to cultural affairs remains at the moderate level in both second and third stages due to the fact that 1571 households belong to Sinhala community whereas only one family belongs to Muslim community whose religions are Buddhism and Islam respectively. This position will not lead to any social or cultural disturbances after resettlement process.

Deviation of climatic conditions is likely to cause disruptions in agricultural production which is a major cause of the high-risk situations in stages two and three. Farmers are particularly followers of the climate patterns as their production depends upon the deviation of climatic conditions. This situation is likely to get worse when someone relocates from the original place of work. Farmers are familiar with the previous location in terms of getting inputs for agricultural production and changing weather patterns, however, after the relocation re-establishment of the familiarity becomes difficult. This is the major cause of the high-risk level. (Refer Annexure 1)

Conclusion

Findings of this study indicated that resettled communities are very much vulnerable to psychological risks especially for 12 risks selected in the two stages of resettlement planning process. Out of the above risks, homelessness, landlessness, joblessness and loss of belongingness were ranked as the top four. These are the aspects future resettlement planners should consider seriously in relocating people in Sri Lanka. Similarly, some other researchers have also found the similar themes associated with psychological risks in development projects (Cerena, 2003; Scudder 1980; Colson, 1971; Stanley 2004; Downing, 2009; Robinson, 2003).

Drawing on the experiences and lessons learnt from MRP, this study proposes that the future resettlement mitigation or improvement associated with DIDR should consider rebuilding psychological attributes based on its level of significance. Further, it needs to increase the local capabilities to access the crucial

resources which are directly involving to reconstruct the re-settlers' livelihood. The main findings of this study have implications for a broader understanding of psychological questions for the DIRR projects, especially in relation to the development of policies and programs to enhance psychological concerns through smarter and more sophisticated social and physical environmental programs. The study findings demonstrate that planners need to consider ways to improve psychological conditions and increase the emotional well-being of resettlers. It is important for planners to consider the emotional concerns of all stages of the resettlement process. If these risks are taken into account, future resettlement will be more successful and bring positive results and outcome.

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ANNEXURE 1										
Attributes	Dimensions (D)		Stages	M	I	D	S	P	SP Index	
1.Homelessness	D1	Loss of group's cultural space and identity	S2	6		4	5	5.5	83	High
			S3	6.5	4.6	4	5	5.7	115	High
			S2	6.4		3.4	3	4	51	High
	D2	Loss of quality and the conditions of house	S3	1.9	2.2	3.4	3	2	21	Low
			S2	5.5		2.2	3	4	55	Moderate
			S3	7.2	3	3.3	3	4.7	63	High
2.Marginalization	D1	Drop of social status	S2	5.5		2.2	3	4	55	Moderate
			S3	7.2	3	3.3	3	4.7	63	High
			S2	5.5		2	3	4.25	45	Moderate
	D2	Loss of mutual interaction between neighbors	S3	6.1	3.3	3.6	4.2	3.9	67	High
			S2	6.5		2.7	3	4.5	55	Moderate
			S3	6	3	2	3	4.5	63	High
3.Social disarticulation	D1	Dismantle patterns of social organization and interpersonal ties	S2	4.5		2.4	3	4.2	42	Moderate
			S3	4	4.3	2	3	4	53	Moderate
			S2	5		3.2	1	4	37	Moderate
	D2	Erosion of resettlers' relationships with non- displaced relations	S3	5	2.7	2.2	1	3.5	38	Moderate
			S2	5.3		4.4	3	3.8	48	Moderate
			S3	5.3	3.3	4.4	3	3.4	54	Moderate
4.Increased morbidity & mortality	D1	Decline in health levels	S2	7.4		5	3	4.3	66	High
			S3	6.5	4.4	5	3	4.2	79	High
			S2	6.5		3.4	3	4.2	54	Moderate
	D2	Outbreak of relocation diseases	S3	6.5	4.1	3.25	3	4.2	71	High
			S2	6.6		3	3	4.2	53	Moderate
			S3	6.6	4.2	3	3	4.2	71	High
5.Landlessness	D1	Drop of land extent	S2	6.4		3	3	5.5	68	High
			S3	6.4	4.2	3	3	4.2	70	High
			S2	5.3		5	5	4	61	High
	D2	Drop of productivity of land	S3	1	1.3	3	5	1	10	Low
			S2	5.5		2.3	4.5	4.1	50	Moderate
			S3	6.2	4.3	3	5	3	56	Moderate
6.Joblessness	D1	Loss of wage employment	S2	5.5		4.7	5	3.8	58	Moderate
			S3	5	3.5	4	5	3.5	61	High
			S2	2		2	5	2	18	Low
	D2	Shift in the occupational pattern	S3	2	2	2	5	2	22	Low
			S2	6.4		4.4	3	4.5	62	High
			S3	5	4	4	3	4.56	73	High
7.Disruption of formal education activities	D1	Loss of Educational Opportunities	S2	5.7		5	3	4.8	66	High
			S3	3.4	4.4	4.25	3	4.4	66	High
			S2	4.2		2	5	4.5	50	Moderate
	D2	Insufficient compensation payment	S3	5.3	3.6	2.7	5	3.53	59	Moderate
			S2	5.5		5	4	4.5	65	High
			S3	6.6	4	5	4	4.5	88	High
8.Loss of access to common property and services	D1	Loss of access to some public services (banks, hospitals)	S2	6.2		3	3	4.2	71	High
			S3	6.5	4.1	3.25	3	4.2	71	High
			S2	6.5		3.4	3	4.2	54	Moderate
	D2	Loss of access to common resources (forest products, common grazing areas)	S3	6.5	4.1	3.25	3	4.2	71	High
			S2	6.6		3	3	4.2	53	Moderate
			S3	6.6	4.2	3	3	4.2	71	High
9.Violation of Human Rights	D1	Loss of ability to involved in making decisions regarding the project	S2	6.4		4.4	3	4.5	62	High
			S3	5	4	4	3	4.56	73	High
			S2	5.7		5	3	4.8	66	High
	D2	Insufficient compensation payment	S3	3.4	4.4	4.25	3	4.4	66	High
			S2	4.2		2	5	4.5	50	Moderate
			S3	5.3	3.6	2.7	5	3.53	59	Moderate
10.Belongingness	D1	Feeling of Isolation	S2	5.5		5	4	4.5	65	High
			S3	6.6	4	5	4	4.5	88	High
			S2	5.3		2.7	5	3.53	59	Moderate
11.Ethnic discrimination	D1	Disturbance to cultural affairs	S3	5.3	3.6	2.7	5	3.53	59	Moderate
			S2	5.5		5	4	4.5	65	High
			S3	6.6	4	5	4	4.5	88	High
12.Climatic change	D1	Deviation of the climatic conditions	S2	5.5		5	4	4.5	65	High
			S3	6.6	4	5	4	4.5	88	High
			S2	5.3		2.7	5	3.53	59	Moderate

Study on the Effects of Damage and Betterment on Expropriation of Land Under Land Acquisition Act of 1950: Special Reference to Injurious Affection, Separate Entity and Betterment

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Introduction

State is empowered itself to acquire any land for public purpose (which is not specifically stated in the Act) under section 38(a) of Land Acquisition Act No. 9 of 1950. However, for this, the forms of land tenure, other legal system, political background, and the community participation etc in the country have severe effects on the system of expropriating land for public purposes and the nature of compensation payment for such acquisitions. In a public development project of a country, the expropriation is always a measure of last resort in the transfer of land ownership rights from private hands to community. A more gradual means of transferring the ownership to the public authorities is through the establishment of private treaty right, which gives public authorities the rights of direct purchase of any land that is offered for sale by a private individual (Dochester, 2011). In this scenario, the rationale of the Act is to compensate the damages and losses caused as a result of expropriation of a property for public purposes. However, it is evident that current system of compensation has given rise to various problematic issues due to a great dissatisfaction by the owners whose lands were acquired under the Act. The Act is about 67 years old and this may be one of the reasons to the problems arose today because legislature framed the provisions of the Act to cater the problematic environments then existed.

The road expansion, construction of high ways, and construction of reservoirs and irrigation projects are in the prominent place in the development activities within the island as per the past and present case

are concerned. In this process, the private lands are being acquired in small pieces and strips that appear to have created many problems in terms of equitable compensation.

Conventionally, the owner's consent is ignored, in the event of acquisitions by the state and the computation of compensation is done under the provisions of the Act (Stand, 1971). Hence, there are arguments among scholars and professionals that present provisions in the Act, such as "entity principle" as discussed in the case of "MC Colombo v Letchman Chetty, (1946)" and injurious affection that may not fully compensate the real value of property lost by the owner (Hettiarachchi, 2016).

It was observed that at present, different methods of calculation of compensation are being practiced for lands acquired under the Act as follows:

- (a) Calculations clearly based on the provisions of the Act.
- (b) Calculations based on the statute by which the acquisition of lands is carried out. (eg. Urban Development Authority Act of 1978).
- (c) Additional allowances paid other than the payments calculated under the Act. Regulations (2008) passed by the legislature.

Identification of problem

In spite of the measures taken by the state to compensate the owners whose lands were acquired under the Act, there are situations due to which claimant are still suffering from damages and unjust enrichments. Preliminary survey revealed that claimants are dissatisfied with the current quantum of compensation under the Act. Among current development projects road widening and construction of public high way take a prominent place and the payment of compensation is restricted as most of land acquisitions limited to smaller extents comprised of strips of land where the value is comparatively on lower side. On the other hand, it is evident that undue benefits too exist as a result of acquisition of land for public purpose. Hence the identified factors from this scenario are the insufficient compensation and undue betterment. This problem needs to be resolved to maintain a balance between losses and unjust enrichments.

Scope of Study

The study is limited to concepts of “injurious affection”, “separate entity” and “betterment” in the Act.

Objectives: this study attempted,

- To identify the damages and undue benefits to the society due to land acquisitions in terms of provisions of Land Acquisition Act with reference to the “injurious affection”, “separate entity” and “betterment”.
- To suggest resolution to compensate the real damage and minimize undue benefits to the society.

Methodology

The objectives were framed focused on identified problems cropped up from the compulsory acquisitions of land under the Act. This encompasses the concepts of unjust enrichments and damages occurred in the selected areas of injurious affection, separate entity and betterment. In spite of the unavailability of past studies directly related with the subject matter the questionnaire survey and interviews with professionals in valuation and legal fields and discussions with claimants were done to collect primary data. Secondary data collected from published literature, doctoral and master thesis and relevant statutes.

Judicial decisions were studied and analyzed with reference to the interpretation of terms of damages and compensation; and how it should be applied in real terms, in an event where actual loss has to be compensated against the loss. Since the paper intended to assess the injustice in current systems of compensation in Sri Lanka, more relevant judicial decisions and the views of judges were examined with special reference to the principles stemming from Law of Equity.

The data related to unjust benefits and losses in terms of the Act collected from the field, were compiled and analyzed to achieve the set targets of the paper.

Literature Review

Compensation

In *Livingstone vs Rawyards Coal Company* (1980), it was said that in setting a sum of money to be given for reparation of damages, you should as nearly as possible get at that sum which will put the party who has suffered, in the same position as he would have been in, if he had not sustained the wrong for which is now getting his compensation. The term compensation refers to an act of giving something to someone to compensate for loss, suffering or injury, which implies that no one in society should be unjustly affected by an act of another (Hettiarachchi, 2016). In other words as a result of payment of compensation, any person who suffered should be reverted to the position where he was in, before such suffering, occurred (Peiris, 1972). The compensation is also defined as a solution, which refers to the sum of money payable to a person to make up for loss or inconvenience and sum of money payable over and above the actual damage as compensation for injured feeling (*Watson v Murry*, 1955); (Paul, 2012) and (Calamlaw .Com/blog/legal-updates/unjust enrichment, 2015).

Legal term of market value

All measures of damages, whether based on market value or replacement cost should comply with the principle in Tort that claimant should be restored to his former position (legal definition). In the case of *G.A. Southern Province vs Silva*, Bonsor CJ held that market value of a house does not depend on the money expended on it, nor on the difficulties which had to be overcome in building it. Withers J held that the market value of a given land depends on its extent, situation, relative position and its adaptability for any particular use; also upon the rent and rate of interest obtained in the district. Among the tests of market value of a piece of land, it is the price which any one would give for it at a public auction and the price given at recent sales for land similarly situated. As in the case of *Steven vs. Munasinghe*, it was held that the market value of a land acquired by the crown should be determined by the best use to which it could be put, there must be evidence that there would be a demand for the land when put to such use having regard to its nature and situation.

In the case of *Municipal Council of Colombo vs Lechiman Chettiar* (1942), it was held that Land Acquisition Act empowers the government

to acquire any land that it thinks necessary for a public purpose. In the appeal forwarded to the Privy Council which took a different view and their Lordships set aside the decision of the Supreme Court and restored the original decision of the District Court which allowed compensation based on the strip value. This is a celebrated case decided on the early ordinance before the current Land Acquisition Act was in force.

The judgment of the Privy Council in the above case endorsed the separate entity principle in the valuation of land for compensation purposes. This was decided before the enactment of LA Act.

Ponnambalam et.al v M.C. Commissionor (Land Acquisition) confirmed that the market value of the land which is sought to be acquired under the Act of 1950 should be ascertained as though all the owners of separate interests in the land have combined to sell it, for what is acquired is the aggregate of rights in that land and not merely the soil rights in it. It was clearly decided that existing rights, such as easements, could be acquired, but not those that did not exist at the time. In any event, the compulsory purchase order must clearly specify the rights that authority is seeking to acquire.

Statutory definition of market value

Section 45 of the Act defined the market value as the price fetched for a land in an open market when sold by a willing seller. In other words it means that the price expected to have realized in the open market as an entity.

Finding of the Study

As per data obtained from the interviews and questionnaire survey with qualified professionals, over 95 percent of valuers endorsed the concept that compensation should be equal to the actual loss to the claimant, but the valuation as 'separate entity' does not always give actual loss to the claimant, where injustice caused creating unjust enrichments by the state. In this regard, the courts also in the view of that the compensation should be equal to the actual loss (Victoria Laundry Ltd. v Newman 1949).

In such circumstances, it is no doubt that under current practice, the compensation paid under the Act creates many instances of losses and

unjust enrichments and in such situations principles stemming from laws of natural justice are strongly violated.

At per the interviews held and in response to the structured questionnaires filled by incorporated real estate valuers and real estate managers strongly responded to the effect that the actual loss caused to the owner of acquired land under the Act, shall be fully compensated not allowing any gap between the actual loss and the estimated compensation. This position has been confirmed by 90 percent of lawyers interviewed.

Hundred percent of interviewers strongly agreed that the compensation under provisions of the current Act is insufficient and cause damages to one party while other party is unjustly enriched. This complied with the judicial decision of *Blundell vs R* (1905). In situations where strips of land acquired for road widening, a strip valuation as an entity is estimated for award. The valuers responded were confident that the market value of a strip is much more less than market value of a similar land but buildable. On the other hand, owner of such strip of land will never be a “willing seller” to satisfy the requirement laid down in Section 45 of the Act.

This ‘entity principle’ has been discussed in *Vajira road case* (M.C. Colombo vs *Lechimi Chettiar*, 1942) and affirmed that, under the Act, a strip of land should be valued as entity. Most of the real estate professionals were of the view that this is a great injustice to the owner whose land was acquired. On the other hand this restricts the development on balance land.

Injurious Affection and Separate entity and Betterment Injurious affection

On the question which referred to injurious affection (IA) and betterment, which were restricted to a maximum of twenty percent of the valuation, sixty percent of valuers interviewed were of the view that, in most of the instances they were convinced with the fact that twenty percent IA is insufficient to cover the actual injury to the balance land. The questionnaire survey revealed that 94% of professionals agreed that current Injurious Affection is unreasonable.

A typical calculation shows that the effects of IA to the owner of acquired land. (Annexure 1)

Value of entire land	= Rs.3,000,000.00
Value of portion retained before acquisition	= Rs.1,800,000.00
Value of portion acquired	= Rs.1,200,000.00
Value of portion retained after acquisition	= Rs.1,080,000.00
Actual loss to the client (1,800,000 – 1,080,000)	= Rs. 720,000.00
Calculation of Injurious Affection under LA act	= Rs. 240,000.00
Loss to the client (720,000 – 240,000)	= Rs. 480,000.00

However, the valuation according to the Act, value of strip acquired as a small extent and the cost of acquired portion of a building which is much lower than the actual market value of acquired property. However, twenty percent of injurious affection calculated on the value of land acquired is much lower than the actual injury because the value of acquired land was restricted by the separate entity principle of the Act. The injury to the balance land has no connection with the 20 % of the value of land acquired.

Separate entity

When a 2P land is put to market as a strip with a smaller piece of building the demand as a separate entity is very low. Following calculation shows that effects of separate entity principle. 2 P land out of 11 P is acquired under the Act. Market value in the vicinity is Rs. 100,000.00 PP whereas the strip may fetch a rate of Rs. 10, 000.00PP as a separate entity. Therefore, the loss to the owner of land expropriated is Rs.90000.00PP. Accordingly, for 2P has lost Rs.180, 000.00

Betterment (For calculations vide annexure 2)

The betterment is an increase of value of property acquired under the Act. This may happen to the subject land as well as the lands close to the land acquired for a development purpose. This is identified as a loss to the client and an unjust benefit to the other land owners close to the land acquired (Hettiarachchi, 2016). This has been illustrated in the Annexure 02. Ninety four percent of professionals agreed that the unjust benefit to the other land owners in the vicinity as betterment is unreasonable. On the other hand questionnaire survey revealed that 90 percent of

professionals accepted that the levy of 20 percent betterment on the claimant is unreasonable.

Conclusions

The compensation under the Act does not comply with legal principle of compensation. The computation of injurious affection is not realistic since 20 percent limit of value of acquired land does not equal to the actual loss. Separate entity principle does not reflect the actual loss to the claimant since it is always much lower value in comparison to the balance land due to poor demand. The charge of betterment adversely affects the owner while other land owners in the vicinity are unjustly enriched at the expense of the state who acquired the land for development purpose. The state is unjustly benefited by the acquisitions under the Act. The current methods of compensation do not comply with the legal definition of compensation and Equity principles.

Recommendations

Separate entity principle should be removed from the Act by an amendment to pave way for the claimant to get the actual loss to him as a result of acquisition. The compensation should be in accordance with equity principle. Betterment charge on the acquired land should be removed from the Act and the unjust enrichment by the adjoining land owners from betterment should be collected by the state by levy of taxes. The unjust betterment by the state should be minimized. The compensation should be based on actual loss to claimant. The loss and betterment should be assessed by a team of competent professionals in the fields of real estate, law and construction management.

Annexure 1

Extent of land	- 8 P
Extent acquired	- 3 P
Free market rent	- Rs. 10 per sq ft pm
Total floor area	- 1200 Sq ft
Acquired area	- 200 Sqft
Land value	- Rs. 100,000.00 PP

(i) Value of acquired portion		
200 sq.ft x 10 x 12 (net)	-Rs.	24,000.00
YP @ 4%		<u>25</u>
Value	-	<u>Rs. 600,000.00</u>
(ii) Value of portion retained		
1000 sq ft x 10 x 12 (net)	-Rs.	120,000.00
YP @ 4%		<u>25</u>
Value	-	<u>Rs. 3,000,000.00</u>
(iii) Value of portion retained after acquisition		
Original rent decreased due to loss of originality of the building resulting lower demand.		
Rent – say Rs 6.00 per sq ft pm		
1000 sq ft x 6 x 12 (net)	Rs.	7 2000.00
YP @ 4%		<u>25</u>
Value		<u>Rs.1, 800, 000.00</u>
Loss to remaining portion		
Above (ii) - (iii)	-	Rs.1,200,000.00
(iv) Calculation of IA as per Act		
(a) Investment Method		
600,000 x 20/100 (20%)	-	<u>Rs. 120,000.00</u>
(b) Contractor's Method		
3P @ Rs. 30,000.00 p.p.	-	Rs. 90,000.00
200 sq ft @ Rs. 2500.00 per sq ft		<u>Rs. 500,000.00</u>
Total	-	<u>Rs. 590,000.00</u>
590,000 x 20/100 (20%)	-	<u>Rs. 118,000.00</u>
<u>Comparison</u>		
Real IA (Damage to balance land) -	Rs.1, 200, 000.00	
IA calculated under Act -	Rs.120,000.00	
Loss to owner -	<u>Rs.1080, 000.00</u>	

Annexure 2

A land in extent 2 Roods was acquired by the state for a development activity, which resulted in increase in land values at a faster rate. Around boundary of the acquired land, price went up by 20 percent. Prior to acquisition rate per perch fetched Rs. 100,000.00 and in subsequent to acquisition, rate rested at Rs. 120,000.00 per perch in the market.

Calculation of market value and betterment under LA Act

80 P @ Rs. 100, 000.00 P.P. - Rs. 8,000,000.00

Land adjoining boundary of acquired land

Accordingly each adjoining owner gets betterment of Rs. 20,000.00 PP

i e for 80 P @ Rs. 120,000.00 PP Rs. 9,600,000.00

From owner's point of view

Market value Rs. 100,000.00 x 80 Rs.8, 000,000.00

(Benefit of increase not given to owner by the Act)

Less 20 % for betterment Rs 1,600,000.00

Owner's share Rs. 6,400,000.00

Loss to claimant 9, 600,000 – 6,400,000
Rs.3, 200,000.00

From adjoining owners' point of view

Enhanced value (80 x 1,200,000) Rs. 9,600,000.00

Value existed (Rs. 100000 x 80 P)

Value of land acquired Rs. 8, 000,000.00

Enrichment by adjoining owners Rs .1, 600,000.00

Under LA Act of 1950 the state does not collect the betterment from the adjoining owners and therefore, they are unjustly enriched at the expense of the state and those who lost lands. When adjoining land owners are gaining Rs.1, 600,000.00 the owner of acquired land suffered a loss of Rs. 3,200,000.00. This is undoubtedly contrary to the principles stemming from the law of Natural Justice.

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Exploring Factors Affecting the Competitiveness of Kandy City as a Heritage Tourism Destination.

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Abstract

Sacred city of Kandy is well known in all over the world because of its heritage value. Therefore, it has become a renowned tourism destination point in Sri Lanka, but still there aren't any sustainable image to position it as a heritage tourism destination. Hence it is necessary to construct a sustainable heritage destination marketing model which will enable to enhance and sustain destination competitiveness in Sacred City of Kandy. In order to create a successful destination marketing model, study focused to determine key factors of distinctive destination points and it attempted to fill the paucity of identifying key factors to determine Kandy as a distinctive tourism destination point. From the purpose of fulfill above mentioned research gap, identified research questions were, what are the key factors determining competitiveness of Sacred City of Kandy as a heritage tourism destination? what is the significance of each factor for competitiveness of Sacred City of Kandy as a heritage tourism destination point? what is the relationship between the factors and the competitiveness of Sacred City of Kandy as a heritage tourism destination? According to research questions, established objective of the research was to identify the factors affecting to the Sacred City of Kandy as a competitive heritage tourism destination. A comprehensive literature survey carried out with the use of books, journals and articles in the aim of finding existing knowledge on various factors which are affecting to the competitiveness of a tourism destination. Then primary data of the study was collected through a questionnaire survey. Population of the study were the tourists in all over the country. The sample of the study was 108 tourists (respondents), who visits to the sacred city of Kandy as heritage

tourism purposely. Sampling method was judgmental sampling. Data analysis was done using Statistical Package for Social Science (SPSS) software. According to the result of data analysis, it concluded a tourist who arrives to city they highly consider on destination management factor. In additionally, core resources and attractions on city and the level of safety and security of the destination also increase the competitiveness of the city, because of that destination gets the competitive advantage as a heritage tourism destination among other cities in the country.

Keywords: Heritage Tourism, Destination Competitiveness, Sacred City Of Kandy, Model of Destination Competitiveness

Introduction

Heritage sites are attractive destinations for visitors in almost every country for that reason the importance of heritage tourism is increasing day by day Hasan and Jobaid (2014). Destination marketing refers to a strategic approach of place development, considered in the framework of tourism. In this context, economic and cultural interests of local communities, local businesses and tourists are considered (Zbucheá, 2014). Sri Lanka's tourism has boomed to a new milestone of 1,527,153 arrivals in 2014, transcending all time high hits in the history which is an increase of 19.8% over last year's 1,274,593 arrivals (www.sltda.lk accessed on 19.03.2016). In 2013 number of tourists arrived for country as per the Religious & Cultural purpose was 4.8 % but in 2014 it decreased to 0.01 % and 2015 it was 0.1% (Sri Lanka Tourism Development Authority Statistical Report, 2015). When it compares to number of foreign visitors visiting the museums, total number of foreign visitors arrived to museums were 50,184 among them only 3,252 were visited to Kandy National Museum (Sri Lanka Tourism Development Authority Statistical Report, 2013). These Statistical data prove weak competitiveness of Sacred City of Kandy as a heritage tourism destination and as well as the country. In recent years' tourism has become a highly competitive market throughout the world. For this reason, it is vital that destinations are able to measure their competitiveness, in order to identify their strengths and weaknesses to develop their future strategies.

Destination competitiveness, is the ability of a destination to increase tourism expenditure to increasingly attract visitors while providing them

with satisfying, memorable experiences and to do so in a profitable way, while enhancing the well-being of the destination residents and preserving the natural capital of the destination for future generations (Ritchie and Crouch, 2003, as cited in Azizet al,2014).

The UNESCO declared Kandy as a world heritage site in 1988, being one of the living ancient capitals of the world today and named it as “Sacred City of Kandy”. Having a unique identification as “Sacred City of Kandy” it has highly potential to be a well recognize heritage tourism destination within the Sri Lanka as well as the world. Kandy city is the second largest city in the country after Colombo and it was the last capital of the ancient king’s era of Sri Lanka.

Place marketing is not only limited to increasing the tourist trade, but also plays an important role in regional and urban development (Maheshwari et al, 2001). Therefore, active participation of both private and public sectors are necessary to implement sustainable heritage destination marketing framework because it plays an important role in sustainable urban development. Sustainable development implies development to meet the needs of current generations without negative impact on meeting the needs of future generations (Rehan, 2013). Since Kandy is a world renowned heritage site our responsibility is to conserve and protect this site by implementing sustainable tourism destination marketing strategies. This study was based for the identification of factors affecting the competitiveness of Kandy City as a heritage tourism destination.

Literature Review

Heritage Tourism

There is no singular, specific definition for heritage tourism. “Heritage tourism is largely concerned with the cultural legacy of the past, or the hard cultural resources usually contained in old buildings, museums, monuments and landscapes or represented and interpreted in specialized heritage centers” (Richards, 2000). Therefore, heritage tourism is positioned on what we have inherited which mean anything from historical buildings to art works, to beautiful scenery, lifestyles ways of living together values systems traditions and beliefs. Heritage is a broad concept it includes natural as well as cultural environment. “It incorporates landscapes, historic places, sites and built environments, as biodiversity,

collections, past and continuing cultural practices, knowledge and living experiences. It records and expresses the long processes of historic development, forming the essence of diverse national, regional, indigenous and local identities and is an integral part of modern life” (The Charter Etos, 1999, as cited in Gunlu, n.d.). This broad view of heritage is reflected in the definition adopted by UNESCO in the World Heritage Convention. The Convention divides heritage into two categories namely cultural heritage and natural heritage.

“Cultural heritage” defined as a monument, group of buildings or site of historical, aesthetic, archaeological, scientific, ethnological or anthropological value and “natural heritage”, designating outstanding physical, biological and geological features; habitats of threatened plants or animal species and areas of value on scientific or aesthetic grounds or from the point of view of conservation (World Heritage Convention,1972). This combination of cultural and natural heritage reflects in many national inventories. Case study area of this research is also rich in above mentioned both natural and cultural heritage categories.

Tourism Destination Competitiveness

Various factors are affects to being competitive for a destination. (Azizet *et al* ,2014), suggests that destinations must put the environment first, make tourism a leader sector, strengthen the distribution channels in the market place and build a dynamic private sector. The conclusion is that what makes a tourism destination to truly competitive is, “its ability to increase tourism expenditure, to increasingly attract visitors while providing them with satisfying, memorable experiences, and to do so in a profitable way, while enhancing the well-being of destination residents and preserving the natural capital of the destination for future generations” (Ritchie and Crouch, 2003, as cited in Azizet al, 2014).

Model of Destination Competitiveness

Researchers have agreed that Ritchie and Crouch’s model of destination competitiveness (2003) is now arguably the most comprehensive and most rigorous of all models of this type currently available. The most detailed work undertaken by tourism researchers on overall destination tourism competitiveness is that of Crouch and Ritchie (1995, 1999) and Ritchie and Crouch (2000, 2003), who significances that, in absolute

terms, the most competitive destination is one which brings about the greatest success which mean, the greatest well-being for its residents on a sustainable basis. Crouch and Ritchie began to study the nature and structure of destination competitiveness in 1992 (Crouch & Ritchie 1994, 1995, 1999; Ritchie & Crouch 1993, 2000a, 2000b). In a study by (Chambers and Lagiewski, 2010) their aim has been to develop a conceptual model that is based on the theories of comparative advantage and competitive advantage. It proved that their studies have also discussed the importance of determinants or sources of competitiveness for the tourism sector. Their model incorporates the main elements of macro (national) and micro (firm) competitiveness, as well as comparative and competitive advantages of tourism destination. Below it shows the Ritchie and Crouch’s general Conceptual Model of Destination Competitiveness.

Figure 1. Ritchie and Crouch’s Conceptual Model of Destination Competitiveness



Source: Ritchie & Crouch, 2003

(Ritchie and Crouch, 2010) “This model contains seven (7) components which we have found to play a major role, from a policy perspective, in determining the competitiveness/sustainability of a tourism destination”.

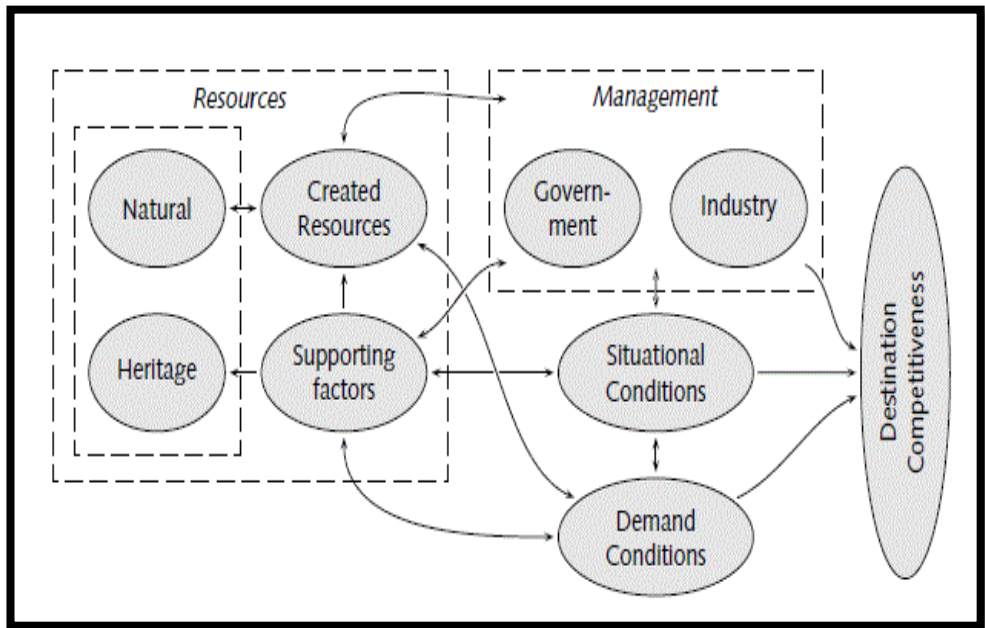
Those seven components could be identifying as follows, “macro environment”, “micro environment”, “core resources and attractors”, “supporting factors and resources”, “destination management”, “destination policy planning and development” and “qualifying determinants”.

Integrated Destination Competiveness Model Designed by scholars.

Omerzel’s Conceptual Model of Destination Competitiveness.

This model was developed in a cooperative effort by researchers in Korea and Australia. Determinants are classified under six main headings. Those are “Created Resources”, “Inherited Resources”, “Supporting Factors”, “Destination Management”, “Demand Conditions” and “Situational Conditions”.

Figure 2- Omerzel's Conceptual Model of Destination Competitiveness

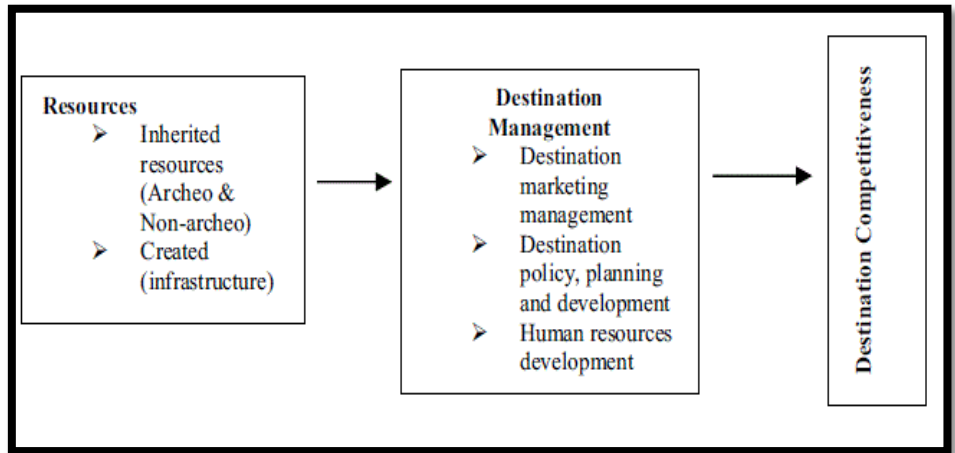


Source: Omerzel, 2006

Azizet al’s Conceptual Model of Destination Competitiveness.

In this model basically they were considering about two categories’ namely “Resources” and “Destination management”.

Figure 3-Azizet al's Conceptual Model of Destination Competitiveness

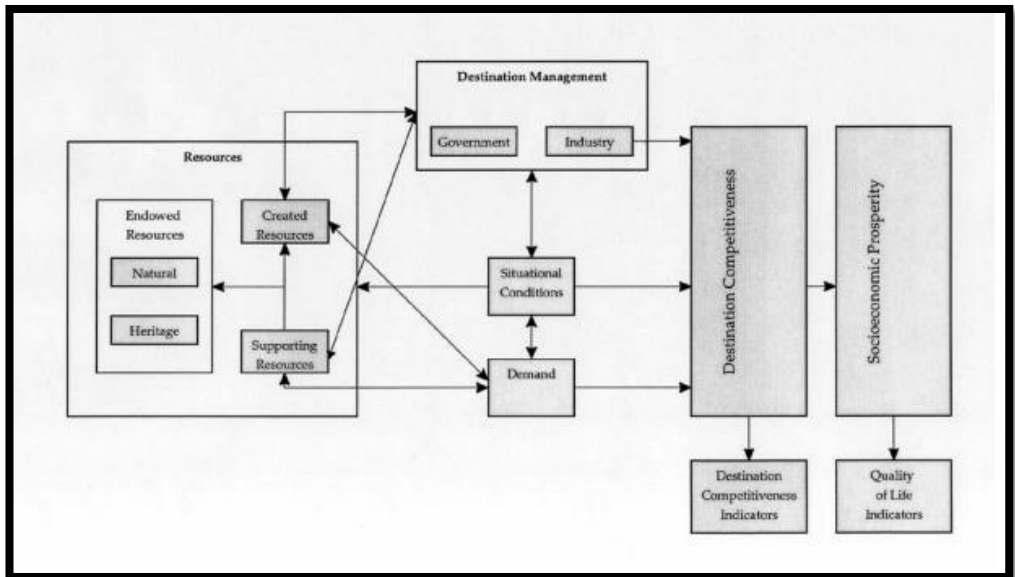


Source: Azizet al, 2014

Dwyer and Kim's Conceptual Model of Destination Competitiveness.

According to them, Resources category is divided into two types, endowed (inherited) and Created. (Dwyer and Kim, 2003), Endowed Resources, in turn can be classified as Natural (mountains, lakes, beaches, rivers, climate etc.) and Heritage or Cultural (cuisine, handicrafts, language, customs, belief systems etc.). (Dwyer and Kim, 2003), Created Resources include tourism infrastructure, special events and the range of available activities, entertainment and shopping. In the model presented here Supporting Resources (or enabling factors) include general infrastructure, quality of service and accessibility of destination, hospitality and market ties, (Dwyer and Kim, 2003).

Figure 4- Dwyer and Kim's Conceptual Model of Destination Competitiveness.



Source: Dwyer and Kim, 2003

(Dwyer and Kim, 2003), Situational conditions related with economic, social, cultural, demographic, environmental, political, legal, governmental, regulatory, technological, and competitive trends and events that impact on the way firms and other organizations in the destination do business. (Dwyer and Kim, 2003), In the model presented here, a distinction is made between destination management activities undertaken by the public sector and destination management undertaken by the private sector. (Dwyer and Kim, 2003), included among the activities of the public sector elements are, the development of national tourism strategies, national and regional manpower programmes, environmental protection legislation etc. (Dwyer and Kim, 2003), This model contains a separate box for Demand Conditions.

This category comprises three main elements of tourism demand awareness, perception and preferences. (Dwyer and Kim, 2003), The single direction arrows from Supporting Resources to Endowed Resources and Created Resources indicates that the mere existence of such resources is insufficient to generate visitation to a destination in the absence of tourism infrastructure (accommodation, transportation, restaurants),

organized activities, entertainment, shopping and so, on which enable or facilitate visitation. (Dwyer and Kim, 2003), such attributes represent value added by organizations in the destination to the overall tourism product. There are two-directional arrows linking both Created Resources and Supporting Resources to Demand and to Destination Management. (Dwyer and Kim, 2003), these arrows indicate a two-way causal link, specific features of Created Resources and Supporting Resources influence Demand, whilst the nature of Demand Conditions, specifically tourist preferences and motives for travel, influence the types of products and services developed within a destination.(Dwyer and Kim, 2003), In similar vein, specific features of Created Resources and Supporting Resources influence Destination Management to achieve and maintain sustainability whilst the activities of public- and private-sector tourism organizations influence types of products and services developed. (Dwyer and Kim, 2003), The box representing Destination Competitiveness is linked backwards to the various determinants of competitiveness and forwards to one representing Socio economic Prosperity, indicating that destination competitiveness is itself an intermediate goal towards a more fundamental aim of socioeconomic well-being for residents.

Summary of the Factors Identified by the Literature Survey

Table 1-Identified factors through the literature survey

Main factor	Sub factor	Literature source
01. Core resources and attractors	Natural, climate, culture and history	(Khin et al,2014) (Dwyer & Kim, 2003), (Omerzel, 2006)
	Comfortable climate for tourism.	
	Natural landscape.	
	Wonderful scenery.	
	Cultural and historical attractions.	
	Artistic and architectural design.	
	Traditional arts and crafts.	
	Exotic and unique local custom.	
	Unspoiled nature.	
	National parks/Nature reserves.	
	Historic/Heritage sites and museums.	
	Artistic/Architectural features.	
	Traditional arts.	
	Variety of cuisine.	
	Cultural precincts and (folk) villages.	
	Tourism Superstructure	
	Variety of accommodation.	
	Quality services in accommodation.	
	Variety of Food & Beverage services.	
Quality services in Food & Beverage services.		
Variety of evening entertainments.		
Tourism activities.		

	Variety of shopping items.	
	Presence of service providers.	
	Created Resources	
	special events	
	the range of available activities	
	entertainment	
02. Supporting Factors	General infrastructure	(Dwyer & Kim, 2003) (Omerzel, 2006)
	Adequacy of infrastructure to meet visitor needs.	
	Health/Medical facilities to serve tourists.	
	Financial institution and currency exchange facilities.	
	Telecommunication system for tourists.	
	Local transport systems.	
	Waste disposal.	
	Electricity supply.	
	Accessibility of destination	
	Distance/Flying time to destination from key origins.	
	Direct/Indirect flights to destination.	
	Ease/Cost of obtaining entry visa.	
	Ease of combining travel to destination with travel to other destinations.	
	Frequency/Capacity of access transport to destination.	
	Quality of service	
	Tourism/Hospitality firms which have well defined performance standards in service delivery.	
Visitor satisfaction with quality of service.		

	Hospitality	
	Friendliness of residents towards tourists.	
	Existence of resident hospitality development programmes.	
	Resident support for tourism industry.	
	Ease of communication between tourists and residents.	
03.Destination Management	Cleanliness in destination.	(Khin et al,2014), (Omerzel, 2006)
	Safety and security.	
	Public bathrooms and restrooms.	
	Multilingual signage.	
	Easy access to get destination map/ leaflets.	
	Favorable policies to tourists.	
	Preservation cultural heritage.	
	Conservation of local tradition.	
	Environmental conservation.	
	Efficiencies of tourism and hospitality staff.	
04. Demand Factor	Destination perception	(Dwyer & Kim, 2003),(Omerzel,2006)
	Destination preferences	
	Destination awareness	
05.Qualifying and amplifying determinants	Safety and security	(Dwyer & Kim, 2003)
	Level of visitor safety in destination.	
	Incidence of crimes against tourists in destination.	

Source: Author, 2016

Findings

Demographic Findings

It is identified that most of arrivers to the city were male and their age was in between 25- 34 ages, and most of the respondents were unmarried and majority of the sample were degree holders and also they were professionals. When it discussed about their hobby most of them are interest in cultural and environmental related hobbies and when it get the sample 105 of respondents were 1st time visitors to the city and only 3 of them were had their 2nd visit to the city the main reason as this the author found out was the survey was conduct during the off season of the city that means questionnaire was distributed on September and the season of tourist arrives to the city is “Esala perahara” and it was held on during August.

Further author found that majority of the respondents liked to visit around the city during the morning and their tour plan of staying in the city was less than two days. And most of the tourists were self-planners of their tour and most of they knew about sacred city through the internet. Final demographic finding from this study was most of the respondent were from United Kingdom.

Inferential Analysis

Table.2- Conclusion table of reliability test

Variable	Cronbach's Alpha value	Conclusion
Competitiveness	0.732	Data is valid for further analysis
Core resources and attractions	0.874	Data is valid for further analysis
Destination management	0.806	Data is valid for further analysis
Qualifying and amplifying	0.778	Data is valid for further analysis
Supporting	0.789	Data is valid for further analysis
Demand	0.814	Data is valid for further analysis

Source by- Author: Survey data 2016

Table.3- Conclusion table of normality test

Variable	Alpha value	P value	Decision	Conclusion
Competitiveness	0.05	0.000	Reject H_0	Competitiveness is not normally distributed
Core resources and attractions	0.05	0.000	Reject H_0	Core resources and attractions is not normally distributed
Destination management	0.05	0.002	Reject H_0	Destination management factor is not normally distributed
Qualifying and amplifying	0.05	0.000	Reject H_0	Qualifying and amplifying factor is not normally distributed
Supporting	0.05	0.000	Reject H_0	Supporting factor is not normally distributed
Demand	0.05	0.001	Reject H_0	Demand factor is not normally distributed

Source by- Author: Survey data 2016

As above table, dependent variable competitiveness and all other five independent variables are also not normally distributed. Therefore to the co-relation analysis Spearman's correlation will be used

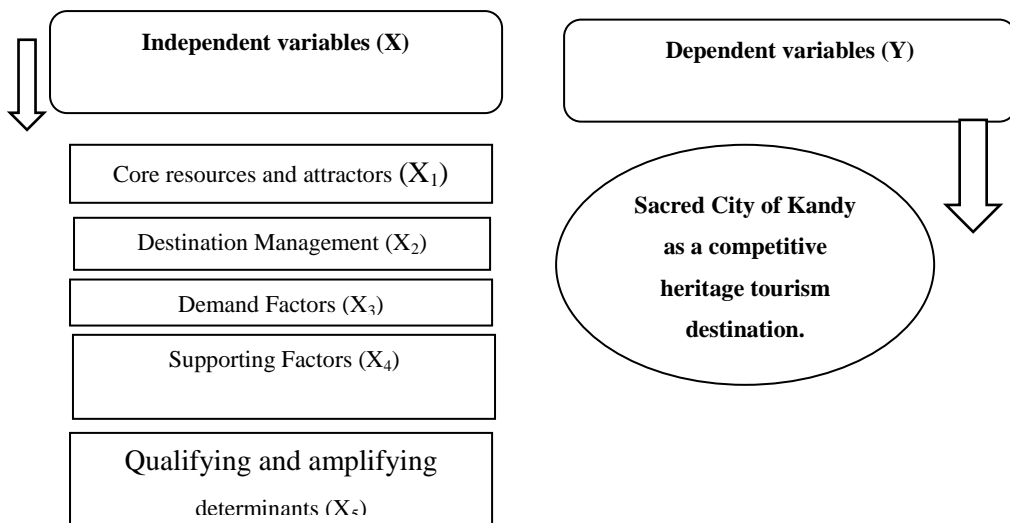
Table 4- Correlation analysis

Variables	P value	Alpha value	Decision	Conclusion	Correlation coefficient
Competitiveness and core resources and attraction factor	0.000	0.05	Reject H_0	There is a relationship between competitiveness and core resources and attraction factor	0.454
Competitiveness and destination management factor	0.000	0.05	Reject H_0	There is a relationship between competitiveness and destination management	0.480
Competitiveness and qualifying and amplifying factor	0.000	0.05	Reject H_0	There is a relationship between competitiveness and qualifying and amplifying	0.356
Competitiveness and supporting factor	0.001	0.05	Reject H_0	There is a relationship between competitiveness and supporting factor	0.312
Competitiveness and demand factor	0.007	0.05	Reject H_0	There is a relationship between competitiveness and demand factor	0.256

Source by- Author: Survey data 2016

All the factors are having a positive relationship with the competitiveness of the city as a tourism destination. It can also interpret that when a tourist selects this city as their visiting place they consider about city's core resources and attraction, destination management, qualifying and amplifying, supporting and demand factor. Also according to the results of correlation coefficient all the factors had a weak positive relationship with the destination competitiveness because all the correlation coefficient value of each factor is in between 0 to +0.5.

Figure 1-Relationship matrix of the study



Source: Author, 2016

Model Summary

$$Y = -0.162 + 0.272X_1 + 0.679X_2 + 0.019X_3 - 0.022X_4 + 0.127X_5$$

Conclusion

This research was given a guideline for destination marketers, destination policy makers, destination planners and real estate developers in tourism field to identify the factors affecting on the competitiveness of a tourism destination especially in perception on international tourist's point of view. In order to prove the relationship between factors and competitiveness of the city as a heritage tourism destination a correlation analysis was done and it confirmed that all the factors (Core resources and attractions, Destination management, Qualifying and amplifying Supporting and Demand) had a positive correlation with the competitiveness of the city as a heritage tourism destination.

The model of this relationship was extracted by a multiple regression analysis and it showed that strongest contribution was given by destination management factor, it has a 0.679 of beta value. Next to it 0.272 high beta value is get from the core resources and attraction. In contrast qualifying and amplifying (Safety and security) and demand factors have provided a small contribution to explain the dependent variable which had a Beta value of 0.019 and 0.127 following. Supporting factor has provided a negative contribution to explain the dependent variable with a minus Beta value of 0.022.

Finally, it concluded that a tourist who arrives to city they highly consider on destination management factor and because of that destination gets the competitive advantages as a heritage tourism destination and next factor was core resources and attractions on city and the level of safety and security of the destination also increase the competitiveness of the city among other cities in the country.

Limitation of the Research

01 Area

- This study cannot be done to the whole country due to time and cost limitations, where only one area will be selected as the study area.

02 Reference group

- This study will limit to tourists who visit the sacred city of Kandy as heritage tourism only.
- Data collected from the tourists whose age is above 25 years because as authors' point of view the questionnaire should be fill from a person who has a knowledge regarding with heritage tourism.

Contribution of the Research

- Study contributes for government sector institutions such as Sri Lanka Tourism Authority and as well as Sri Lanka Tourism Promotion Bureau for making their policies regarding with Sacred city of Kandy.
- Urban and regional planning authority of Sri Lanka as well as central province provincial authority for making their structured plans in a sustainable way.
- All the private sector stakeholders who are engaged with tourism industry such as hotel developers and small and medium entrepreneurs.

- Finally, this study will be a literature to future researchers who are willing to do their research on topics related with this study and it will be a reference to all the parties who have an interest in this filed.

Recommendation

As we know, a tourist is an ambassador from international level to local level and the image which he or she will get during their touring period is the one which they recommended for others. Therefore, it is a vital task for local community and their responsible parties to create a positive image in their minds. For this purpose, all the responsible parties both private and public sector should pay attention to the factors discussed in this research. All other aspects and factors which was not covered by this research due to its limitations.

Direction for Future Research

This research is a study on a particular area and also for a sample of specific respondents but there is a gap to fulfill, this study should not be restricted to Kandy itself, but it should be carried our throughout Sri Lanka and to be a competitive tourism destination in international market, not only for heritage tourism but for all other purposes of tourism such as education, adventures, business etc.

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Compensation Valuation for Disasters in Sri Lanka with Reference to Explosion at Salawa Armory in Avissawella

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Abstract

Disasters can be classified under three main groups such as natural, man-made, and technological. The classification of disasters as per the literature review is related to meteorological, geotectonic, and biological events like floods, droughts, hurricanes, earthquakes, volcanic eruptions, pest attacks, mudslides, and landslides. The prompt payment of compensation calculation becomes a must in any disaster that destroys or harmfully affects to the man-made assets, human and social capital. Sri Lanka had past experiences on different kinds of disasters and massive time slots including human resources were wasted in calculating compensation due to absence of a proper systematic pathway. This paper mainly focuses to identify a comprehensive methodology for disaster damage and loss assessment for compensation in Sri Lanka. A random sample of 45 residents those who faced to the explosion living in the immediate vicinity of Salawa Armory and 15 professional valuation officers from Government Valuation Department of Sri Lanka were interviewed using a structured questionnaire, in addition observations were carried out at the inspection of damaged properties. The study identified that economic, environmental and social losses should be added in calculating the compensation other than the value for physical damages. While suggesting a method to calculate the loss of income as an indicator a comprehensive model including pathway guidelines for disaster valuation was developed. It is recommended that a base line information system should be maintained at GN level immediately covering the whole country.

Keywords: Disaster, Damages, Losses, Valuation, Compensation

Introduction

Disaster valuation is a critical activity and is highly time consuming. Moreover, resources have to be allocated in assessing the damages. Here, the purpose of the valuation is to get back the people to the pre-disaster position. The only way which helps to the process is the compensation.

However, disasters can be assessed in many ways considering number of deaths, number of buildings collapsed, kilometers of roads destroyed, loss of revenue due to the disruption of economic activities, etc. Ideally, all these elements should be incorporated in a total cost assessment, but practically only direct and tangible costs are considered to estimate the economic losses. When it comes to Sri Lankan context only physical factors are considered for the calculation of compensation. In order to avoid the agitation of people affected, a stepwise reasonable pathway with more accurate information is required.

The objectives of the study are two folds as to identify some specific factors affecting the payable value for the assessment of compensation and to develop a comprehensive pathway to assess the compensation value in Sri Lanka.

Literature Review

The term "disaster" has many different views and are generally considered violent or unexpected occurrences, often accompanied by loss of life, material damages, and difficulties for the functioning of society and the economy (Dosi, 2001). In the disaster valuation following physical factors have been considered by different authors such as structure, size, structural improvements, materials used, age, condition of structure, the nature of the building, accommodation, accessibility of the property, location of the property, nature of the construction, floor area of the building, type of the building, type of floor, (Owusu-Ansah, 2012; Stefano, 2013; Wasantha, Wickramaarachchi, & Weerakon, 2006). In addition, Economic factors such as Business losses and Production losses in disaster valuation were also considered (Dosi, 2001). Moreover, (Owusu-Ansah, 2012; Stefano, 2013) discuss neighborhood qualities, accessibility, mental illness, loss of life and loss of job as social factors that should be considered in disaster valuation. As discussed by Radoslaw, 2012; Stefano, 2013; Guynhanh, 2015; Hanemann, 2003), the environmental factors which should be considered in disaster valuation are clean air, forest cover, surface water, land escape, Scenic beauty and soil fertility.

The past literature, shows that replacement cost method is mostly used for disaster valuation and some factors are added to the replacement cost value in order to find the payable value for compensation. The replacement method in literal sense is as follows (Premathilaka, 2016; Wyatt, 2013).

Value of Land	XXXX
(+) Current cost of existing improvement	
Replacement Cost of improvement	XXXX
(-) Depreciation allowances due to age and/ or obsolescence	<u>(XXX)</u>
	<u>XXXX</u>
Value of the property	<u>XXXXX</u>

Methodology

Both primary and secondary data were used in this study. Primary data were collected using a structured questionnaire from two random samples, comprised of 45 respondents from the residents of the affected area, covering all types of characteristics of the properties and 15 valuation officers of Government Valuation Department. In addition to the questionnaire, the observations carried out to verify the details of physical aspects. Maps and reports from census data, satellite imaginaries were used as secondary data. The gathered data were tabulated to excel database and analyzed using Statistical Package for the Social Science (SPSS). A comprehensive model based on replacement cost method was formulated to calculate the fair and reasonable quantum of compensation.

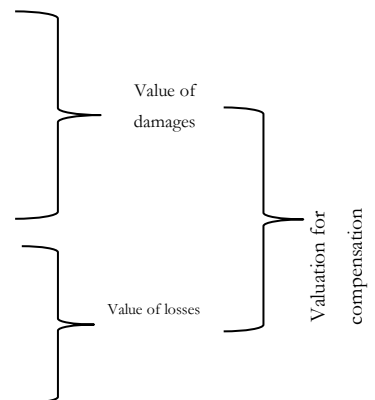
Model Analysis

The basic model for this calculation is as follows.

$$V = Va - Vb + Vg + Vl + Ve + Vs$$

Where,

- V** = estimated amount to be paid as compensation.
- Va** = the value of properties with their initial condition.
- Vb** = the value of discounted effect of the disaster (%).
- Vg** = the value of damaged goods
- Vl** = the Value of economic losses.
- Ve** = the value for the environmental quality reduction.
- Vs** = the value for the social well-being



The above model for the calculation of compensation is predominantly based on a combination of cost approach and comparison method. Building value was

calculated on the basis of the replacement cost of the building. In addition to that, payable value for the compensation was calculated by adjusting the percentage of the damages occurred by the disaster and adding values of damaged goods and additional payments for economic losses and social and environmental impacts. The values were adjusted in accordance with the collected information. Rate per Square foot value is taken as per the rates adapted by the Government Valuation Department, Sri Lanka. The social and environment loss should be calculated by using willing to pay and willing to accept method with well-structured questionnaire.

Results & Discussions

The factors considered are, the extent of the land, accessibility of the property, location of the property, distance from the city center, legal interest, condition of the building, floor area of the building, accommodation, age of the building, construction materials, type of the floor, type of wall, type of ceiling, type of roof, design of the building, type of the building, renovations, conveniences, loss of goods, type of residence, monthly income, displaced period etc.

As this is disaster valuation the effective floor area is the total floor area of the building as no deductions made for building lines, street line etc. Moreover, deductions are not made for the age of the building as people could have recovered to their previous position and compensation calculated on replacement cost value.

The most difficult task is to calculate value of damaged goods due to inaccuracy of identification of the components as these evidences can be extracted only from householders. In this study also, value of damaged goods was collected from requested values by householders. However, the most accurate method for assessing the value of damaged goods is the method of item by item calculation. Total value of physical damages was calculated by merging the values loss of land, damaged building and loss of goods.

As a new indicator, the value of loss of income was based on the average monthly income of the affected families to generalize everyone in a disaster loss. In this regard, the following values for monthly income were calculated using the collected. Median (Rs.60,000/=), Mode (Rs.30,000/=), Mean (Rs.59,200/=), Minimum (Rs.15,000/=) and Maximum (Rs.150,000/=). Above indicators show that there is a big difference of income distribution in this area. According to the

sample analysis, average monthly income of each family should be separately identified and added to the compensation value as loss of income.

In that way, following example describe the application of this model for the disaster valuation process for the compensation purposes. A property near to the Salawa army camp is used to this calculation and that property fully affected from the explosion.

Example: At the free disaster situation this property comprised with a 19-perch land and permanently fully completed single storied building used for the residential purpose. It's completed with Asbestos sheet roofing and exposed rafter ceiling, partly brick work and partly cement block walls plastered and colour washed, Floor is cement rendered, timber framed glazed windows and timber doors. This building had a total floor area of 3000 square foot. Building has been fair condition and age of the building is 15 years. According to the recent land sales in this proximity vary from Rs. 100,000/= to Rs. 350,000/= and according to the adapted rate per square foot of valuation department for this type of building is Rs. 2,500. After the disaster value of the damaged goods are estimated as 2,000,000/=. Average monthly income is Rs. 70,000/= and it is assumed that value for the social and environment losses is Rs. 50,000/=.

Valuation for the Compensation (Replacement cost method)

Step 01 – Value of Land

Total extent of land	00 A 00 R
19.00 P	
Less – For reservations	00 A 00 R 00
P	
Extent to be valued	00 A 00 R
19.00 P	
Rate per perch (Rs.)	<u>200,000</u>
Value of land (Rs.)	<u>3,800,000</u>

Note: There is no land losses in Salawa armory explosion, in this context compensation is not paid for the land.

Step 02 – Value of Building

Total floor area in Sq. Ft.	3000 Sq. Ft.
Rate Xadapted (Rs.)	<u>2500</u> per Sq.
Ft.	
Estimated value/Replacement value (Rs.)	<u>7,500,000</u>

Note: This building is fully destroyed. Therefore, total value of the building is allowed for the compensation.

Step 03 – Value of goods

Value of damaged goods (Rs.)	2,000,000
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Step 04 – Value of Physical damages

Value for the loss of land (Rs.)	0
Value for damaged building 100% (Rs.)	7,500,000
Value for the loss of goods (Rs.)	<u>2,000,000</u>
Total value of physical damages (Rs.)	<u>9,500,000</u>

Step 05 – Value of losses

Loss of income for 5 months @ Rs. 70,000 per month	350,000
Value for the social and environment effect (Rs.)	<u>50,000</u>
Total value of the losses (Rs.)	<u>400,000</u>

Note: Income losses are calculated by using average monthly income for the displaced period. The value for social and environment losses should be calculated based on willing to accept and willing to pay method.

Step 06 – Total value for the compensation

Total value of physical damages (Rs.)	9,500,000
Total value of losses (Rs.)	<u>400,000</u>
Total value of compensation (Rs.)	<u>9,900,000</u>

Values adding to the formula,

$$V = V_a - V_b + V_g + V_i + V_e + V_s$$

$$V = (3800,000+7,500,000) - 3,800,000 + 2,000,000 + 350,000+50,000$$

$$V = \underline{\underline{9,900,000}}$$

Pathway Analysis

The process starts with (1.) the request of the government and continues as, (2.) Preparation and planning, (3.) Data collection and verification and validation, (4.) Consolidation & analysis, (5.) formulating valuations, (6.) appeal and (7.) final valuation.

A sample of the formulated time frame based on the above steps is given below. This can be used for any disaster valuation process after making the necessary alterations according to the scale of the disaster.

Activities	Weeks							
	1st	2nd	3rd	4th	5th	6th	7th	8th
1. Emergency State								
2. Analysis on damages & Losses								
Preparation & planning								
Baseline data collection								
Field survey for primary data collection								
Verifications & valuation								
Consolidation & analysis								
3. Computation of valuation								
Prepared draft of Valuation								
Appeal on valuation								
Write final valuation report								

Table 1 Sample time frame for disaster valuation process for compensation

Conclusion

Numerous factors such as physical factors, economic factors, social and environmental factors and legal factors affecting the disaster valuation process for the payment of compensation were identified in this study. However, it was observed that some factors such as business losses, social cultural and environmental losses are not taken into account at present disaster valuation system in Sri Lanka. Moreover, in the meantime it can be seen that those factors are considered in disaster valuations in some of the countries around the world. With referencing to those adopted valuation measures and considering values of those omitted factors, a comprehensive model is formulated and a guidance pathway for the process of disaster valuation is also developed. On other hand, lack of information is identified as another significant issue leading to complexities in the process of compensation valuation for disasters.

Recommendations

It is observed that not only values of physical damages but also values of economic, social and environmental impacts should be considered in disaster valuation. At the same time, a baseline information system should be formulated to be use as a secondary source or an information database and immediate actions should be taken to build the system. Moreover, it can be recommended that a policy should be developed by considering all factors as physical factors, economic factors, social and environmental factors and legal factors identified in this study for the disaster valuation.

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Ethical Principles for Professional Valuers The Sri Lankan Experience

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Abstract

This paper is based on the research on influence of code of Fundamental ethical principles (FEPs) - 2011 published by International Valuation Standards Council (IVSC) and similarly published by Institute of Valuers of Sri Lanka the (IVSL) as Sri Lankan Valuation Standards 2015 (SLVS – 2015) to the existing safeguards framework in secured lending valuations in Sri Lanka. This was achieved through specific objectives as to understanding and adherence of FEPs, and threats those compromising the implementation of FEPs on the way find out country specific threats, and finally significance and sufficiency of such safeguards will be discussed. Through a mixed use of desk literature review, interview, and questionnaire survey with selected Professional Valuers (PVs) and executives of leading banks in government and private sector was used to gain the evidence to achieve the objectives afore mentioned. The research methodology produced both qualitative as well as quantitative data. This paper identified various types of threat in Sri Lankan context rather than in international context. A brief description of existing framework included in the analysis part to match with the requirement in reality. The paper concluded that the understanding of FEPs by Sri Lankan valuation professionals in theory is at moderate level and they follows almost non fundamental and situation approaches in their ethical decisions as a result the absence of mandatory nature code of ethical conduct. It is also identified that the country specific threats such as cultural threats, Time constraint threat, Threats on practicing unfamiliar area and lack of applying scientific approaches, Threat on the absence of market evidence data base etc. Finally recommendations for the enhancement of existing safeguards as well as new proposals are discussed in this paper.

Keywords: Professional Ethics, Ethical Principle, Professional Valuers, Valuation Standard, Secured Lending Valuations

Introduction

The valuation profession in Sri Lankan context has been spread over large number of branches in the economy and study on importance of professional ethical code in each and every sector is impossible by a single research. Hence the focus is limited to study only on the involvement of Professional Valuers (PVs) in secured lending market which is Rs.1,008,030 millions magnitude being 29.40% of the total lending per annum (Central bank:2016) and annual increase to the sector ranging between 15% - 20% (Central bank:2016).

The Secured Lending Market (SLM) in early 2010 was slowly developing nature which was negatively affected by civil war persist during last 3 decades. Since the end of civil war in 2009, the SLM including the financial sector expanded with the flow of investment of foreigners as well as locals in real estate sector. Meanwhile the Government Valuation Department which is the one and only Government organization provides professional training to new entrance to the valuation profession, has been taken a decision to recruit the graduates having at least 50 graduates in a single batch since 2005. New entrance to the profession have been grown since 2004 were 371 members up to now is 636 members (Institute of valuers directory -2015) that is more than 265 members representing 71% growth of the total PV in the island. This means the new comers to mortgage industry will gradually increase.

In the context of Sri Lanka, Members in professional valuation organizations such as Royal Institute of Chartered Surveyors (RICS), Institute of Valuers of Sri Lanka (IVSL) and Institute of Real Estate and Valuation of Sri Lanka are mainly engage in the mortgage valuations. Out of them the members of RICS and IVSL dominate the market with more than 90% of mortgage valuations. Therefore the study will mainly focuses only on those valuation professionals. Recommendations of Mallinson committee which was appointed in 1993 in response to the property crash and differences in valuations was published as manual came in to force on 01st January 1996 (cited CEM 2015: 6). It was made bind all RICS members in UK as well as in international context. RICS Appraisal and Valuation Standards in 2003 which was followed by the earlier manual mainly based on the recommendations of Carlsberg committee which was mainly look at ethics and conflicts following the scandals in accountancy and other professionals including the PVs (cited CEM 2015: 14). Practice statement 01 and 02 in “RICS Valuation – Professional Standards January 2014” reserved for compliance with Standards and practice statement where a written valuation is provided by the members(PS01), and Ethics, Competency, objectivity, disclosures (PS 02)(The Red Book (RICS – 2014)).

International Valuation Standard Council(IVSC) published their Code of Ethical Principles for PVs in December 2011(the code) and objective for introduce that was to build confidence and public trust in the valuation process by creating a framework for the delivery of credible valuation opinions by suitably trained valuation professionals acting in an ethical manner. The IVSC mentioned that, five fundamental ethical principles namely Integrity, objectivity, competence, confidentiality, and professional behavior etc. should adhere by PVs when

providing valuation service. Parallel to the fundamental principles, they have identified principal categories of threats such as Self-interest, Self-review, Client conflict, Advocacy, Familiarity, and Intimidation which may compromise a PV's ability to comply with the said fundamental principles and emphasize the need of safeguards against the threats. It is no doubt that members of the RICS have to be bound by the code while the IVSL has published Sri Lanka Valuation Standards 2015 (SLVS - 2015) with effect from 01st January 2015. In SLVS 24 – Code of Conduct – Guidance note 02 has been reserved for the professional ethics recognized by the RICS. Therefore the IVSC code and that of RICS and IVSL can be considered as almost similar.

There are frameworks of safeguards imposed in Sri Lanka by the statutes, regulations, professional organizations and by the lending institutions against the threats on implementing fundamental ethical principles. Examples for existing safeguards in secured lending industry are central bank's directives, professional experience, Continuous Professional Development (CPD) programs, and internal reviewing system are among the leading safeguards. But the purposes of those safeguards vary based on their intention. For example, the statutory regulations may be imposed for the benefit of entire society while those of valuation professional organizations might be mainly to secure the professionalism and esteem. The financial institutions' safeguards mainly focus on reducing the nonperforming risk. Thus direction of these all individual's intentions have to be fallen within one route and study on how create balance of them is very important.

This is the second year the SLVS-2015 being part of professional practice in Sri Lanka together with amendments recently made. It is suggested that period is sufficient to measure the understanding the fundamental ethical principles by PVs in mortgage valuations. However our objective is to research on what the main factors were positively contributed to ethical behaviors even when concrete base of knowledge on fundamental ethical principles were absent.

Methodology

The initial stage of the research methodology was to identify the theoretical background of the behavioral aspect of PVs, and their impact on variances and inaccuracies of valuations, which in lending market that arise need for the fundamental ethical principle and further discussed of sufficiency of such code itself to overcome those impacts. Theoretical background of all of them discussed in the literature review section in the international context and lack of literature in the particular sector in Sri Lankan context was a main problem. However the

methodology to achieve the established objectives was intends to doing the use of desk research literature for example, the theoretical aspects of fundamental ethical principles, internationally recognized threats on implementing such principles etc. discussed using the code 2011 of IVSC. The questionnaire was used to collect primary data to assess the level of understanding the ethical principles and their adherence when dealing with ethical dilemmas. Further, the influence of the threats on the professional judgment was checked via data gathered from the questionnaire.

The interview process was used to collect data to ascertain the existing safeguards against the threats followed by lending institutions, professional bodies, statutory and individuals with desk research reference of the local statutes relevant to the profession. Finally the questionnaire was used to collect the data for quantitative evaluation of significance and sufficiency of those safeguards in practice and make recommendations for further enhancement of existing framework using qualitative data.

Findings

The understanding and adherence of fundamental ethical principles (FEPs) somewhat influence the explanations made by the author at both interview and questionnaire process. This impliedly meaning of this is the FEPs were new experience to the Sri Lankan valuation professionals in theory even they are included in SLVS - 2015. The results of analysis reveal that the understanding of FEPs is in moderate level. But the level of understanding increased when they are getting senior in the sector. Next adherence of FEP is even in moderate level but close to upper margin that mean adherence is in good but doubt is whether they applied FEPs understanding their meaning in theory or understanding the consequences of good or bad. So in conclusion, out of three approaches suggested by Fletcher (1968) on ethical decisions, Sri Lankan valuation professionals followed almost non-fundamental and situational approaches in their ethical decisions backed by religious spiritual perceptions and in by the government working environment since the absence of juridical background in the past before SLVS - 2015.

All IVSL PVs accepted that common threats were available in SL mortgage industry and additionally they pointed out other country's specific threats also available. However reasons for most of such threats are lack of involvement by professional bodies facilitating PVs requirements such as code of conducts, guide

lines, consultancy service (eg.Code of measurements, IDP data bank, and mandatory of SLVS -2015 etc.)

The PVs accepted that existing safeguards are significant in mitigating the threats and in addition to that proposals were suggested. Out of that CPD programs, valuers experience and internal reviewing were identified as strongest safeguards which were not implemented as a result of code of ethical principles. Central bank directives and valuation reviewing were implemented by the banks and experience factor is personal asset to a valuer. Then only CPD programs was implemented by the IVSL with connected regulations is not solely contribute to code of ethics and the improvement requirement of existing CPD system also will comment at recommendation chapter. For example, the importance of SLVS – 2015 and its mandatory nature still not discussed in CPD program so far. Information gathered through the interview revealed that there is no proper assessment system to evaluate the valuers unethical behavior being result to non-performed loan mere the loss is bared by the bank. So sufficiency of existing and proposed safeguards cannot measure accurately since absence of system to recover such loss from the valuer. Thus the hypothesis holds true since existing traditional safeguards are largely influence on ethical behavior of professional valuers engage in Sri Lanka mortgage valuations. However the final output of this research emphasizes the need of monitoring the SLVS – 2015 on the way facilitating other connected requirements.

Conclusion and Recommendations

Most of bank managers and valuers suggestions was not for new safeguards, but for the improvements to the existing framework. This will discussed based on each existing safeguards. In existing safeguard imposed by central bank and banks themselves based on the experience and membership category of the member belong. But some are arguing even most of valuers are have been served number of years to Government department and in mortgage valuations, most of them are specialized in a limited area of valuations and adopting similar methods in valuations. For example most of valuers are familiar with residential valuations and adopting contractor's test in most of cases. Conversely they may not bright in special property (hotel, restaurant, plant & machinery etc.) valuations. So instead of giving all valuations to a single valuer, should assign what he is expertise depending the gravity of case.

Existing system of enrollment to the bank has to change enabling junior valuers to enter in to mortgage industry after 5 or 7 years' experience. But their assignment

cases should be graded according to experience and property value. Further verification of valuers in revaluation assignment is essential to prevent continuation of error made at first instances. A manager added “Ultimately what I feel is valuer should think high and have proper integrity himself. From that precise and standards of valuation at time to time have to be updated in regular intervals.” A manager added that the experience should not be limited for number of years the valuer served; It should be ranking system based on number of valuations per annum reported and their gravity. That’s only competence can gain”. The purpose of CPD held by IVSL is should updated to fill the knowledge gap. However most of valuers opinion is existing system have to change by broadening the field discussion and they will useful in publishing in website enabling enhancing knowledge through all publications. That will remove the geographical and point oriented barriers. Also it will paved path to obtain knowledge and experience of veteran professionals in the field as well as outsiders but relevant.

Existing internal review system is blamed on the ground that some personal attitudes of panel valuers being include in their decisions against reviewing valuers. They mentioned that comments of the review panel’s at some instances, seems to be baseless making doubt to them. Opinion of senior valuer regarding this is the existing Sri Lankan valuation standards – 2015 (SLVS-2015) should legalized being mandatory to abide by all members. When the system comes to that standard, all comments by review panel have to refer the relevant section of the SLVS-2015. And also it will regularize various perceptions valuers in to single point. The communication network between the banks and IVSL have to strength being easy to complaints on unethical practices by professional valuers and proper channel of inquiry and disciplinary action is essential disregarding the valuer’s status. Because as per existing system, the loss occurred due to unethical practices have to apparently bear by the bank. But actually that is transferred to the mortgagor (public).The moderate level of understanding FEPs is not enough for professionals. A proper system of teaching them at degree level, training in work camp, and being lifelong learning system is essential. The main reasons for SL specific threats are the existing gap of standards of the valuation profession and related professional body when compared to that in developed countries (eg. RICS). Hence a long term professional development plan has to be implemented to reach the profession in to international standard. Then only eliminate the said additional threats.

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Identification the Importance of Viewsheds for Tourism Development with Special Reference to Ella and Kandy Towns, Sri Lanka

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Abstract

The natural landscape and visual quality of a community provide a sense of pride and individuality, setting it apart from other places. Special vistas, views and scenic areas contribute significantly to the quality of life, add to the value of property, and enhance the desirability and livability of a community. People respond positively to places that are visually appealing because an extremely high percent of human sensory experience is visual. When development occurs on or in the vicinity of a well-recognized landmark or outstanding view, it can have a dramatic effect upon whether people still consider that place special. Thus it is timely need to identify the viewsheds of an emerging tourist destination and make them preserve. Preserving viewsheds means preserving quality of life, a healthy environment and a desirable community for visitors and residents alike. Identification of viewsheds also has become limited to certain methodologies where it is not practical to get strategic decisions. Addressing all such issues viewshed analysis identifies viewshed of a particular point and this helps the policy makers to take necessary actions to preserve the viewsheds. Based on the viewshed analysis the research attempts to evaluate the viewshed of Kandy Town what is argued to be destroyed based on unmonitored development. The second case study is Ella, which is an emerging tourist destination where the viewsheds are still maintained. The research findings emphasize how viewsheds attract the tourists and the possible negative consequences of unplanned viewsheds.

Keyword: View shed, Landscape, Tourism, Development, Sustainability.

Introduction

The landscape stores, in its meaning, a type of visual and/or picturesque information, which, most often, is assessed in a subjective manner (Lynch, 1960; Litton et al., 1978; Clay & Smidt, 2004). Each landscape is unique, therefore its visual quality depends on the combinations of attributes of the unique landscape and the perception of the person involved in the analysis of the landscape may represent an assessment instrument there of (Dincă et al., 2012; Jancura, 1998; Stefunkova, 2000; Salasova, 1996; Low Michal, 2003). Anyhow, the main

perception of a tourist is to feel difference and expose them to a pleasant appealing. According to the tourism strategic plan 2017-2020 published the Sri Lanka Tourism Development Authority the green preferences of the tourists coming to the country is high. It reflects that the preserving green sceneries and related landscapes are becoming one of the best approaches to increase the tourist attractions.

An important role in the understanding of spatial distribution of landscape elements is represented by viewsheds. In the studies conducted by Fry et al., (2004), Kvamme (1990), Lock and Stancic (1995), Tilley (1994) viewsheds were used as useful instruments in the visualization and assessment of landscape elements, such as natural elements and attractive views.

With most of the developments The viewsheds were damaged due to— the development takes place along the viewsheds without any controls. This effect gets its extreme form within an area where tourist development is a potential fact. Thus it is an important fact to identify the viewsheds of a tourist destination and preserve them. In some countries like USA, there are some special regulations on monitoring viewsheds.

Viewsheds are localized depending on the specific of the relief, the latter, through its shapes and qualities, provides viable perspectives of landscape visualization. It is found that relief represents both an element which is part of the landscape's structure, as well as a factor limiting or favoring the visual perception on the landscape. Jakab and Petlus (2012), in their study, conducted a visibility analysis, starting precisely from the role of relief in the visual assessment of the landscape creating eco-tourism perspective.

This research also follows the same method in analyzing the viewsheds of selected two cases. First the viewshed of Kandy, what was already argued that the viewsheds are collapsed and most of the developments have taken place in the viewsheds. The second case is Ella, which is located in Badulla District can be identified as an emerging tourist destination located at a very unique place surrounded by attractive sceneries yet, is not harmed by development activities.

Methodology

In this study, the visibility analysis is performed through the viewshed analysis function, from the menu of the ArcGIS software, and the result thereof consists in generating an area of visibility, in raster format, for each tourist destinations.

Raster data, were used such as the DEM (digital elevation model) of the respective case studies, namely vector point data, represented by the viewpoints mapped. Such an analysis is deemed objective, since the areas of visibility on the landscape are created on measurements based on the DEM and the interpolation of the viewsheds, basically creating, in the end, a GIS spatial modeling of the territory. Thus, the Viewshed method implies a mathematical representation of the landscape, which takes into account including the altitude of the relief, the height of the observer, the curvature of the land etc. (Connolly & Lake, 2006). The method was successfully used in numerous studies of landscaping and during the assessment of the visual impact of landscape elements. In the study conducted by Llobera (2001), Wheatley & Gillings (2000), the Viewshed method was used to see if the two archaeological sites are inter-visible, or if certain predominant features of the landscape, natural or cultural, may be observed by people placed in various points located within the landscape. Among the studies for which this method was used for the assessment of the various features of the landscape, are included those conducted by Heather & Steven (2006), Gillings (2009), Jakab & Petlus (2012), etc.

Analysis

Case 01 – Kandy

Kandy is Sri Lanka's second biggest city and the capital of the Central Province. The busy town is situated in a valley at an elevation of 600m, inside a wide loop of the Mahaweli River and is surrounded by hills covered with tropical vegetation. It is the home to the Sri Dalada Maligawa – the beautiful temple that houses the tooth relic of Lord Buddha. Kandy is also a popular stop during July/August when the annual Esala Perahera (holy festival) takes to the streets of the city. The cool climate of the hills is a relief after the cloying heat of the lowlands, and the lovely Kandy Lake and the drives around it are set amidst great scenic beauty.

Due to its scenic beauty Kandy Town is getting famous and getting attractive to the people, but with the increasing demand Kandy Town losses its scenic beauty. Below images illustrate how the mountain ranges are overwhelmed by developments.



As per the viewshed analysis done for Kandy orients more towards Asgiriya, Udawatta Forest and Mahaiyawa. Still there is no government strategy and policy to preserve the viewsheds. Most of the tourist hotels tend to market these sceneries based on their locations.

In Kandy there are more than 1000 hotels. The viewshed was calculated for the city centre the hotels located within 1Km radius. Below information provide the marketing strategy of some of the leading hotels in Kandy. Among them around 60% of the hotels use Udawatta Forest and Mountain View as a marketing strategy to attract tourists. Below are some of the viewshed based marketing strategies.

Table 1 – Marketing Strategies of the identified hotels

Name of the Hotel	Marketing Strategy
Mountain View Holidays	Mountain view
The Swiss Residence Kandy	City View
Hotel Sussie	Delux lake view and mountain view rooms
Mahaweli reach Hotel	Mountain trekking and views
Clock Inn Hotel	Forest View and Lake view

Source: Compiled by the author based on the hotel websites. (2017)

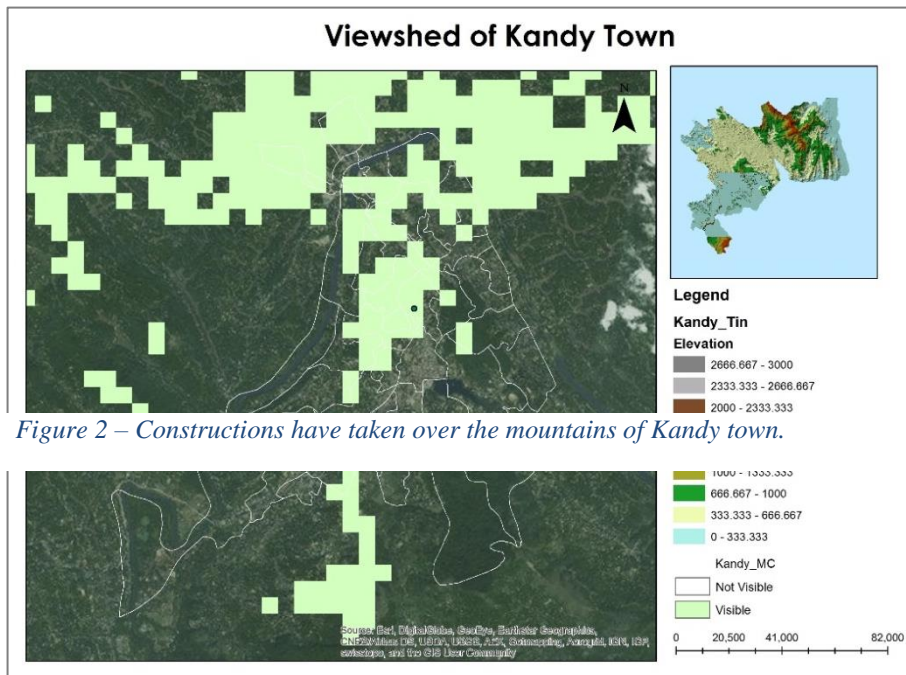


Figure 2 – Constructions have taken over the mountains of Kandy town.

It shows that most of the hotels tend to market the viewsheds. Thus, it is really questionable with the decline of the quality of viewsheds what the hotels are going to market in future.

Case 02 – Ella Town.

Ella town is located in Badulla district -is a hill country village where a tourist can go through lot of adventures. Ella is located in a valley at about 1000m elevation, surrounded by even higher mountains.

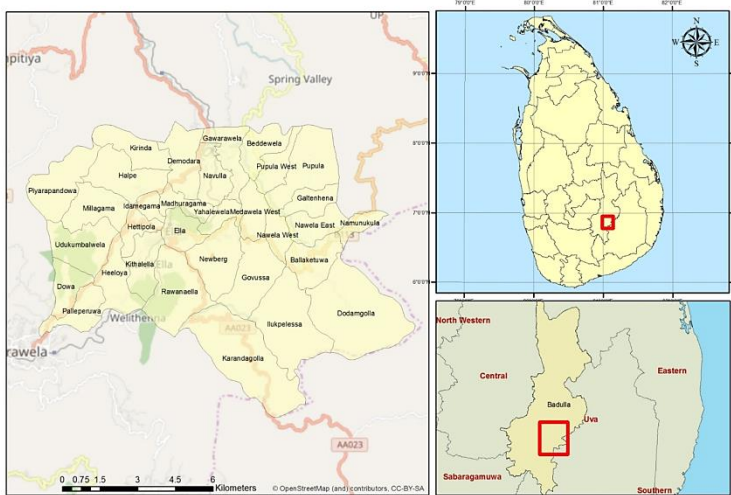
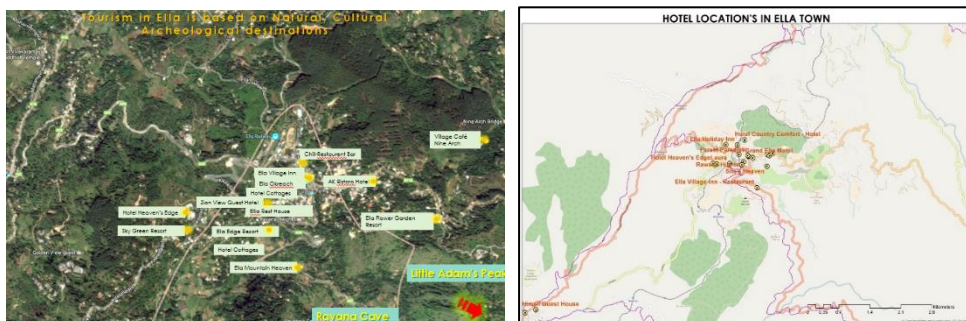


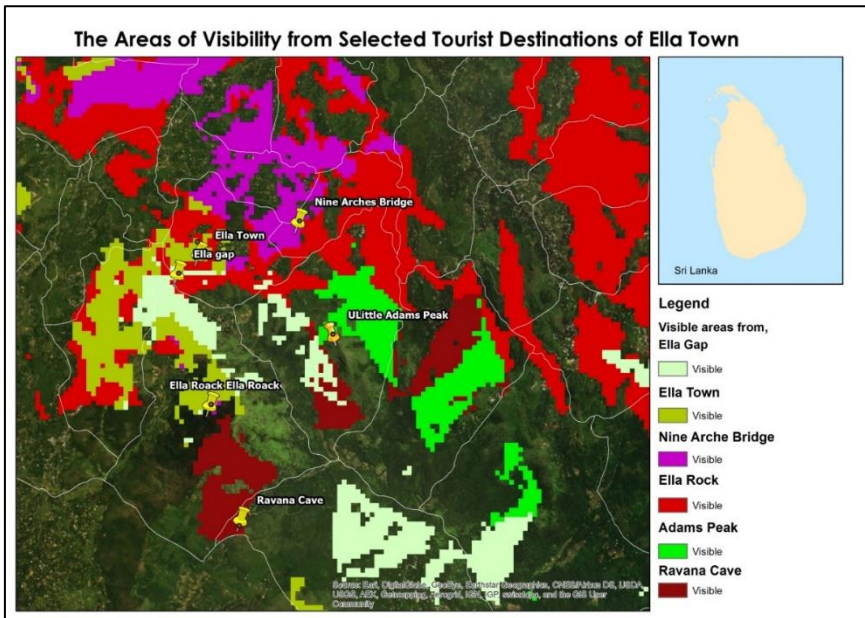
Figure 3- Location map of Ella town

With reference to the figure 6 Ella town itself provides visibility to Ella rock and some parts of the Ella gap. The hotels located in Ella town make use of the sceneries around it as possible potentials to develop tourist destinations. Still the existing sceneries are not damaged with construction activities. Although there is an increasing demand for hotels they are still confined to the city limits except for few. The research uses the natural elevations to analyze the viewsheds and attempts to analyze the characters of the viewsheds.

Below maps show the key tourist destinations of Ella Town and the locations of hotels. Hotels are much more confined to Ella Town where the key tourist



destination is located outside the town providing walkable access to the tourist destinations.



Source: Field Observations & Google earth)

The research analyze the viewsheds of Ella town, Ella gap, Ella rock, Little Adam’s Peak, Nine Arche bridge and Ravana cave. Below map illustrates the different viewsheds of these

Based on the above map unlike in Kandy the viewsheds of most of the tourist



destinations are still preserved within Ella town. When compared to the case of Kandy with the increasing demand there is a potential to expand the tourist destinations. Since the total market and economic value is determined by its

sceneries and tourist destinations proper rules and regulations to protect the viewsheds.

Compared to Kandy Town the viewsheds are more or less preserved in Ella town. In contrast with reference to the figure 8 it still shows the development moves ahead towards the mountain edges. Since Sri Lanka is a country that promotes eco-tourism existence greeneries and natural habitats enhance the value of viewsheds. Many tourism promoting websites in Sri Lanka market Ella for tourism and tend to promote hiking, enjoying the tea field views, cooking at Ella Spice Garden etc. All these facts emphasize that people wish to see something pleasant from the top of the rock. If these viewsheds are damaged the tourists reluctant to have a ride along these rock where ultimately leads to reduce the tourist attraction.

Conclusion

Viewsheds increase the desirability of an area, which promote tourism. If viewsheds are not protected Thus this research suggests some strategies to reduce the adverse effects of developments to the viewsheds such as relocating structures: modifying building designs, modifying the building silhouette, or using a stepped building design etc, where a further systematic research needs to be focused on.

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River Basin Approach in Land Use Planning and land Restoration (A Case Study in Upper Walawe River Basin)

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Abstract

The concept River Basin Approach for the natural resources management is tested under this study. For this purpose seven sub-water sheds of upper walawe river catchment was selected. Geographically it covers about 113,239 ha. Of land extent of the walawe river basin. Main objective of this study is to develop a set of maps to determine social vulnerability to natural disasters and develop land restoration plan for the area. Results of the study shows that the social vulnerability to natural disasters are moderate to very high in many sub watersheds. For instance several places of some water sheds, social vulnerability to land slides are very high. Some of the areas where the human induced activities are exists, social vulnerability to forest fire, soil erosion, increased impacts of droughts are significant. As the entire area is environmentally very sensitive and fragile careful resources management strategies are recommended to overcome this situation. Map overlays shows that lands prone to be high risk in land slides are consisted with human settlements, build up areas and cultivated lands. Therefore these areas are falling under the high risk of social vulnerability. Immediate land restoration measures are suggested to overcome this problem, such as soil and water conservation measures as well as evacuate people from high risk of vulnerability. On the other hand 45 % of the total land area of the catchment is coming under the forest and part of them are falling under wild life reserves. Therefore vulnerability to forest fire and deforestation is very high. Three out of seven sub-watersheds are consisted with very high drainage densities and such micro-catchments are recommended to protect and conserve. On the other hand, in releasing lands for any development activity, recommended environmental assessments are suggested to determine suitable areas. To enhance the overall process of land selection and land allocation a zoning plan is drawn up and expected to share this knowledge among all the stakeholder agencies concerned.

Introduction

The importance of river basin approach in natural resource management has been widely discussed by several authors since 1980's (Madduma Bandara C.M. 1984). In general main principle governing this concept is to avoid administrative

boundaries and to adhere with natural boundary of a river system or cascade system of the area concerned.

The drainage basin or watershed could be defined as an extent or an area of land where surface water from rain, melting snow or ice converges to a single point at a lower elevation, usually the exit of the basin where the waters join another water body, such as a river, lake, reservoir, estuary, wetland sea or ocean. It is a natural boundary where all eco-systems functions take place without disturbances.

In applying such an approach, many shortcomings encountered by planners and implementing agencies could be minimized and their effectiveness can be enhanced.

Study Area

Seven sub watersheds situated in the upper reaches of uda -walawe reservoir was selected for the study

This area of the walawe river basin can be considered as one of the important ecological zone according to it's environmental importance and significance. This area is comprising of 07 sub- water sheds located in the upper reaches of the Walawe basin and covers the Land area of 983 Km² and falling in the districts of Ratnpura, Badulla and Monaragala.

Geographically this area is lying within the geo- coordinates of 6^o.26'.00" - 6^o.49'30"N & 80^o.33'.0" – 81^o.1'.30"E respectively.

As mentioned above, this area of concern is subjected to a number of environmental issues due to de- forestation, chena cultivation, illicit timber logging and wide range of improper land use practices. The resulted impacts due to these activities are loss of bio- diversity, soil erosion, loss of soil fertility, low productivity of land use and severe damage to the water sources.

Further, due to improper land use practices such as illegal gem mining, sand and earth cutting for construction industries and domestic uses also Leads to different forms of environmental related issues in the area. Due to all these practices, the Natural Resources Base in the area is threatened and deteriorating at an alarming rate. Administratively, this area falling under four districts and majority of the areas are belong to Badulla Monaragala and Rathnapura Districts and balance parts belonged to Nuwaraeliya District. The details of above sub-watersheds are given below.

Name of the sub-watershed	Land Extent (ha)	Administrative District belonged	Divisional Secretary Divisions
Uda walawe	142	Monaragala	Thanamalwila
Malakandura Ara	41	-do-	-do-
Weli Oya	135	Badulla	Haldummulla/Haputale
Upper welioya	132	Badulla/Ratnapura	Haldummulla/Imbulpe
Upperwelioya	423	Rathnapura/Nuwaraeliya	Imbulpe/Balangoda/Nuwaraeliya
Diyawinioya	110	Ratnapura	Weligepola
Total Land Area	983	Rathnapura	Imbulpe

Therefore, the preparation of Land Use Plan and the associated Data Base and Series of Maps are essential to enhance the decision making process related to above area of concern.

However, Lack of required information and properly developed information management system is identified as a one of the main problem encountered during the past.

Therefore, this study mainly focused to fulfil the above data gap through a comprehensive GIS based information management system to develop resilience improvement plan for the area selected.

Methodology Adopted

Detailed land use mapping at the field level to the scale of 1:10,000 was carried out to determined existing land use pattern in the area and at the same time bio-physical and socio economic data collection was executed on the basis of sub watersheds.

Population data and information related to environmental sensitive aspects and other important facts were collected through a questionnaire survey and discussions.

Other informations such as disaster zonation maps etc. were collected through the institutions such as NBRO.

Analysis were done through the GIS assisted tools and guidelines developed by relevant authorities were employed for social vulnerability mapping and determination of environmentally sensitive areas.

Recommendations

It was found that many of the land uses are presently not at the level of satisfactory. Specially, semi-permanent farming systems are causing many damages to the land and environments. Also it was identified that several land uses are falling under the high risk category of land slides. Certain areas of the all seven sub watersheds are consisted with many type of environmental sensitive areas. Forest cover in the area also reduced due to anthropogenic reasons. Lack of knowledge, consensus and awareness have a great bearing on sustainable land management practices was also observed. Therefore, following recommendations are proposed to restoration of degraded lands in the area and several measures are suggested to reduce social vulnerability to natural disasters.

- i). Zonation of land as per the ecological importance.
- ii). Elimination of environmentally sensitive areas from development activities.
- iii). Restoration of degraded agricultural lands.
- iv). Protect and conserve ecologically important micro-catchments.
- v). Create awareness and training among all stakeholders on sustainable land management practices.

Local inclusiveness in National Parks: a case study of Uda Walawe National Park

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Abstract

National Parks have been used over the years as a model of preserving and conserving plants and animal. Also, governments use it as a tool of rural poverty elimination. But these National Parks have different visitation and revenue levels, which will transfer to the central government. Therefore, these revenue statistics of National Parks in developing countries usually do not imply micro economic development impacts of National Parks to rural areas. In the context of subsistence economies with large rural populations in developing countries, National Parks should provide local economic development benefits to achieve local buying, contribution and ownership towards conservation. However, the local people may gain few direct benefits from parks while bearing many costs, which has not been assessed. In the above context this paper firstly, examines the role of National Parks in local economic development. Secondly, it examines the factors of local participation and inclusiveness introduces using case study of Udawalawe National Parks. A supply chain, and value chain based methodology was employed to estimate the local economic share of the park value chain. Results indicates that factors such as human capital, financial capital, social capital, level of complementarity between tourism and local livelihoods, and absence of endogenous growth policies and initiatives have limited the local access and participation in park value chain. Value chain of the Udawalawe National Park indicates that the national park generates only small value for the local economy while major share flowing outside the locality. This suggests for tourism revenue-sharing programmes to offset costs and improve local attitudes towards conservation.

Keywords: National Parks, Local Economic Development, Value Chain, Community Perceptions, Conservation

Introduction

At present Sri Lanka has declared 26 national parks covering 7443.76 sq.km of land area of the country. Similar to 'western' countries the main objective of introducing National Parks in Sri Lanka was to ensure the maximum protection of

wildlife & habitats (Department of wildlife conservation, 2015). The Department of Wildlife Conservation manages all these parks, which is under administration of the central government. Therefore, all the revenue collected from renting park bungalows, and issuing entry tickets for visitors, vehicles and boats transfer to treasury. Although the revenue from the parks account around Rs. 1.6 billion per annum (Sri Lanka Tourism Development Authority, 2016), there is no any mechanism of revenue-sharing with the local people (Figure 1).

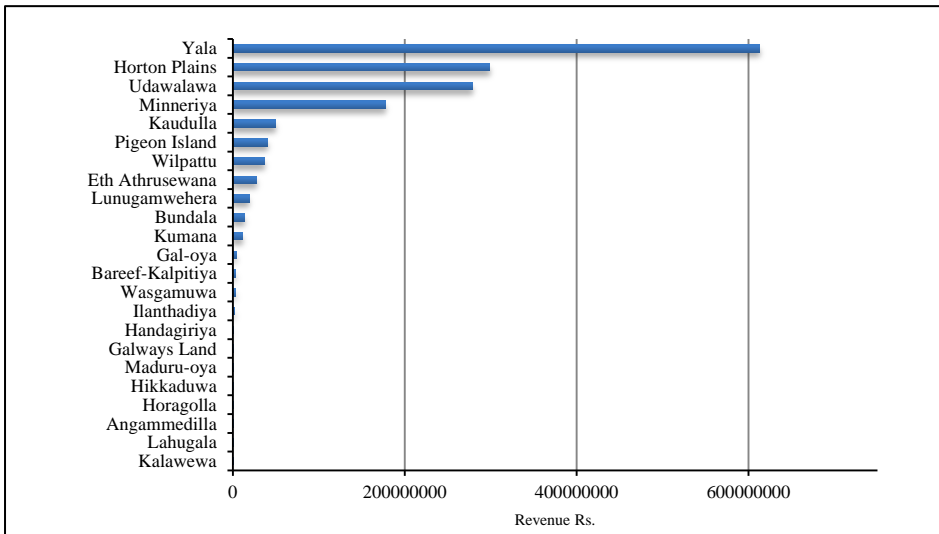


Figure 1: Total revenue of National Parks – 2015

Despite the government objective of rural poverty elimination through tourism development, local people around the parks bear many costs and risks. For instance, National Parks, Strict natural reserves, nature reserves, sanctuaries, and jungle corridors predominantly in rural areas utilize around 19.1% of land area (Department of wildlife conservation, 2015) which has limit the land for agriculture, irrigation, housing and other development activities local people. At the same time, depredations on crops and livestock by animals, inflation, disruptions to social networks and local culture, external investment pressure create costs and risks to the local economy.

The tourism supply chains around National Parks include many actors like park management (Department of Wildlife Conservation), accommodation providers (guest houses, hotels, villas, etc), food outlets (restaurants, cafes, etc), tour operators and guides, transportation providers (jeep riders, three wheelers, hired vehicles, etc), and shops (souvenir shops, supermarkets, etc). However, the key

question is how much share that the local people gain from all these operations around National Parks?

Method and Case study

Method of this research is structured around a literature review, a qualitative exploratory study and a value chain analysis. First, the dual role of National Parks was conceptualized with a literature review on concepts of local inclusiveness, natural asset conservation and socio-economic sustainability. Second, the Udawalawe National Park and its supply chains were used as the case study to measure the local share and to explore factors effecting local share. In order to explore the effect of different factor on local inclusiveness, different purposive samples were selected from the case study area. For the value chain study, local visitor and foreign visitor value chains were studied with a proportionate sample based on population size of each value chain segment.

It has recorded third highest revenue and visitation compared to all 26 National Parks in Sri Lanka. Importantly this Park is surrounded by rural settlement which justifies the case study. Park lies on 308.21 km² of land area which was a chena cultivation converted to a park in 1972.

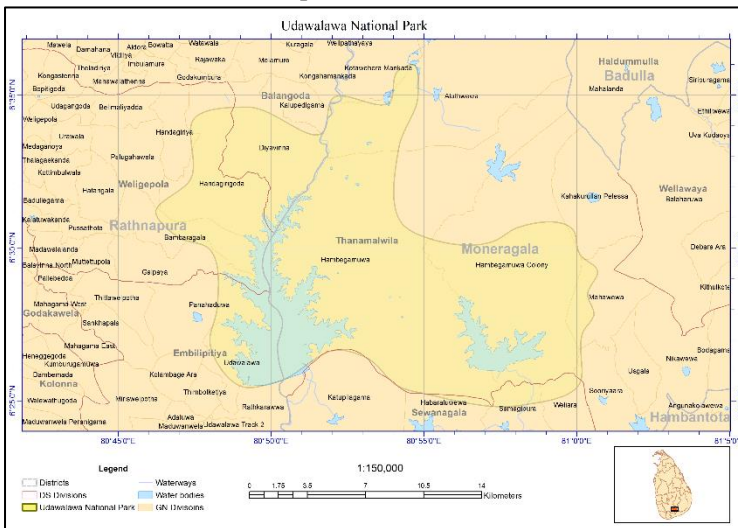


Figure 2: Case study area

Literature and findings

Natural assets conservation and local people

Natural resource economists treat National Parks as a form of capital asset that produce flow of beneficial goods and services over time (Barbier, 2009). These

(2015) in their studies assert the inclusive development “as development that includes marginalized people, sectors and countries in social, political and economic processes for increased human well-being, social and environmental sustainability, and empowerment. Nicky Pouw and Joyeeta Gupta (2017) discussed the inclusive development in the perspective of four contested terms where they argue that it addresses the social, ecological and relational inclusiveness.

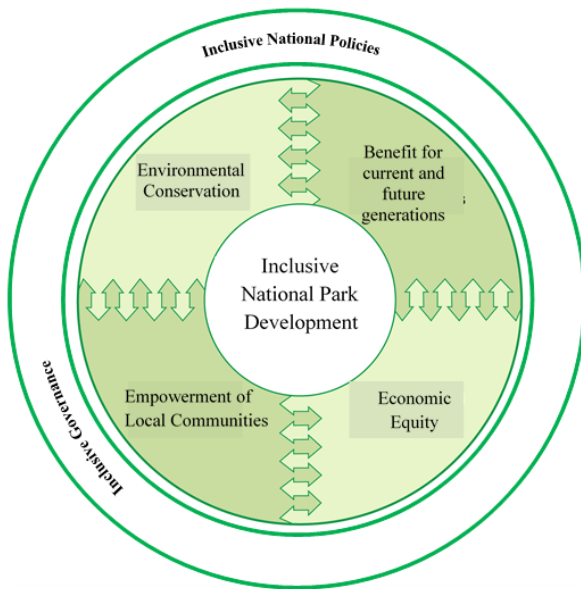


Figure 3: Conceptual framework on inclusive development
Source: Compiled by author

In such a context, this paper argues on the need of more inclusive development of the National Parks specially the locals. Though these National Parks bare certain benefits, its disparity in distributing these benefits for the surrounding communities is an evident fact. The root cause lies in the lack of proper mechanism for the National Park development. “products of a (public) forest are private (excludable) goods, which, in the absence of specific mechanisms to protect the poor, are often captured by members of a village elite that might already have captured the decentralized village-level forest institutions as cited in (Kumar citing Saxena & Sarin, 2002). Hence, the conceptual framework illustrated in Figure 3 can be adapted in developing a detail mechanism for the National Park development.

Factors affect the local inclusiveness

Local inclusiveness in development around National Parks depends on whether and how locals can participate economically in the park supply chain and tourism. At the same time non-economic impacts such as attitudes, perceptions, culture, and social impacts of tourism must also be considered. A wide range of factors ranging from the local (human and financial capital, livelihood strategies, social capital, gender, location and assets) to the policy environment (land tenure, regulations and bureaucracy) and commercial context (market segments and supply chains) influence their participation and access (Ashley, et al., 2000; Bennett & Dearden, 2014; Goodwin, 2002).

In terms of human capital, particularly important skills in tourism include language, entrepreneurship and an understanding of tourist expectations. In udawalawe, people who do not have such skills are clearly excluded from the market. The impact of human capital on local participation in park supply chain was studied by examine the skill levels of different accommodation facility managers around Udawalawe National Park. Sample included two (02) hotels, four (04) guest houses/ bungalows and two (02) home stay units based on their proportionate presence in the market. Sample showed clear positive correlation (number of operators around the park are not adequate to run a statistical test) between human capital level and the scale of accommodation establishment (Figure 4). This was more significant with the language skills and management skills.

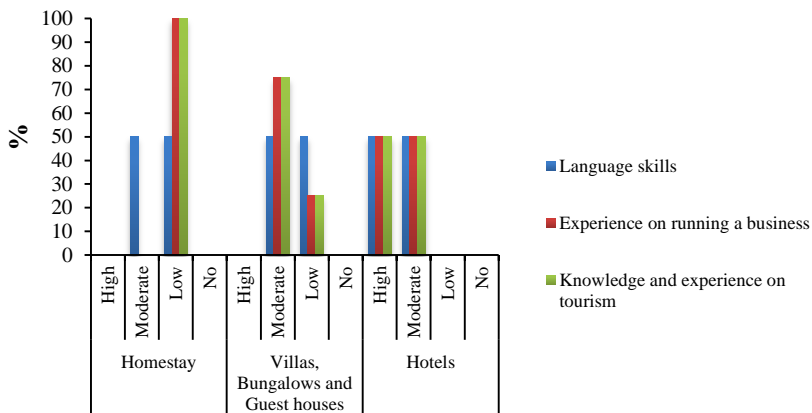


Figure 4 : Impact of human capital on local participation in accommodation industry

Financial capital is critical for the locals to be able to expand informal sector activities within tourism. However, they have been squeezed out by large scale outside investors and government (bungalows inside park under the Department of Wildlife Conservation). There is no any classified hotel within the radius of 50km from the park. Department of Wildlife Conservation has four (04) bungalows inside the park, which charge around Rs. 51,300 and Rs. 12,000 from group of ten (10) foreigners and locals respectively (Rs. 5,130 and 1,200 per head respectively). The local guesthouse charges range from Rs. 500 to Rs. 2,500 and the chain hotels charges range from Rs. 15,000 to Rs. 24,000 per night per pax. The value chain analysis evident that out of total accommodation expenditure the local share from the packaged tourists is 0%, non-packaged tourists 78% and local tourists 32%. Packaged tourist with higher purchasing power always prefer to stay at chain hotels located around 25km to 60 km distance from the park. Non-packaged tourists usually stay about 2 nights near park and prefer to stay either at guesthouse or park bungalows at a lower price. Majority of local tourists make one-day tour into park and the rest prefer to stay at park bungalows.

Norms, networks and trusts are the three main pillars of social capital leading to collective actions and development (Hwang & Stewart, 2017). In order to evaluate the networks between different groups in the national park supply chain, a perception survey was conducted among park rangers (02), three-wheel drivers (04), guesthouse owners (03), safari jeep riders (05), chain hotels (02), and tour operators (02) based on their presence in the market.

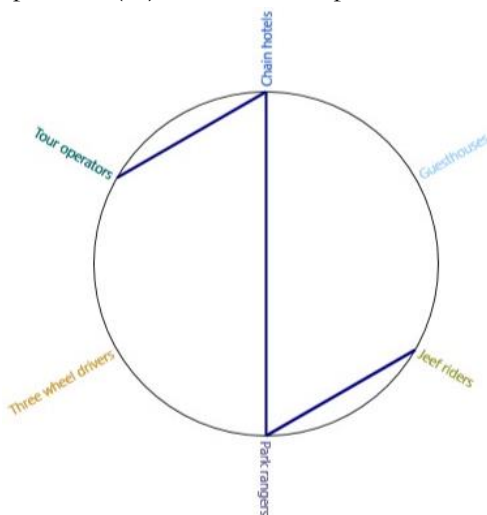


Figure 5 : Cluster analysis showing the networks between groups

These respondents were asked to explain how they operate in the market and their customers with an open-ended question. These statements by different groups then analysed using cluster analysis measuring the Pearson Correlation between different statements by different groups. Figure 5 below indicates strong networks between Tour operators, Chain hotels, Park rangers and Safari jeep riders who have negligible contribution to the local economy. On the other hand, three-wheel drivers and guesthouse owners have weak positive correlation highlights the lower level of social capital which impact local inclusiveness. This also shows the poor linkages between the formal sector and local suppliers. Locals' access to the tourism market is most constrained where all-inclusive packages develop.

Level of complementarity between tourism and other rural livelihoods impact on local participation. The National Park and the surrounding area are irrigated by the Uda Walawe irrigation scheme under the Mahaweli Authority of Sri Lanka. Farmers in the area cultivate with rice, banana and other field crops both during Maha, from October till February, and Yala season, from April till August. Although dry months from June to September are the season for elephant sighting in the park, local farmers and fishermen have to compete with tourism and wildlife for water. More importantly this is the time when elephants encroach on human habitation for water and food. Human elephant conflict in the vicinity (Dehaiyagal, Pokunuthanna, Aluthwawa and Neraluwa) of the National Park has made local people to think park not as an asset to conserve and benefit from, but a threat.

Conclusions

The underlying hypothesis of this research is that National Parks have the role of not only natural asset conservation (environmental sustainability) but also the local economic development (socio-economic sustainability) with local inclusive development approach. However, planning and management of National Parks in Sri Lanka yet have not developed local development initiatives or benefit sharing mechanism which stress the locals with costs and risks. The result is local people have small share of benefits from National Parks while bearing larger share of costs and risk associated with park. The value chain of the Udawalawe National Park illustrated in Figure 6 indicates this benefit cost mismatch of the local community, which discourage locals for conservation. The total value that comes to the local economy is less than 6% (including safari jeep rider salaries) of the Rs. 9.1 million total supply chain value per day. The central government share is around 9.8% including value of the wildlife circuit bungalows.

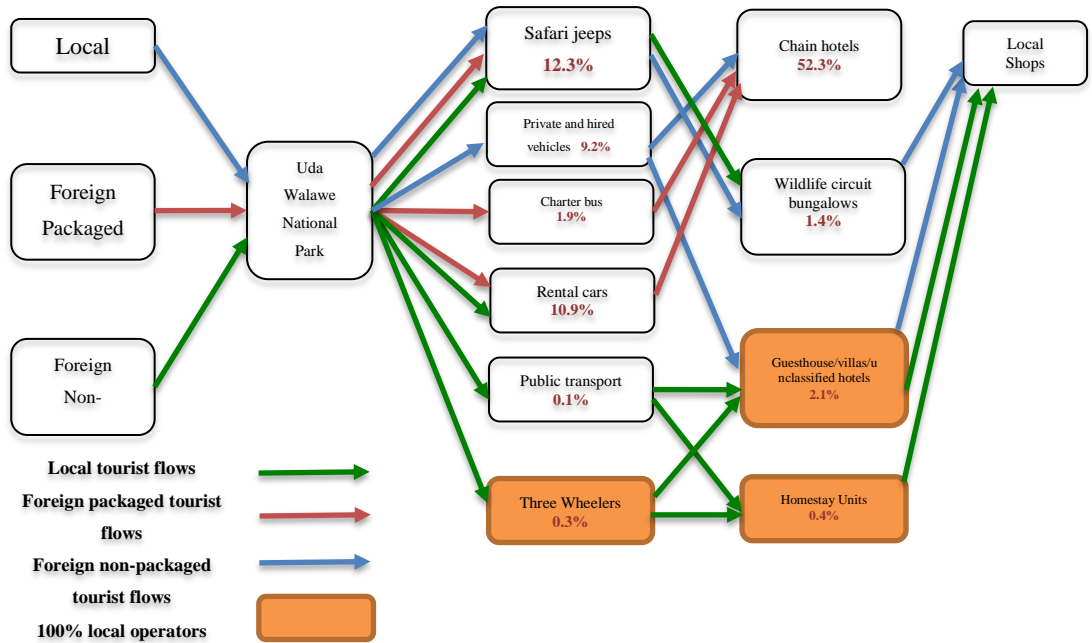


Figure 6 : Value chain of the Uda Walawe National Park Source: Compiled by author based on field survey data

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Smart Real Estate - Ethical Behavior of Professional Valuers

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In its Preamble to the **Standards of Valuation Practice and Valuers Code of Professional Ethics** – 2016 Edition, Appraisal Institute of US states that,

“Real estate is one of the basic sources of wealth in the global economy. Therefore, those who own, manage, sell, purchase, invest in or lend money on the security of real estate must have ready access to the services of individuals who provide unbiased opinions of value, as well as sound information, analyses and advice on a wide range of issues related to property economics . For these reasons, the services of valuers are vital to the well-being of our society and the global economy, and foster economic growth, stability and public confidence”.

Necessity of a Code of Conduct

This is due to two main reasons,

Fundamentals of Valuation

Consistency, Objectivity and **transparency** are the main three factors fundamental to building and sustaining **confidence and trust in valuation**.

Their achievement, both to form sound judgments and to report of value clearly and unambiguously to clients depend on,

Possessing and deploying the appropriate skills,

Knowledge,

Experience and

Ethical behaviour.

Duty of Valuers Leading to Professional Negligence

In 1977, Singer and Freidlander Ltd sued John D. Wood, and the criteria set by the court could be summarised as follows:

- (1) A surveyor is expected to take reasonable steps to apprise himself of new developments in the field.
- (2) A surveyor must be informed about land values of the country in general, market trends nationwide and values and trends in the particular area in question.

- (3) Valuation is not a precise science as there are too many imponderables. Two valuers can differ in opinion without either being negligent.

Pinpoint accuracy in the result is not to be expected of the valuer. There is a permissible margin of error which is known as the '**bracket**'. What can properly be expected from a competent valuer using reasonable skill and care is that the valuation falls within this bracket.

The bracket in the John D. Wood case was held to be **10 per cent either way**, but could be extended in exceptional cases to **15 per cent**.

This case is currently used as a basis for assessing **property valuation negligence**.

What is a 'Code of Ethics'

A code of ethics is a guide of principles designed to help professionals conduct of business honestly and with integrity.

A code of ethics document may outline the mission and values of the professional organization, how professionals are supposed to approach problems, the ethical principles based on the organization's core values and the standards to which the professional is held.

A code of ethics is important because it clearly lays out the rules for behavior and provides a preemptive warning.

There are two types of Codes of Ethics.

Compliance-Based Codes of Ethics

Compliance-based codes of ethics usually not only set out guidelines for conduct, but also lay out penalties for violations. This type of code of ethics is based on clear-cut rules and well-defined consequences rather than individual monitoring of personal behavior. Therefore, despite strict adherence to the law, some compliance-based codes of conduct do not promote a climate of moral responsibility within the company.

Eg. Establishment Code for govt. employees of Sri Lanka.

Value-Based Codes of Ethics

A value-based code of ethics deals with an organization's core value system. It may discuss standards of responsible conduct as they relate to the larger public good and the environment. Value-based ethical codes may require a **greater degree of self-regulation** than compliance-based codes. In this respect, individual monitoring of personal behavior and climate of moral responsibility are two major concerns.

Breaking Down 'Code of Ethics'

Breaking the code of ethics can result in termination or dismissal from the organization or Black Listing.

Ethical Behavior - Fundamental Principles

International Valuation Standards Council introduced Code of Ethical Principle for Professional Valuers in December 2011.

The IVSC's objective is to build confidence and public trust in the valuation process by creating a framework for the delivery of credible valuation opinions by suitably trained valuation professionals acting in an ethical manner.

This Code consists of:

The Fundamental Principles - consist of five principles of conduct to which a professional valuer is expected to adhere when providing a valuation service

The Fundamental Principles – Guidance - provides guidance on the conceptual approach that should be adopted in applying the Fundamental Principles.

Appendix 1 – Threats and Safeguards - identifies the principal categories of threat that may compromise a professional valuer's ability to comply with the Fundamental Principles and the types of safeguard that may be appropriate to avoid or mitigate those threats.

Appendix 2 – Discussion of Fundamental Principles - contains additional discussion of the Fundamental Principles with some illustrations of some common threats to a professional valuer's ability to comply with each of them and steps that should be taken to avoid those threats.

Accordingly, it is fundamental to the integrity of the valuation process that those who rely on valuations have confidence that,

- those valuations are provided by valuers who have the appropriate experience, skill and judgement,
- who act in a professional manner and who exercise their judgement free from any undue influence or bias.

Accordingly, a professional valuer is expected to comply with the following five ethical principles:

Integrity

to be straightforward and honest in professional and business relationships.

Objectivity

not to allow conflict of interest, or undue influence or bias to override professional or business judgement.

Competence

to maintain the professional knowledge and skill required to ensure that a client or employer receives a service that is based on current developments in practice, legislation, and valuation techniques. CPD/LLL.

Confidentiality:

to respect the confidentiality of information acquired as a result of professional and business relationships and not to disclose such information to third parties without proper and specific authority (unless there is a legal or professional right or duty to disclose), nor to use information for the personal advantage of the professional valuer or third parties.

Professional behaviour:

to act diligently and to produce work in a timely manner in accordance with applicable legal requirements, technical and professional standards. To always act in the public interest and to avoid any action that discredits the profession. Ethical Behaviour.

Applicability of this Code

Valuation Professional Organisations, in membership of the IVSC, are required to have rules requiring ethical conduct by their members. A Valuation Professional Organisations may adopt this Code or maintain its own rules, providing such rules reflect the five Fundamental Principles of this Code. Thus, Royal Institution of Chartered Surveyor follow the same ethical Principles and The Institute of Vauers, Sri Lanka has given reference to Ethical Principles of RICS.

Reference

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Professional, a Role Model of the Society

A.R. Ajith Fernando

Chartered Valuation Surveyor

When one talks on Smart Real Estate towards unmet Socio- Economic needs the immediate focus is on the professionals who are responsible for achieving the goals that leads to a better environment in a world where more people, government institutions, banks, commercial enterprises demand a high level of professional standards and ethics.

Why a professional be recognized by the people as a personality deferent from a normal character found in the society?

It is because the society depends on the advice given by a professional that directly affect the Socio –Economic needs.

An incorrect direction given by a professional could mislead the life of a person, endeavors of a firm or the development of an economy as a whole.

As such the society expects a high degree of professional know how mingled with high ethical standards from a person from whom they seek professional advice.

Royal Institution of Chartered Surveyors, the mark of property professionalism worldwide that seals it's members with an internationally recognized and respected mark of excellence and integrity, maintains a high professional and ethical standards.

The test of whether a professional is appropriately qualified to advise others in a particular field, involves certain criteria that has to be satisfied which is;

- ❖ Appropriate professional qualification to demonstrate technical competence.
- ❖ Membership of a professional body that demonstrate a commitment to ethical standards.
- ❖ Sufficient knowledge, skill and understanding on the subject.
- ❖ Compliance with the regulation governing the right to practice the profession.

To give professional advice, a person has to have an education on the particular field. Various institutions have recognized accredited study courses leading to the particular field of the profession that must be satisfied as a prequalification.

Secondly a professional has to have the membership of an institution controlling the activities of members of the particular field that has a commitment to ethical standards of its members.

Also the professional must be quite confident of his knowledge and understanding of the subject and area he is dealing with.

Further compliance of regulations governing the right to practice mainly set up by the institutions governing the particular field of practice has to be complied with. Example is to satisfy the annual requirement of the minimum hours of Continuing Professional Development.

Having satisfied all above conditions, a professional should always act with independence and objectivity. Any conflicts of interest must be declared and resolved prior to accepting an assignment which is essential for the best interest of the society.

Unfortunately today we live in a society where corruption has overtaken all above values that a professional should possess. It is not only within Sri Lanka but in many other parts of the world the leaders give priority to their personal interest keeping the needs of the community as secondary. Under such circumstances if a professional is to deliver to the public, what is expected of him, one should avoid any action that is inconsistent with their professional obligation.

Ethical behavior of a professional distinguishes him from others in the market place.

The basics of ethical standards that focus on the better regulation of a professional is built round the 5 principles, Proportionality, Accountability, Consistency Targeting and Transparency.

Within these principles the integrity of a professional should be demonstrated by the following characteristics;

- Be honest and trustworthy in all that you do.
- Be open and transparent in the way you work by sharing appropriate and necessary information with your clients.
- Respecting confidential information of your clients and potential clients. Don't divulge information to others unless it is appropriate to do so.

- Not taking advantage of a client, a colleague, a third party or anyone to whom you owe a duty of care.
- Not allowing bias, conflict of interest or the undue influence of others to override your professional or business judgments and obligations.
- Making clear to all interested parties where a conflict of interest, or even a potential conflict of interest, arises between you or your employer and your client.
- Not offering or accepting gifts, hospitality or services, which might suggest an improper obligation.
- Acting consistently in the public interest when it comes to making decisions or providing advice.

Also it is important that professionals should carry out their work in a timely manner with high standards of service and customer care as expected of them.

In providing a high standard of professional service, Continuing Professional Development (CPD) plays a vital role in the life of a professional. The world keeps on moving forward at a fair speed and the needs, requirements, technologies, standard of knowledge keeps on advancing day by day and the professionals who are expected to advise the public must always be updated with the current trends. This is why CPD has not only become a necessity to professional life, it has been made compulsory by RICS and many other professional bodies throughout the world.

A professional who is not updated with the current trends will be out dated and his advice to clients will be out dated which will not only a bad reputation to the person but also to the entire profession.

Majority of the professionals today are under the impression that attending seminars is the only means of continuing professional development. There are many other ways such as personal structured reading, books, journals, technical manuals, research papers etc. that keeps you updated with the global advancement. Also professional work based activities, self-directed and informal learning, personal activities outside work, courses and conferences are ways and means of keeping a professional up dated.

An essential requirement of a dynamic professional is to be on a target to upgrade himself at all times. For this one should always be aware of where he stands at every stage of life.

At every stage of life one should be aware of “where I stand and where I should go” in order to plan out your journey.

An effective method of self-appraisal is the “SWOT” analysis.

“S” stands for strengths, to know what your current core skills where you do well, your technical skills and knowledge and other transferable skills.

“W” stands for weaknesses. The greatest danger for a professional is to assume that he knows everything. From your own point of view and that of the others what are the areas you lack in your knowledge where an improvement is required. The feedback on your professional work during the past will help you to identify your areas of weakness.

Having identified these two areas within your professional life one could go to next step on identifying your opportunities for which “O” stands for and threats in front of you where “T” stands for.

Opportunities such as professional advancement in front of you, increasing the client base, higher recognition as a professional by the society and many more opportunities to upgrade you in your professional life. Also “Threats” such as competition from others, legislative changes, different skill requirements will be in front of a professional at any given stage.

The above test will indicate where I stay and where I should go and once this is established one could carefully plan how he should get to the proper target. This process will help to program a structured learning process as against a haphazard learning process.

Therefore it is very important for the professionals to live in a learning process every day of our professional life. The day we stop this, thinking that we know everything we will lack behind and others who live within continuing professional development will overtake us.

Therefore it is our prime duty to keep up to challenges of qualities, skills, competence and behaviors expected within the changing world and deliver to the society what is expected from us as professionals. This will not only keep our reputation, it will also safeguard the reputation of our profession and the reputation of the institution we are responsible for.

This is why it's so important that we work to earn a professional reputation in the society. True professionals are the first to be considered for promotions, they are awarded valuable projects or clients, and they are routinely successful in their careers.

The Doctrine of Public Trust and Its Application for the Protection of Natural Resources in Sri Lanka

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Introduction

The objectives of this paper are to ascertain the content of the doctrine and to examine the role of the Public Trust Doctrine in the protection of natural resources in Sri Lanka. As regards the methodology, the content and the role of the doctrine has been ascertained and evaluated with the aid of interpretations pronounced by the superior courts of Sri Lanka and overseas. In addition, International Conventions have also been used to pursue the aforesaid objectivities.

Sri Lanka's environmental law is a curious mixture of civil law and common law principles derived from Roman Dutch law and English law, statute law juristic writings and judge made law. As a result, there is a multiplicity of jurisdictions and institutions in the environmental arena. The judiciary on the other hand has shown a keen interest in the development of environmental law. One trend that should be noted is the interpolation of a new level of provincial government after the 13th Amendment to the Constitution in 1987¹. The constitutional amendment introduced a new level of institutions between the Central Government and local governments. Accordingly, Provincial governments also have legislative and executive power over environmental matters.

Concept of Trusteeship

The Doctrine of Public Trust is an important legal principle which has its roots relating to environment and public law. The duty cast on the State to protect and conserve the environment for the benefit of the people is not a new concept that was introduced with the enactment of the 1978 Constitution. In the *Danube River* case² (1997 – General List N92 25th September 1997, ICJ) then Vice President of the International Court of Justice C.G Weeramantry J, referred to the conversation of King Devanampiyatissa (247 -207 BC) and Arahata Mahinda dating back to the 3rd century BC. The excerpts from the said conversation is given below

‘ Or great king, the birds of the air and the beasts have as equal rights to live and move about in any part of the land as thou. The lands belongs to the people and all living beings; thou art only the guardian of it’ (Mahawansa; Chapter XIV).

The Doctrine of Public Trust which was developed through the concept of trusteeship of the kings and rulers is now a well developed legal principle in many parts of the world. In *Bulankulama case* the Supreme Court of Sri Lanka observed that the organs of State are guardians to whom the people have committed the care and preservation of the resources of the people.

In *Watte Gedara Wijebanda v Conservator General of Forests and Eight Others* (2007) ³, (per Shiranee Tilakawardane, J), the Supreme Court held :

Courts in Sri Lanka have long since recognized that the organs of the State are guardians to whom the people have committed the care and preservation of the resources of the people. This recognition of the Doctrine of the Public Trust, accords a great responsibility upon the Government to preserve and protect the environment and its resources.

Sources of Public Trust Doctrine

There are two possible sources of Public Trust Doctrine namely, (a) Roman Dutch law in relation to environmental law and (b) the notion of trusteeship in the law of Trusts. The Doctrine of Public Trust was initially developed in the Roman- Dutch law, particularly with reference to environmental law and the rights of the public to natural resources.

This notion of ‘common to all’ or common all mankind underlines the fundamental basis upon which the Doctrine operates : all natural resources such as rivers, forests, air are subject to common, or public ownership and therefore are held by the government in trusteeship for the use of the general public and are managed and utilized for public purposes. The doctrine also affirms that endowments of nature should be freely available to public, irrespective of the social or economic standing of the person. The roots and fundamental basis of the Doctrine may also be traced to the concept of trust which dictates that property or resources can be held by one person, on behalf of another.

Basis of Public Trust Doctrine in Sri Lanka

The Doctrine of Public Trust in Sri Lanka is the bedrock of the Constitution and elected officials and the arms of the State are mere enforcing agents of the power that is truly vested in the people. In this regard, Articles 3 and 4, Article 12(1) and

Chapter VI of the Constitution of the Democratic Socialist Republic of Sri Lanka are of immense importance and have been cited in many cases regarding the doctrine.

Also relevant are the Directive Principles of State Policy and Fundamental Duties outlined in Chapter VI of the Constitution and mostly importantly Article 28 which provides that ‘... It is the duty of every person in Sri Lanka – (d) to preserve and protect public property and to combat misuse and waste of public property and – (f) to protect nature and conserve its riches ‘.

Utility of the Doctrine in Sri Lanka.

The Supreme Court utilizes the doctrine as a potential tool for a multitude of purposes : (a) to rectify the abuse of discretionary power, (b) to prevent the exploitation of natural resources and (c) to shield the under privileged.

(a). A tool to rectify abuse of discretionary power.

It is an essential reality in Sri Lanka that legislature cannot legislate for every possible circumstance. In consequence, the conferring of discretionary power upon public official is essential. However, such discretionary power so conferred are not unlimited., unconstrained power. Unfortunately at present there is an misunderstanding that the term discretion is synonymous with unrestricted power. The Supreme Court echoes this sentiment in *Pahalibamadana v AG and Two Others* (1978)⁴ by observing that ‘when a power is entrusted to a very high and responsible officer, he may be expected to act reasonably, objectively and without bias while discharging his duties. When a public officials exceeds his disciplinary powers the Court on the basis of public trust doctrine can hold such person accountable for his actions.

(b). As a tool to prevent exploitation of natural resources.

In *Bulnakulama v Secretary Ministry of Industrial Development*, (2000)⁵ the notion of trusteeship and guardianship was invoked in relation to natural resources as opposed to public power. In this case the Supreme Court concluded that the Government is the trustee of natural resources of the country. Being such a trustee, the State has an obligation to protect these resources for public use and from exploitation by individuals for private commercial gain. Bulankulama Judgment recognized the right to sustainable development and the obligation of the State to respect the principle of inter generational equity in exploiting natural resources and granted redress through the somewhat restricted parameters of the constitutional Chapter on Fundamental Rights.

Recognizing that there are many operational definitions of sustainable development that are variations of the definitions of use by the Report of the World Commission on Environment and Development (1987)⁶, the Court went on to identify three main principles encompassed by that concept : (a) conservation of natural resources having regard to the principle of inter-generation equity (b) exploitation of natural resources in a sustainable manner (c) integration of environmental considerations into development programs.

The Doctrine also plays an immense role with regard to inter- generational equity which in its mode simplistic based terms can be described as equality between generations. Inter – generational equality with regard to natural resources entails the notion that one generation must act as guardians of natural resources in trust for the next and future generations. By acknowledging an obligation on the part of the public officials to use and preserve resources in a manner that is consistent with public trust, inter- generational equality will also result in the adoption of practices that contribute to sustainable development through the reasonable use of natural resources and preservation of conservation of the environment.

(c). A shield for the under privileged

Public Trust Doctrine also serves as a shield for the under privileged. This Doctrine may be used to facilitate the Rule of Law, thereby serving as a shield to protect the minorities and the under privileged. Public Trust Doctrine dictates that any person or officials that exercise collective power does so because such power which is vested in the people is entrusted to them. Therefore ensuring dignity and respect for all regardless of their socio economic standing and belief is a logical extension of the Doctrine as well.

In Sri Lanka, apart from an application for writ the executive or administrative action that is in violation of a fundamental right contained in Chapter III of the Constitution could be challenged in terms of Articles 17 read with Article 126 of the Constitution. Due to the excessive time taken to reach finality in a writ application, in average three to four years, in appropriate cases, there is a tendency to evoke the jurisdiction of the Supreme Court by way of a Fundamental Rights Application. Further in a fundamental rights application, the basis of challenge is infringement or imminent violation of a fundamental right recognized under Chapter III of the Constitution by executive or administrative action. Article 12 has been widely interpreted to include any arbitrary or irrational action by the executive that would constitute a violation of Article 12 of the Constitution

provided the petitioner is entitled to make an application in terms of Article 126(2) of the Constitution.

Accountability of public officials

Public officers are held to a standard of accountability whereby they are answerable and held accountable for their decisions and actions in the exercise of their powers. This principle of accountability is enshrined in legal documents with varying degrees of force in various part of the world.

Accordingly the Public Trust Doctrine is based on the notion that powers held by the Executive, Legislature and Judiciary are powers that originate with the people that are entrusted to such organs for the purpose of exercising government and with the sole objective of exercising such powers in good faith for the benefit of the people.

Conclusion

The Doctrine of Public Trust which derives strength and legal validity from provisions of the Constitution and other constitutional principles such as the rule of law which highlights that executive and administrative act must have a public benefit and public purpose. The Doctrine also highlights that no discretionary power is absolute or unfettered and that it is essential that public officers are held to a high standard in the execution of their powers for the purpose for which it was conferred. The abuse of power is a violation of the trust that public has reposed in such officials by virtue of Articles 3 and 4 of the Constitution and is therefore supported by the Directive Principles of State Policy and Fundamental Duties, of the Constitution of 1978.

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Value Based Land Partition Model: A case study in Homagama Pradeshiya Sabha Area

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Abstract:

This study focus on partition of undivided land among co-owners. Traditional land partition among co-owners often focuses on dividing the entire land into plots with equal extents. That leads to land plots with equal extents but dissimilar market values where some parties gain higher valued land plots with more benefits whereas others get less-valued ones consequently each parties may not be equally treated based on the value of the lots allocated to them. Simply the traditional practice focuses partition of land with equal extent not on the equal values. By this study, a model is being introduced to address this issue of traditional land partition ensuring the co-owners involved are given land plots with equal values as against the value of the entirety and also ensure sustainability of values. A case study in Homagama Pradeshiya Sabha Area was used for the development of the model where four co-owners were involved. The subject land was previously subdivided into four lots with similar extents. However, some of the owners were not satisfied the way it has been subdivided claiming the subdivision was not reasonable. Hence, it was needed to subdivide the land with equal and sustainable market values. The methodology used in this study has several stages that flow from collection of land related data to development of the model. Notional sub-division was done in order to find the total Market Value of the land using recent market evidences collected by a comprehensive market survey. Then the land was subdivided among four co-owners adapting per square foot rate and considering the cost of development, developers profit and time value of money. MS Excel and AutoCAD software were used for analyzing data and developing the model. Accordingly, this already tested model suggest to get a valuer involved in land partition among co-owners to ensure the divided plots though at dissimilar extents are having equal values on equitable basis.

Keywords: Land Partition, Market Value, Notional Sub-Division, Equal Values

Introduction

This study contributes to the fact that the valuer's involvement is needed for a partition of a land in order to ensure that the owners are treated equitably with equal and sustainable values. A case study in Homagama Pradeshiya Sabha area is used to develop the model of value-based partition which has been already tested and supported by professional real estate and property valuation proficiencies, expertise and knowledge.

In a traditional land subdivision, a large land area is subdivided into smaller land parcels with the purpose of easy development and independent development of one another to increase growth and maximize the use of space. This technique also stimulates the zoning process and selling off of the land. The Standard City Planning Enabling Act (SCPEA, 1928) included the following definition: "Subdivision" means the division of a lot, tract, or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale or of building development. It includes re-subdivision and, when appropriate to the context, relates to the process of subdividing or to the land or territory subdivided.

When it comes to land partition, according to Keenan (2012), only scenario and procedure are different from traditional land subdivision. Partition of land is applied when there is co-proprietorship to the land. Consent from all owners in order to partition of the land out from the original land title is needed.

However, as discussed by Kaddik & Rydberg (2013) and Cassady (2001), many limitations can be seen in traditional method of land subdivision. Moreover, it is frequently found that the extent is focused rather than the monetary value of the land when proposing traditional subdivisions and partitions where the involved parties are not equally and equitably treated in a satisfied manner in terms of market value.

The project which this study was based on was revolved around a partition of a land in which four parties were involved. Previously a traditional land partition was done to divide the land among the four owners. However, when considering the traditional way partition, it can be said that the values of the lots are different where some parties were given higher valued lands with more benefits. Hence, the parties were not contented with the previous partition and were convinced to get the land partition into four plots with equal market values. The objective of this

study is to introduce a model as a method for land partition ensuring the parties involved are given land plots with equal and sustainable values.

Methodology

In order to develop the model, the required data were extracted through Survey plan, land value schedules which was constructed using the market evidences found through a market survey in the area. Moreover, when the notional subdivision was done, the planning regulations of the Urban Development Authority (UDA) were considered. In order to analyse the data MS Excel was used and for the development of the notional and final sub-division model, AutoCAD software was used.

Case Overview

The studied case has 10A 03R 21.83P as per the given survey plan and is located within the Homagama Pradeshiya Sabha about 25km away from Colombo fronting Homagama - Diyangama Road. It is a co-owned land with four owners. Two residences with ancillary buildings were standing on the property however disregarded for the notional subdivision of the land in arriving at market value of the entire property based on Residual Method of partition Valuation.

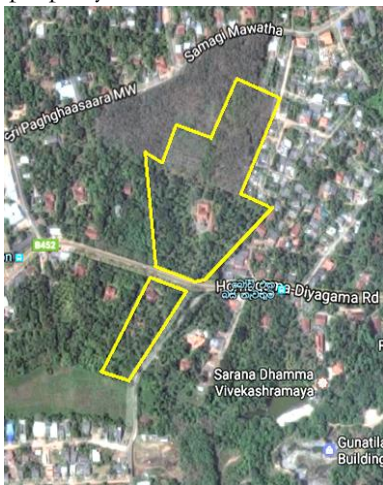


Figure 01: Location and the boundaries of the Subject Property

Through the development of the value-based subdivision model, the entire land was divided into four sections with equal values of each. It ensures the equality and sustainability of the values of land tracts given for each party.

Phases of The Model Building

The model development procedure includes eight steps. It flows from Collection of land related data to development of the model.

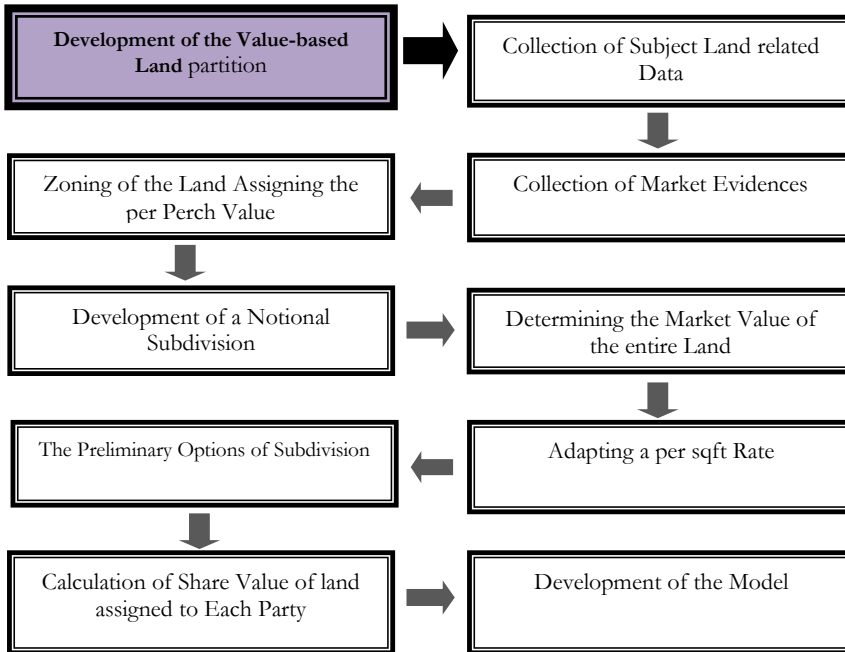


Figure 02: Steps of the Model Development Procedure

Collection of Land Related Data

The data were extracted through survey plan and the surveyor's AutoCAD drawing of the land and the other documents.

Collection of Market Evidences

A comprehensive market survey was done to identify the market values ranging in the area. Accordingly, zoning of the land was done adapting per perch rates varying from Rs. 700,000/- to Rs. 400,000/-.

Zoning Using the Per Perch Value

As per the Royal Institute of Chartered Surveyors (RICS), zoning is a standard method of measuring retail premises to calculate and compare their value. It is used by both public and private sector surveyors. There are different methods to do the subdivision. Shop or retail premises are divided into a number of zones each of a depth of 6.1 metres - or 20 feet. Accordingly in this study when zoning is

done, through the professional experience and knowledge, the land was divided into five zones where the lands fronting main road claim higher values and lesser values per perch for the rear plots.

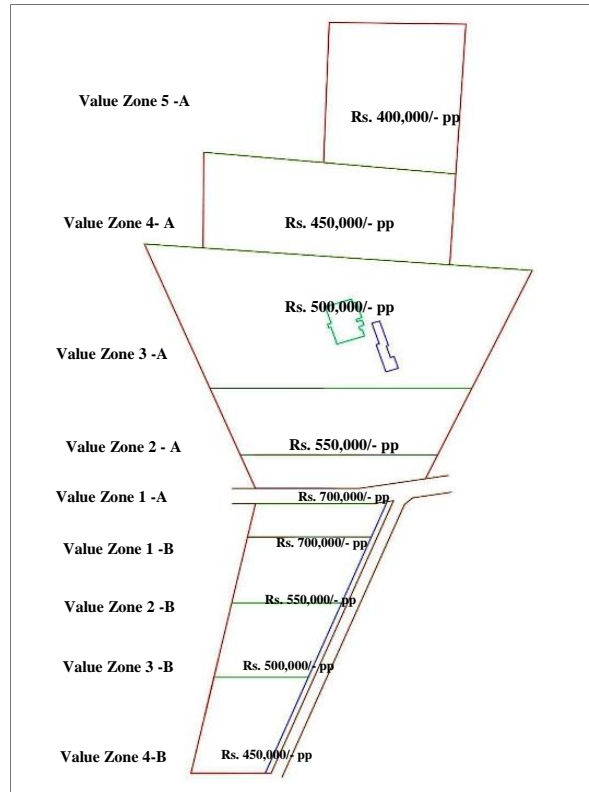


Figure 03: Zoning of the Land as per Perch Value

Developing a Notional Sub-Division

In order to subdivide the land into tracts with equal values, it is needed to estimate the total Market Value of the land. According to Leelananda (2012), notional subdivision plan was developed by considering all the planning and development regulations imposed by the UDA. Open space, road lengths & widths, tuning circles, no of plots were done accordingly. Further, the entire land was subdivided into 113 plots with extents ranging from 8P to 15P.

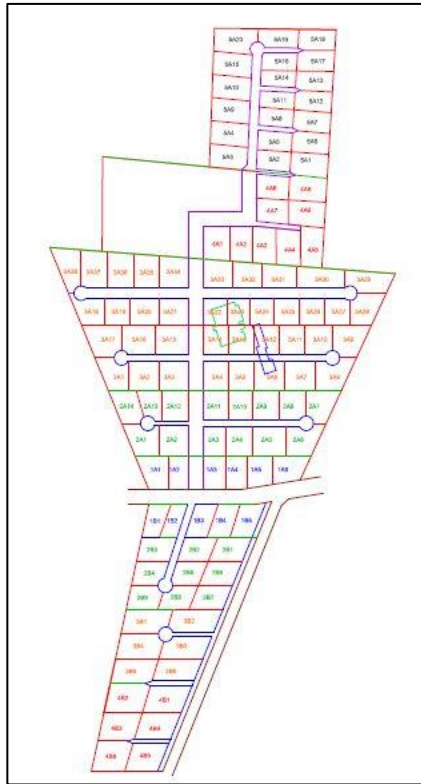


Figure 04: Map of the Notional Subdivision

Determining the Market Value of the Land

Adopting per perch value in each zone, the Total Market Value of the land was estimated as Rs. 733.3 million. Moreover, share value per party was calculated as follows,

Table 1: Calculation of per share value

		Rs.
Market Value of the Land		733.3 mil
Total Extent of Saleable Lots	1459.15P	
Total Extent of Roads-13%	249.29P	
Open Space	<u>164.66P</u>	
Total Extent of land	1873.10	
Add- Value of Open Space 44,168.07 sq.ft X 1,652.89 per sq.ft (162.23 P X Rs. 450,000/-)		<u>73 mil</u>
Total Value of the Land		806.3 mil
Deduct- Cost of development , developers profit and time value of money – 37%		<u>298.3 mil</u>
Market Value of the Land		508 mil
No. of parties involved	04	
Share per party (Rs. 508 /04)		127 mil

Adapting a per Sqft Rate

With the intention of calculating the amount of share in each zone for each party, per sqft rate was adapted. This was calculated by dividing total zone value by the extent of the zone.

Table 2: Calculated per sqft value of each zone

Average rate per sq.ft.			
	A	B	Average
Zone 01	2,361.35	2,205.68	2,290.74
Zone 02	1,716.84	1,735.16	1,723.75
Zone 03	1,481.11	1,573.73	1,495.54
Zone 04	1,422.37	1,506.54	1,442.51
Zone 05	1,353.93		1,353.93
Average			1,562.49

The Preliminary Option of Subdivision

This has been basically determined by considering the concerns of the parties involved in this case and GDV of lots to allocate the spatial arrangement and to determine the cost of development.

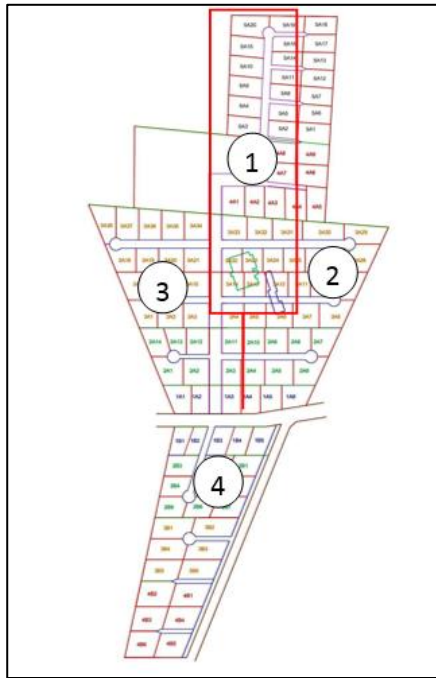


Figure 05: Initial Arrangement of the Subdivision

Calculation of Share Value of Each Party

The cost of development has been estimated based on the shape, topography, location of the land and degree of improvement required for residential use.

Table 03: Calculation of per share value with development costs

	Party 01	Party 02	Party 03	Party 04	Total
Market Value (million)	127	127	127	127	508
Cost of development, developers profit and time value of money	0.4	0.35	0.35	0.378	0.37
% of net value	0.6	0.65	0.65	0.622	0.63
GDV (million)	211.7	195.4	195.4	204.8	806.6

Proposed Sub-Division Model

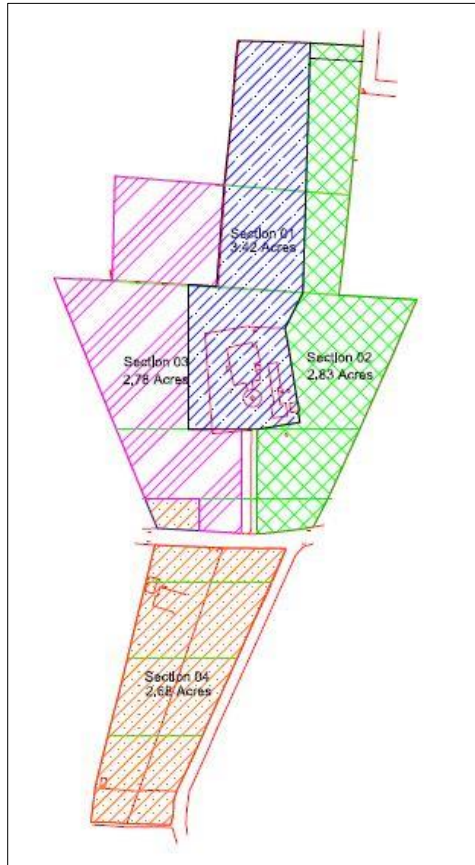


Figure 06: The Proposed Value-based Subdivision Model

Allocation of Land Value out of Each Zone to each Party

The following model has been used for the calculation of allocated share value per party.

$$V = \sum [(E_i \times R_i \dots + E_n \times R_n) + (X_i \times Z_i \dots + X_n \times Z_n) \times 1 - C]$$

V= Value of the land section allocated for the relevant party

E= Allocated extent in Section “A”

X = Allocated extent in Section “B”

R= Average rate per sqft in Section “A”

Z = Average rate per sqft in Section “B”

C = Percentage of Cost of development, developers profit and time value of money

$$i = \text{Zone}$$

$$n = n^{\text{th}} \text{ Zone}$$

The method of calculating the share amount Party 01 is mentioned below. Similarly, the other party share values were calculated using the per sqft rate as per the above model.

Table 04: Calculation of per share value using per sqft rate

Party 01				
	Extent	Average rate per sqft- Rs.		Value- Rs. (million)
		A	B	
Zone 01		2624.00	2205.68	-
Zone 02		1850.22	1735.16	-
Zone 03	44,809.70 sq.ft (164.5 P)	1481.11	1573.73	66.4
Zone 04	60,865.95 sq.ft (223.6 P)	1422.37	1506.54	86.6
Zone 05	43,366.56 sq.ft (159.3 P)	1353.93		58.6
	149,042.21 sq.ft (547.40 P) (3.42 A)		GDV	211.6
	Cost of development , developers profit and time value of money - 40%			84.7
	MV/NDV			127

As per the above model value given for Party 01 is calculated as follows.

$$\begin{aligned}
 V &= \sum [(E_i \times R_i \dots + E_n \times R_n) + (X_i \times Z_i \dots + X_n \times Z_n) \times 1 - C] \\
 V &= \sum [(44,809.7 \times 1481.11 + 60,865.95 \times 1422.37 + 43,366.56 \times 1353.93) + \\
 &\quad (0 \times 0) \times 1 - 0.4] \\
 &= \underline{\underline{\text{Rs. 127 million}}}
 \end{aligned}$$

Findings and Final Outcome

Table 05: Summary of the Calculation of the values

		Party 01	Party 02	Party 03	Party 04		
		Side A	Side A	Side A	Side A	Side B	Total
Zone 01 700,000 /-	Sqft		7,722	5,393	5,639	17,301	36,055
	Perches		28.36	19.81	20.71	63.55	132.44
	Value		20.2	14.1	52.9		
Zone 02 550,000 /-	Sqft		23,002	29,538		34,292	86,832
	Perches		84.49	108.50		125.96	318.94
	Value		42.5	54.6		59.5	
Zone 03 500,000 /-	Sqft	44,809	49,162	58,246		30,264	194,175
	Perches	164.5	180.58	213.95		111.17	713.22
	Value	66.3	72.8	86.2		47.6	
Zone 04 450,000 /-	Sqft	60,865	15,517	28,316		29,099	121,624
	Perches	223.6	57	104.01		106.89	446.74
	Value	86.6	22.1	40.3		43.8	
Zone 05 400,000/-	Sqft	43,366	27,820				71,187
	Perches	159.3	102.19				261.48
	Value	58.7	37.7				
	Total	211.6	195.4	195.3	203.9		
	Cost	40%	35%	35%	37.8%		
		84.6	68.4	68.4	77.1		
	Value	127	127	127			
	Acres	3.42	2.83	2.78	2.68		
		Extent divided to parties (Perches)					1,872.82
		Extent of road (Perches)					22.65
		Total (Perches)					1,895.47

With reference to the above table, total value of the land was subdivided among the co-owners with dissimilar extents and the final subdivision model is as follows.

Conclusion and Recommendation

It can be concluded that the partition of undivided land among co-owners must ensure that each party must be received plot with equal value as against the entirety therefore it must be focused on value based partition rather than the extent based. To get value based partition, a professional valuer involvement is a must in the process of land partition. Therefore it is recommended to get involved a professional valuer in the process of land partition to overcome disadvantages of traditional land subdivision and partition methods while certifying complete contentment of the co-owners involved.

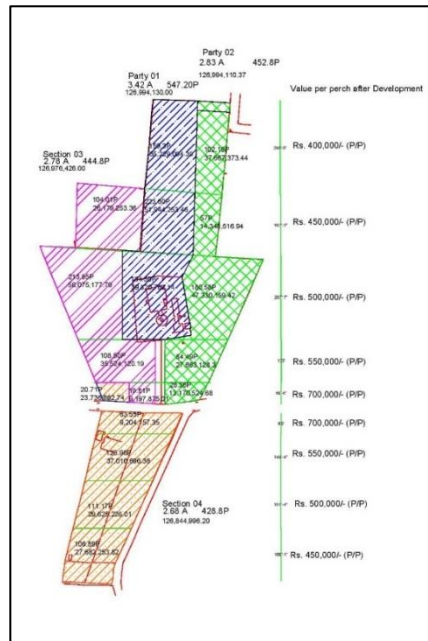


Figure 07: Final Value-based Land Sub-division Model

Limitations

When deciding the location of each section, the preferences of the co-owners had to be considered as there were some existing improvements on the land which were occupied by the co-owners. Hence, the sub-division process was confined as per their requirements. Otherwise, the arrangement of the sections could be different and more effective.

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Association between Property Rights and Tenure Security of Irrigated Lands in Sri Lanka

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Abstract

Property rights to land have been long identified as prerequisites to economic development. The rights need to be secure; hence the risk of any loss that might arise through legal context or the possible expropriation is minimized. Formalizing property rights through the issuance of state guaranteed titles is widely debated in recent literature. Scholars discussed that guaranteed property rights to land increase the security in tenure and positively acts on land productivity. Non-secured land rights due to non-availability of valid legal title to land holdings is a rising issue in the low lands of irrigated settlements in Sri Lanka. Irrigated agriculture is considered as one of the principal beneficiaries of public sector investments in agriculture in the country. Absence of secured rights leads to insecurity in land tenure. This study focuses to identify the associated difference between the property rights and the tenure security of irrigated lands in selected settlements in Anuradhapura District of Sri Lanka. The perceptions on property rights were gathered using a structured questionnaire from 935 farmers operating 1230 plots of low lands in Anuradhapura district. The rights were identified under two main categories and the two types of tenure groups were considered. The results reveal that the majority of farmers do not enjoy the full property rights. The chi-square value represents that there is a significant difference between the aggregated property rights and the two types of tenure groups. Measures to ensure property rights in irrigated settlements are required to secure the tenure in irrigated lands.

Keywords: Property Rights, Land Tenure, Land Title, Low Lands, Land Settlements

Introduction

In the recent policy arena, securing property rights is a 'hot issue' especially in the field of social sciences. Economic advisors emphasize the existence of property rights as a solution to confer ownership over a resource (Perkins, 2001). Property rights are defined as 'a set of activities and behaviors that the possessor may not be preventing undertaking, in relation to a benefit stream' (Bromley, 1991). The power to exercise over a land resource is assigned by rules and regulations and is governed by set of policies. Rights to land shape the security of tenure and security of tenure is the certainty that a person's rights to land will be recognized by others and protected in challenges. Secured tenure in turn induces the farmers'

decision on investment and influence on productivity. Therefore, property rights to land act as a crucial factor in promoting productivity in agrarian societies. The non-secured land rights due to non-availability of valid legal title to land holdings is a rising phenomenon in the irrigated settlements in Sri Lanka. Initiation of the irrigated settlement in the Dry Zone of Sri Lanka is a land alienation strategy introduced by the government during the period of 1930's with a view to protect the landless peasantry in the country. Farmers were granted with equal sized low lands and the security was provided with unitary land rights prescribed over the use and succession through the Land Development Ordinance (LDO) No 19 of 1935. Subsequently, the initial allocation was distributed informally among the second and third generation farmers whereas the property rights to land are varied. There is inadequate evidence on the farmers' perceptions of property rights and the associated influence on security of tenure in irrigated settlements in Sri Lanka. This paper focuses on the association of the perceptions on property rights on tenure security.

Literature review

There is a vast amount of literature that developed on property rights and the effects of tenure security on economic development. The following findings indicate that how strong the rights. Besly (1995) identified lack of titles to land limit the transferability of the land parcel in Ghana. The associated protected property rights in China affect the production behavior of the farmer (Li et.al.,1998). The paper emphasize that the right to use the land for long periods of time encourages the use of savings on land investments. Similar thoughts discusses Fabusoro et.al., (2007), that the householders in Fulnai in Nigeria require secured rights to pave the access to land that guarantees the sustainable livelihoods. Hogas, (2012) presents the same view in Mozambique, that the household's perception of tenure security as per the rights they held contributed to enhance long-term related investment in soil conservation. Simbizi et al. (2014) pointed that insecurity may arise because of the non-recognitions of land rights by a formal institute in a country.

Methods

Data gathered from 935 farmers operating on 1230 plots in three selected irrigated settlements in Anuradhapura district. Perception of farmers were separately collected in relation to the two types of property rights derived as 'use rights' and 'transfer rights' discussed in the literature as the sticks attach to the bundle of rights (Bromley,1991; Besly ,1995; Brasselle et.al., 2002; Markussen et.al., 2010). A self-administered questionnaire was utilized to collect data and aggregated as total

property rights for the purpose of data analysis. Two main types of tenure groups as secure and insecure were identified using an objective indicator. Those who had a legal document to prove the tenure was treated as the secured group while others were categorized as insecure. The following hypothesis was tested in order to identify the existence of any differences between tenure arrangements, and perceived property rights.

H₀: There are no differences of the perceptions on total rights among the tenure groups

H₁: there are differences of the perceptions on total rights among the tenure groups

Results and discussions

The descriptive statistics shows that only 35% of the plots have a valid legal document and the balance operate their lands without any document. The most widespread perception is that almost 70% of the farmers believe they can enjoy the use rights which is considered in the literature as weak rights and only 30% perceived that they enjoy the transfer rights which is considered as superior rights. The Kruskal-Wallis Test results reveal the chi-square value is 576.88 and is significant at 1% level. Thus the null hypothesis is rejected and there is a significant difference in the perceptions between the tenure groups. The Mean Rank results indicate that only the secured tenure group perceives they are enjoying the superior rights.

Conclusion

The results proves that farmers with a state guaranteed title to land only perceives positively on property rights while others do not. The significant difference between the two groups shows the weakness inherent in the policy.

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Corporate Real Estate Strategic Planning Model to Enhance the Present CREAM Practices of Colombo Municipal Council

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Abstract

Corporate Real Estate (CRE) is an integral part of any organization concerned with business or other-wise, as they extend the support in the overall management process of corporate assets employed to perform its business successfully. The capital pledges to corporate real estate generally yield a lower return whereas the identical capital deployed to alternative business drive. This phenomenon signifies the prominence of a proper real estate management system to ensure the maximum return from the organization's assets. A research was performed on twelve pre-selected properties owned and managed by the Colombo Municipal Council (CMC) to identify the existing issues allied to Corporate Real Estate Asset Management (CREAM) of the Municipality with a view to support its core-business. Base-line information was collected from primary and secondary sources as well as physical inspections and stakeholders consultation and the valuation was performed using the SWOT analysis to develop a suitable strategic level model consistent with the goal and objectives of CMC, to overcome the issues emerged from the areas of administration and management, space management, property maintenance methods and sustainability. The requirement of a formation of a separate department for CREAM, maintenance of an up-to-date data-base for real estate, the need of delegation of authority to responsible executives and formation of a proper monitoring and evaluation system were found as crucial areas to be addressed for the efficient management of CRE belongs to CMC. Moreover, it was observed that a careful attention to be drawn on space and labour/workforce management, insufficiency of parking facilities, poor maintenance of properties, waste of public utilities and amenities and irregular garbage disposal systems are some of the critical areas for which the public representatives and administrators of CMC to be vigilant. Allocating both financial and human resources for efficient management of CRE to deliver better services to the ratepayers at their expense is not a left-over as it will ensure an appreciable and continuous service to the end users.

Keywords: Corporate Real Estate, Corporate Real Estate Assets Management, Colombo Municipal Council, Space Management, SWOT Analysis, Resource efficiency

Introduction

The purpose of this study is to provide an overview to the overall administration and management set up including its functions, giving an insight to the strategies that the Colombo Municipal Council (CMC) has currently adopted for managing its Real Estate Assets (REA) and as to how the CMC supposed to be effectively and efficiently manage its REA over coming years. The Proposed model contained in this paper is an innovative approach to provide guidelines and the basis on which the municipality owned and managed real estate properties appears to be overlooked, underutilized or neglected by the management, to utilize them as a central resource blend with other possessions to support and improve its core business while setting priorities and ensuring that the corporate real estate objectives are achieved.

CMC is the local authority exercising the administrative and executive power for Colombo, the largest city and financial center in Western Province, Sri Lanka. Comprehensive analyses were conducted to support identifying the challenges faced by the CMC at present, such as addressing the existing issues related to the REA controlled under the administration of the CMC, and the needs of the future, such as ensuring the Municipality has a dynamic, educated and connected workforce with reliable and strong strategies. This RESP will guide the municipality, its workforce, its programs and employees to make certain the municipality maintains a workforce equal to the challenges created by a fluid and ever changing market place and global fluctuations while ensuring that the CMC's mission is carried out to the fullest. In order to recognize the existing issues related to the Municipal real estate's maintenance and management, several properties owned by the Municipality were inspected to gather relevant information and data. These activities to be implemented through the proposed strategy will result in residents or public of CMC receiving the protections and service they expect and deserve from a premier regulatory agency.

Literature Review

Each and Every corporate organization has real estate assets which are used for the support of the overall process and the assets of the business organization.

Corporate Real Estate (CRE)

As Laws (2007) says, real estate assets of the business as one of the largest non-staff cost in most organization are known as corporate real estate (CRE) and they had a historic reputation for being considered just as an unavailable cost of

operation. However CRE is an important component for the corporation of the organization.

In line with the most of the organization for business premises, property is described as an essential factor of production (Hwa, 2003). Moreover, as per Seiler et al. (2001) explains that why many corporations own a significant amount of real assets which includes real estate. After the identification of the importance they should be managed properly to get the maximum return out of CRE.

Corporate Real Estate Assets Management (CREAM)

CREAM is defined by Liow and Ooi (2002) as the management which is concerned with the management of land and buildings owned by companies not primarily in the real estate business. CREAM is essential as it assets to the capacity as the earning of the organization indirectly. However according to Lineman (1998) in spite of the huge sum for the acquisition of this important resource of an organization, capital commitment to corporate real estate generally yield a lower return than the same capital commitment to alternative business uses. The reason for this situation was discussed by several authors. Corporate real estate assets (CREA) are not accorded the required attention by business managers relative to the concentration on other aspects of the business. (Oladokun, 2010) As an example, he states UK business has been found to often throws away £ 18 billion a year through inefficient use of property. Cutting this out would however improve gross trading profits by up to 13% (Laws adapted from RICS 2002).

However with the dynamic world, the important of proper management of this CRE has emerged. Corporate Real Estate Assets should be viewed as a strategic asset that can impact corporate performance (Oladokun, 2010). There are indications that specially American and British companies are beginning to re-evaluate their policies of neglecting of property assets (Avis et al. 1993, and Joroff, Louargand, Lambert and Becker, 1993).

The identification of the importance of CREAM by the management is essential in order to get the maximum return from CRE.

Having realized the significance of real estate as strategic assets, companies are now taking proactive approaches for the management of real estate by introducing strategic real estate plan as a supplementary plan for the main strategic plan. Through such plans organizations can achieve many benefits such as,

- Increase shareholder's value.

- Optimum return from existing and future real estates.
- Move only highly disadvantages real estate from the property portfolio.
- Realize correct amount of tax, insurance and other service expenses.
- Increase liquidity.
- Raise capital for future purchases of property.
- Divert real estate assets to core business.
- Organization will have more competitive position among rival.
- Total value of the business is increased.
-

Sri Lankan Context

The extent and value of commercial real estate assets held by non- real estate organizations all over the country has increased in the recent past. Even if a mass of real estate is held, a larger percentage of the real estate in their asset base is not visible to the public or management of such firms. Wedamulla (2006) noted that;

*“In par with most other countries, it look that non real estate organization own much more property assets than the real estate organization in Sri Lanka. The general understanding is that Sri Lanka Railways, the Ports Authority, Road Development Authority, and **Colombo Municipal Council** are among a few property rich non real estate organizations in the public sector. Sri Lanka Telecom too was a government establishment which held a large amount of property assets scattered throughout the country. Today it is a public quoted company”*

Hence, it can be concluded that CMC is a major non real estate organization which owns a considerable amount of property assets in Sri Lanka and the necessity of a proper management system is needed for the maximization of their return in order to ensure that they are used completely for the support of its overall process and the assets.

Methodology

The purpose of this report is to identify the existing issues of the properties owned and administrated by the CMC and develop a strategic planning model providing guidelines to the actions which should be taken to resolve those issues and maximize the performance and contribution of the real estate assets to the CMC's core businesses. The methodology adopted for this study has four main phases. First of all, several CMC owned and administrated properties were randomly selected in order to review the existing asset management practices in

general. Under each phase, followings activities were performed using the selected properties.

Table 2: Phases of the Methodology

Phase I	<ul style="list-style-type: none"> • Review Municipal Council Ordinance No. 16 of 1947 • Review governing policies, rules and regulations of CMC • Study administration and management set-up of CMC from Annual Reports. • Review revenue base and expenditure pattern of CMC from budget Report. • Initial discussions by meeting heads of CMC Departments. • Review existing asset management practices of the Asset Management Department. • Analysis of existing authority (status regarding policies) that govern the management of its real estate properties.
Phase II	<ul style="list-style-type: none"> • Work out a Brief summary on previous review. • Analysis of leading enterprise resource planning solution to work as a viable solution for the management of CMCs' real estate assets.
Phase III	<ul style="list-style-type: none"> • Develop a Model to recommend the best practices and methodology base on the findings.
Phase IV	<ul style="list-style-type: none"> • Prepare a scientific report (RESP) for submission to the CMC with the recommended changes to improve current process and maximize efficiency and productivity of the real estate assets owned by CMC.

Data Collection and Analysis Method

In order to develop a strategic plan, firstly reliable data were collected using both primary and secondary sources. Then the properties were inspected for physical verifications and primary data were collected from the employees and officers. After completing the first phase, throughout the remaining phases, reviewing and analyzing of leading enterprise resource planning solutions were done with the intension of working as a viable solution for the management of the real estate assets of those properties by developing a model. After the data collection, the next stride was analyzing the data collected from the properties. The analysis tool used was SWOT analysis. Through this analysis, the existing main issues related to their real estate assets which should be addressed properly and promptly by the CMC yet haven't paid any attention before were identified. Next, it was hoped to give some practical solutions ad recommendations to the CMC with a strategic planning model which can be implemented and practiced to manage those properties well and to increase their performances.

Using the collected data, the following SWOT analysis was done. It is a collective analysis which was done by an overall analysis of the individual SWOT analyses of the selected properties.

Case Study Area

Colombo Municipal Council (CMC) is the local authority exercising the Administrative and Executive power for Colombo, the largest city and financial center in western province, Sri Lanka. This is the largest and oldest local government in Sri Lanka which operates since 1865. It comprises two divisional secretariats namely Colombo and Thimbirigasyaya. The total land area covered by the CMC is 3712.28ha. Its management is mainly conducted by the mayor and also there is an appointed Deputy Mayor intended for the recovery of the mayor's responsibilities at his absence. The Chief Executive Officer of the CMC is the Municipal Commissioner. Municipal Commissioner is responsible for the administration and management of the CMC. The council has 53 elected representative members for the same number of Wards and currently over 12,000 employees are working in all the CMC related offices and properties. Total number of properties owned & maintained by Colombo Municipal Council is 253 and they can be seen under below categories.

Table 01: Total number of properties owned & maintained by CMC

Type of Property	No. of Properties
Community Centers	58
Reception Hall	32
Children's Park	36
Play Grounds – Large/ Small	37
Swimming Pools	01
Sport Complex	01
Stadium	01
Children welfare Centers	13
Homes for elders and Children's	02
Public Markets	20
Fire Service centers	03
Libraries	16
Vocational Training Centers	16
Pre Schools	17
Total	253

Findings

Out of several hundreds of real estate properties owned by the CMC twelve properties listed in Table 3 below was randomly selected for this study purpose. Although a comprehensive study was done, some details related to income and expenditure of those properties were not reachable as there were no proper systems available to record them and update regularly. It is also identified as another limitation of management in these properties.

Table 3: Details of CMC Properties Randomly Selected for the Study

01	Colombo Public Library	No.15, Sir Marcus Fernando Mawatha, Colombo 07.	02A 02R 00P	Public Service	105	Reading Room, the Lending Room & the Reference Library	Membership fee, fine charges, auditorium hiring	8,550,000	113,070,000	80	Good
02	Bertram Rodrigo memorial Reception Hall and children play ground	No: 57, Jawatte Road, Torrington Avenue, Thimbrigasyaya.	00A 00R 55 P	Public and Commercial	-	Reception Hall and play ground	Reception Hall Hiring	-	-	12	Poor
03	Havelock Park	Park Road, Colombo 05.	-	Commercial use	-	Park	-	880,000	-	-	Good
04	Kirulapone Public Market	Pamankada East, Colombo 05.	01A 01R 20P	Commercial use	-	Fruit and Vegetables, Multi items, Retail items, Groceries, Coconuts, Fish, Meat, Gram shop, Glass items, Leather items and Dry fish stalls	Rent	-	553,000	-	Fair
05	Lalith Athulathmudali Playground	Mahinda Mawatha, Kirulapana Colombo 06.	00A 01R 30 P	Public Service	7	Playground	-	-	48,000	14	Poor
06	Leslie Ranagalla Reception Hall	Magazine road, Borella.	00A 01R	Public and Commercial	-	community center, Reception	Hall hiring	-	-	-	Fair

	and Community Center		00P			Hall,					
07	Mariyakade Market	Deans Road, Maradana	01A 00R 00P	Commercial	5	vegetable, fish and meat	Rent	-	1,200,000	27	Poor
08	Public library - Borella	No 170, Seewali lane, Borella.	-	Public Service	-	Library	Library membership fees, fines	-	-	16	Fair
09	Tower Hall Theater	Panchikawatta Road, Colombo 10.	-	Commercial use	-	Theatre	Hiring	-	-	-	Good
10	Viharamahadevi Recreational Park, Colombo	Colombo 07	-	Public Service	-	Park	Photo shoot, Open theatre hiring	-	-	-	Good
11	Wellawatte Municipal market complex	No: 231//2, Galle road, Pamankada west, Wellawatta.	00 A 01R 18P	Commercial use	-	Vegetables, fruits, fish and meat stalls	Rent	-	-	-	Fair
12	Western dispensary	No.05, Robert Gunawardene Mawatha, Kirillopone	-	Public Service	-	Dispensary	Rent	-	9,300,000	-	Fair

Identified issues

After the observation of the sites/ selected properties and collection of data from the relevant officers, through SWOT analyses, the followings were identified as major issues faced by the properties of CMC.

- Several Properties are underutilized due to ***lack of space management practices*** while some properties are at vacant position.
- The majority of the equipment and fittings are damaged and ruined due to ***poor maintenance***.
- Limited facilities such as canteens, toilets, parking spaces discourage consumers as well as prospective tenants.
- The ***income*** generating methods are not efficient and effective.
- Current ***income*** collection methods, documentation and management system have no sufficient capacity to eliminate frauds and errors of income collection.
- ***Income*** collection procedure do not motivate towards onetime payments.
- Regularized cleaning plan can't be identified in majority of properties and ***maintenance*** activities are not implemented on time
- Power of major repairs centralized to ***maintenance*** department of CMC. Thus some reparse are not done at the required time.
- ***Management cost*** of several properties is high as it is outsourced.
- ***Management*** did not consider public safety of properties and there is no any practice to ensure public safety for a particular time basis. Fire alarm security systems, Emergency exits, Security systems and other precautions are not available or not maintained properly in most of properties.
- Although Several Properties have higher capacity to generate ***income*** they do not generate income because of poor management and inefficient uses.
- Promotional methods, frequency of promotion and marketing strategies are not sufficient to face ***competition*** of real estate market.

Strategic Planning Model

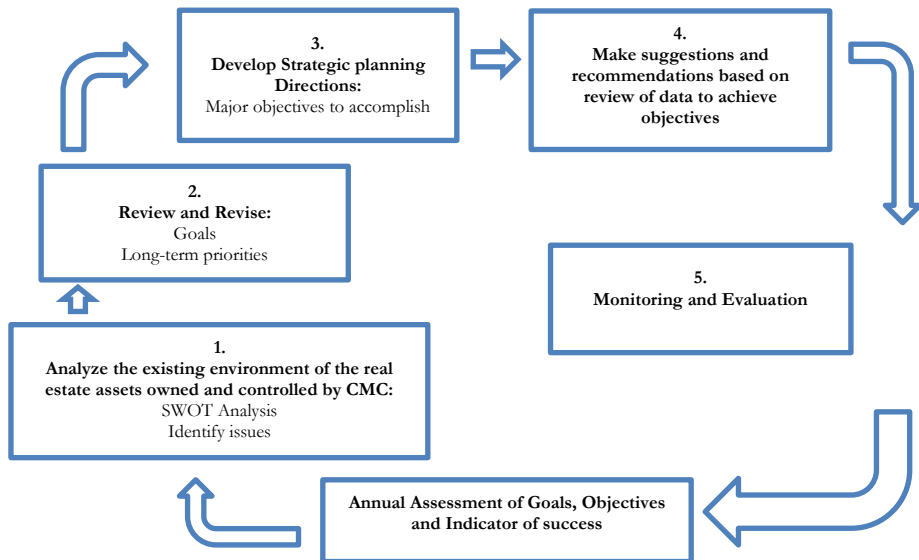


Figure 01: Proposed Strategic Planning Model

There is no one perfect strategic planning process, or model, to use the same way all the time with every organization. Each organization should customize the best approach to suit the culture of its members, the current situation in and around the organization, and the purpose of its planning. During the data collection and analysis, several major issues related to real estate assets have been identified to be addressed. Among those identified issues, the most significance and focused issues are identified under the following areas:

- Administration and management malpractices
- Lack of space management practices
- Poor property maintenance
- Increasing structural obsolescence
- Lack of sustainability actions
- Lack of using innovative ideas and other up-to-date techniques

Strategic Goal

To review and analyze the existing situation of CREAM practices in CMC and provide guidelines to utilize them as a central resource blend with other possessions to support and improve its core business while setting priorities and ensuring that the corporate real estate objectives are achieved.

Strategic Objectives

With the intention of achieving the above mentioned goal and resolving identified issues, following objectives are formulated.

- Identify issues arising from administration and management malpractices and provide with the recommendations and suggestions in order to increase the productivity of the real estate assets by resolving the existing issues.
- Identify the methods to improve space management practices.
- Establish proper property maintenance methods.
- Suggest better sustainability actions to improve natural resource management.

SWOT Analysis

Table 4: SWOT Analysis

<i>Strengths</i>	<ul style="list-style-type: none"> • Availability of infrastructure facilities like electricity, clear access, sanitary facilities, water etc. • Majority of Buildings are finished with modern equipment
<i>Weaknesses</i>	<ul style="list-style-type: none"> • Majority of properties are underutilized • Not well maintained and therefore most of the equipment and fittings are damaged or inoperative • Parking space is not enough. • Control of maintenance is highly centralized to CMC • Uses, interfaces, revenue collection methods and management practices of properties are outdated • Weak precautions of system to eliminate frauds on income collection of properties. • Lack of public safety ensuring systems.
<i>Opportunities</i>	<ul style="list-style-type: none"> • Have higher accessibility • Situated in prime place in country (Within Colombo CMC area) • Available high demand for reception halls, recreational activities, shopping malls and other public properties. • Developing neighborhood with huge developing activities such as Port city, Shangri-La, One-Gall Face etc. • Rising land prices and rentals or the area
<i>Threats</i>	<ul style="list-style-type: none"> • Higher competition of the real estate market • More strong competitors with key brands • Unavailability of flexible interfaces of management

	• Mismatched uses with the current market conditions
	• Effects of Political and other interferences for the decision making process regarding properties
	• Inefficient management structure of CMC

Conclusion and Suggestions

According to the findings identified through the collected data and the SWOT Analysis, followings are suggested as recommendations. Here, the main issue arising areas are identified as Administration and Management, Space Management, Property maintenance methods and Sustainability.

Recommended Suggestions

Improve Administration and Management practices

In order to mitigate limitations in administration and management practices of corporate real estate, a formal department should be created to manage real estate assets of the municipality with separate Real Estate Development and Valuation Section (REDV), engineering section and technical support section.

Moreover, a computerized database should be developed including all the details of properties of the municipality. As it is identified by the study, most of the information related to these properties are inaccessible or unavailable including details regarding income and expenditure. There is no proper way to record those information in most of these properties. Hence, formation of a proper database and regular update are needed.

Regular evaluation and monitoring system should be formulated to check whether the strategies are being implemented and the results are achieved as expected in order to make the improvements to the system.

Improve Space Management

Effectiveness and efficiency of internal space management of properties must be reviewed and improved periodically. Properties should be studied properly and optimum usage of those properties should be decided to improve the common interest. Establishing more parking facilities is essential. Establishing merry-go-round parking facility would be a good option as it requires lesser area and easy to maintain and provide safety as well.

Establish proper property maintenance methods

A separate maintenance unit or group of specialized employees should be employed for each property for proper maintenance of them. It is beneficial for the property to carry out appreciable and continuous service. Continuous inspections of buildings should be done to see whether there are any damages and make immediate action to repair them.

Sustainability Actions

Street lighting, the lighting of CMC building and public parks & recreational parks should be done using natural energy systems (for instance: solar power). Actions should be taken to minimize the higher water usage by using new technologies. Provide staff and financial resources to track water use, maintain equipment, and implement cost-effective water use reduction should be done. Establishing a long-term solution for solid waste (garbage disposal) problem.

With the actions taken for the suggested recommendations, the effectiveness and the efficiency of the CRE utilization can be improved. That won't be a waste of time and money as it is beneficial for the property to carry out appreciable and continuous service. By adopting a proper CREAM system the identified issues can be solved and arising further issues related to those areas can be mitigated. Finally, the main purpose of achieving the maximum return level from the CRE can be accomplished through the formulated CREAM model.

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Towards Sustainable Constructions: Trends in Sri Lankan Construction Industry - A Review

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Abstract

Construction industry is one of the most significant industries that contributes toward the socio-economic growth especially to developing countries. However, in the developing countries the construction industry always faces problems and challenges, because the earth's resources are under severe due to increase in population and economic expansion. Especially, Construction activities have significant impacts on the environment. The extensive use of natural resources and energy, pollution of air, land, soils and water resources are some examples of the impact to environment from construction industry. There has been an increasing concern over the impacts of construction activity on the environment and sufficient measures have not been taken to mitigate them. But the traditional practices of the construction process fail to control the current challenges occur in construction industry. Therefore sustainable construction has become a central for countries worldwide now a day; which aims to minimize natural resource consumption and the resulting impact on ecological systems. Sustainable construction represents the responsibility of the construction industry towards sustainable development. This paper reviews the challenges and potentials face by construction industries all over the world, Sustainable Construction Practices and importance of Sustainable Construction Practices to Sustainable Development of Sri Lanka. Also this review contributes to sustainability thinking in Sri Lankan construction industry for a better future.

Keywords: Construction Industry, Sustainable Construction, Sustainable Development

Introduction

Sustainable construction is a new concept for the construction industry for achieving sustainable development from the various environmental, social-economics and cultural facets. It has become a focal point for countries worldwide, as the earth's resources are under severe pressure due to increase in population and economic expansion. As a result of this, most nations are

striving to implement sustainable construction practices in their various construction Industries (Ametepey et al., 2015). Traditional construction practices focuses on cost minimization, performance and quality objectives only, but sustainable construction practices also focuses to minimization of resource depletion, minimization of environment degradation and creating a healthy built environment (Hussin et al., 2013).

The development of the Sri Lankan construction industry has closely followed the economic changes during the past decade. The economic conditions were the main factors, which influenced demand and supply trends in the construction industry. The construction sector has seen to be the primary beneficiary with the blooming of many new infrastructure projects that serves the rapid urban development. Therefore the construction industry is a vital sector in the Sri Lankan economy and it is 4th largest sector, contributing 6-7% to GDP over past decade in Sri Lanka.

The review contributes to sustainability thinking in the Sri Lankan construction industry; identify barriers and limitation as well as it is recommended that strategies and actions which follow to create a sustainable development of the country. It reviews recent research into the development of sustainable construction and examines the literature related to the issues of sustainable construction and limitations.

Sri Lankan Construction Industry

The construction industry plays a vital role in the Sri Lankan economy. The construction sector of produces a wide range of products, from individual houses to major infrastructure such as roads, power plants and petrochemical complexes etc. The Sri Lankan construction industry is on an upward trend, due to the post-conflict scenario in the country. The end of the island's ethnic war in 2009 has revived the economic activity and resulted in an infrastructure building boom. Significant reconstruction activities are expected to be undertaken in the North and the East of the country. The other regions of the country are also expected to see significant development activities (ICRA Lanka, 2011).

According to the Central Bank Report (2016), Sri Lankan Construction Industry contributes 7.6% to Gross Domestic Product (GDP) and the value added of construction activities rebounded during the year recording a substantial growth of 14.9 per cent in 2016 recovering from 2.7 per cent contraction recorded in 2015. GDP from Construction in Sri Lanka decreased to 197,182 LKR Million in the first quarter of 2017 from 200,970

LKR Million in the fourth quarter of 2016. GDP From Construction in Sri Lanka averaged 133,568.86 LKR Million from 2010 until 2017, reaching an all-time high of 200,970 LKR Million in the fourth quarter of 2016 and a record low of 77,176 LKR Million in the second quarter of 2010 (Trading Economics, 2017).

Figure 1: Sri Lankan GDP from Construction 2010 Jan - 2017 Jan



Source: Department of Census and Statistics Sri Lanka, 2017

According to the Department of Census & Statistics (2017), currently employed person by Construction, Electricity, gas, steam and air conditioning supply, Water supply, sewerage, waste management and remediation activities are 684,970 in 1st Quarter of 2017.

New trends in Sri Lankan real estate sector are the major factor that affects the development of construction industry in Sri Lanka. Luxury residential trends, office market trends, affordable housing trends, hospitality trends and government's mega infrastructure development projects are directly affect to the construction industry in Sri Lanka now a day.

Sri Lanka's urban population has reverted from its declining trend has resulted in a sharp uptick in the demand for apartments over the last 2 years and the demand is growing despite many apartment projects being initiated. With Sri Lanka launching major development projects such as the Western Region Megapolis project, land prices have started rise significantly beyond affordability levels of the middle income population. This situation has also created additional demand for living in apartments (FC Research, 2016). There are number of luxury, semi-luxury and middle class housing apartment projects like The Emperor, Crescat Residences, Havelock City, the Monarch, Trillium Residences etc. Currently over 3000 units are under

development (Ex: Altair, Shangri-La, Astoria etc.) and these projects are due for completion between 2017-2019 (JLL, 2017).

Also end of the war amidst the rise in tourist arrivals and a sharp increase in hotel projects and shopping mall projects have been initiated as illustrated by the investment into the sector. Therefore Major Hotel & Shopping Mall projects will continue to support construction sector in Sri Lanka. For Example: Shangri-La, ICT Hotels, Cinnamon Life, Grand Hyatt etc. (FC Research, 2016).

There is a significant growth in the office space construction market is likely in the coming years. Sri Lanka's current office space stands at 2.3mn sq ft. while the demand for Grade A office space is estimated to be 3.8mn sq ft. Some of the larger "Grade A office space category" construction projects are already in progress with projects expected to be completed over the next 2 years. Orion Towers, Access towers Phase II, Water front, Cinnamon Life and Shangri-La are the upcoming major office space construction projects in Sri Lanka within next 2 years (FC Research, 2016).

Government Infrastructure Drive is another trend in Sri Lankan construction industry. Numbers of stalled mega development projects are being re-started. Road development projects, water projects, port city and expressway are some of the major Government led construction projects. The Government also has initiated a large number of rural road development projects in North Central Province, a large number of water projects in some of the key districts, Port expansion projects, Airport expansion projects and the creation of a logistics corridor between the port and the airport (FC Research, 2016). Bandaranayke International Airport extensions-stage II, Port City Colombo, The Southern Expressway Matara to Hambantota, The Central Expressway, Light metro system, Electrifying of Railway are the ongoing key projects in Sri Lanka (JLL, 2017).

Western Region Megapolis is an urban planning, zoning, and development project aimed at creating a planned Megapolis in Sri Lanka's Western Province by 2030. Government has initiated USD 44 Billion with the aim of developing special zones within the Western Region and providing the required infrastructure to develop the zones, through 142 identified projects. WRM project has identified 8 specialized zones which are expected to be upgrade and developed. They are Downtown Colombo, Industrial Township in Horana, Science & Technology City in Malabe, Plantation City in Avissawella, Industrial Township in Mirigama, Aero City in Katunayake,

Logistics Corridor between Port City and Aero City and Forest City Mathugama. The development of the identified projects is expected to significantly increase demand for construction and building material across the sector (FC Research, 2017 and JLL, 2017).

Also Construction industry growth was reflected in the significant increase in cement production by 25.3 per cent in 2016 compared to 5.8 per cent growth recorded in 2015. Accordingly, both local productions as well as imports of cement increased substantially by 17.8 per cent and 29.5 per cent, respectively, in 2016. Meanwhile, investment goods and building materials imports volume indices increased by 20.0 per cent and 22.9 per cent, respectively, in 2016 indicating the positive developments in construction activities (Central Bank Report, 2016) .

There are number of stakeholders in Sri Lankan construction industry and they are acting as facilitators of construction demand and supply in the Sri Lanka. Public sector consists with Central government Ministries (Megapolis, Highway and Housing), Departments, Authorities (UDA, NHDA, and CEA), and Provincial Council and Local Government Authorities. Also Architects, Engineers, Quantity Surveyors, Project Managers, Surveyors, Interior Designers, Landscape designers and Planners, Material manufacturers/suppliers/industries (Ex: Cement Industry, Tile Industry, Cable Industry, Aluminums Industry), Financial Institutions, Insurance Organizations, property investment & development companies (Ex: Overseas Realty (Ceylon) PLC, CT Holdings PLC, John Keells Holdings PLC), Construction Companies (Ex: International Construction Consortium (Pvt) Ltd, Maga Engineering, MTD Walkers PLC, Sanken Lanka (Private) Limited, State Engineering Corporation of Sri Lanka (SEC), Sierra Construction (Pvt) Ltd etc.), Investment Promotion Agencies (Ex: Board of Investment (BOI) and Bureau of Infrastructure Investment) , Research & Development organizations (Ex: JLL, ICRA Lanka, FC Researches) Regulatory Bodies (Ex: UDA, CEA, ICTAD), are the major stakeholders in Sri Lanka construction industry. They provide various facilities for construction project implement in all over the country (Rameezdeen, 2006; ICRA Lanka, 2011; JLL, 2013, FC Research, 2016).

However, there are many problems faced by the construction industry in Sri Lanka. High cost of construction material, Lack of availability of funds, Low supply of high grade steel, Lack of skilled workers, Pollution, Delays in land acquisition, Frequent changes in regulations are the key issues of Sri Lankan construction industry (ICRA Lanka, 2011).

Construction industry contributes significantly to most economies in terms of GDP and employment. However, on the other side construction activities have several negative impacts on the society and planet itself these include: carbon emissions; pollution (noise, air, water quality) and waste generation. Therefore, sustainability has become an important agenda on the company's strategic decision making (Afzala et al., 2016). The construction industry is a major consumer of non-renewable resources and sizeable source of waste, a polluter of water and air and a major contributor to landfill. These issues and impacts emanating from construction activities can only be corrected by developing sustainable ways in carrying out construction projects (Aigbavboaa et al., 2016).

Conclusion

Literature suggests numerous factors that are affecting on Sustainable Construction; Traditional construction practices merely focuses on cost minimization, performance and quality objectives only, but sustainable construction practices also focuses to minimization of resource depletion, minimization of environment degradation and creating a healthy built environment. It is obvious that economic development and environment protection are mutually contradicting concepts; high level of attention would be paid on economic development and environment protection. This review could be used as an eye-opener for both policy makers and industry specialists to further improve sustainability performances of the construction industry.

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Study on Pull and Push Travel Motivation Factors Influence on Foreign Tourist's Decision Selecting Negombo as a Destination

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Abstract

Tourism plays a major role in the world economies today. It highly influence to world GDP as well as creation of employment opportunities. Travel motivation is one of the interesting factors of select tourist destination.. Pull and push motivation factors in this region demonstrate distinct behavior within group of foreign travelers. Among the entire factors tropical climate, friendliness of natives, political stability, natural resources of the country and inexpensive travelling experience are the focal points of these motivations. Those factors are common factors in Sri Lanka. In Sri Lanka Negombo is prominent tourist attracted coastal area, which created most, job opportunities in the tourism industry in Sri Lanka. Most of the tourist selected Negombo as their final destination and push and pull motivation factors affected to that. This research paper aims to Study on pull and push travel motivation factors influence on foreign tourist's decision selecting Negombo as their final destination.

Keywords: Pull and Push Factors, Foreign Tourists, Negombo, Convenience Sampling Method

Introduction

Tourism can be introduced as most dynamic and fastest growing industry sector that revamp economies around the world (Goeldner and Ritchie, 2003; WTO). Tourism is playing big role in today's world economy. It has contributed 4% to the world GDP in 2013 and created more than 200 million jobs all over the world (Shantika, 2013) It contributes to the world economy in the firm of world's trade of goods and services and creating immense number of employment opportunities associated with travel and tourism. Meanwhile tourism industry widely influences on numerous service industries including airlines, hospitality services, hotels,

accommodations, transportation services and entertainment and music venues in addition to goods and services purchased by the tourists.

Therefore many researches in different field's psychology, sociology and anthropology have been realized importance of investigating travel motivations (Dann, 1977; Gonath, 1977). There are two dimensions widely held on which tourism motivations are depend on; pull and push factors (Mohammad & Som,2010; Yiamjanya & Wongleedee, 2014) The rationale behind these two factors is people motivated to travel because they are pulled by external motivations and they are pushed by internal motivations. Push factors involve forces which drive people away from the place and pull factors draw them to new place (About Education, 2016) the pull factors Pull factors are emerged due to captivation of traveler's final destination and most of them are tangible and covered by marketing strategy of the destination. Discordantly push factors are intangible and intrinsic to an individual.

Motivation factors drags tourists from their native places considered as push strategies where pull motivation strategies drop them their desired destinations (Dann, 1977). As mentioned above Routine life, exploration, relaxation, social interactions, dignity, relationships enchantments are most driving push factors. Individuals do not get motivations only from physiological push factors. Swarbrooke and Horner (2005) highlighted stream of motivators which encourage person to take a vacation and motivation to take holiday in particular destination. Tourism is not just a matter of all internal factors. It is also driven by the motivators related to tourist's destinations. To attract new and repeat tourists pull factors considered as most significant.

Pull factors are the objects that describe the place which tourists select as their destination. Pull Factors can be categorized as tangible and intangibles; intangibles can be identified because travelling experience variant individual to individual. Framework suggested by Morrison (2013) suggested three components as an important attribute to delight tourists at their destinations and respectively they are attractiveness, appreciation and activities. Geographical appearance appeals to an individual referred by attractiveness attribute. Appreciation attribute explains how warmly they are welcomed and hospitality in a particular destination. Extents of activities available for tourists contribute to the activities attribute. Most of the tourists select Sri Lanka as their destination because of this appreciation attribute. Crouch et.al categorized pull factors in to two; 01. infrastructure category consists of

accommodation services, travel and transportation services, telecommunication services, food and beverage services, sanitary facilities and shopping services,02. environmentalcategory consist of political, legal, social, demographical, cultural, natural and technological environmental factors. Kassean and Gassita(2013) identified five attributes compel tourist to visit Mauritius, they were; climate, beaches exotic scenarios, accommodation facilities and, hospitality. This study supported to the studies of Morrision and Crouch and his team.

Pull and push motivation factors

Push Factors (Origin)	Pull Factors (destination)
Escape	Scenic Beauty
Self-discovery	Historical Areas
Relaxation	Cultural Attraction
Prestige	Sporting events
Challenge	Beaches
Adventure	Parks
Excitement	Recreation facilities
Family	shopping

The tourism sector has been identified as one of the key sectors propelling the Sri Lanka's economic growth (Tourism Development Strategy, 2011). Historic and cultural ties in Sri Lanka provide scope to promote tourism globally. Sri Lanka is enjoying the benefit of being part of the region which consists of large number of industrialized countries, namely, India, China, Singapore, Malaysia, and Japan. Sri Lanka consists of all key ingredients, attractive geographical location, unique diversity, stability and peace, educated and quality human resource.

Objectives of the study

- Identifying tourist's internal considerations which induce them to select Negombo as their destination.
- Identifying tourist's decision making process employing these pull and push dimensions.

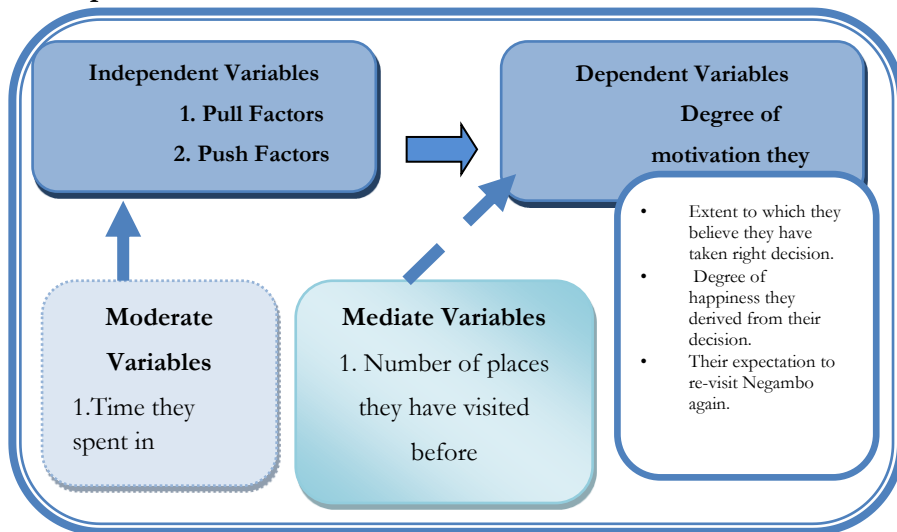
Study Area

Negombo is 37 km far from commercial capital city of Colombo in Sri Lanka and it is 7 km far from Bandaranaike International Airport Katunayake, Sri Lanka. It is located in North from Colombo. The city is swallowed by natural beauty which is received from Negombo lagoon.

Entire West coast of the Negombo is covered by the major beach resorts. It fascinates people all around the world by wide sandy beaches and by sheltered beaches. The prime economic activity in Negombo region is tourism with its small port and second place is hold by fishing industry which is originated centuries ago

Research Method

Conceptual frame work



Through above framework it was intended to highlight the relationship between pull and push motivation factors and their final decision to select Negombo as their destination.

It has also identified some moderate variables that can be influenced on pull and push motivation factors.

Study was designed to conduct descriptive analysis and correlation analysis to determine level of motivation derived to select Negombo as their final destination from pull and push motivation factors. According to Frenkel and Wallen (1996), correlation research describes an existing relationship between variables. Therefore, throughout this research it is studied existing relationship between determent variables. The study was taken form of quantitative research. Quantitative research explains a phenomenon by collecting numeric data that are analyzed using mathematically based methods (Creswell, 1994).

Decision Rule: Reject H_0 , If "P value" < " β value"

P=.000
 $\beta = .05, .01$

$P < \beta$; H_0 Rejected (There is a Linear Relationship between Independent and Dependent Variable)

The target populations consist of tourists who visit Negombo Sri Lanka during the data collection period. A total of 136 foreign tourists who traveled to Negombo during July-September, 2016 were used as the sample in this study. The participants of this research are tourists who are visiting Sri Lanka and who are willing to commit their valuable time to answer the set of questionnaires. A convenience sampling method was used based on accessibility and willingness to participate in the study.

Initially it was used primary data collection mechanisms to collect data by distributing structured questionnaire which contents closed- ended questions.

The study was adopted the questionnaire used by Basher Aref Mohammad Al-Haj Mohammad and Ahmad Pad Mat Som(2010) within their study in Jordan: An analysis of push and pull travel Motivations of Foreign tourists to Jordan to assist the collection of data from selected sample. Content validity of the study was tested by the lecturer before it was administered. They were evaluated the adequacy and relevance of the measurements to achieve ultimate goal of the research.

The first part of the questionnaire consisted of questions which mainly considers the tourist's perception about pull and push factors. Second part of the questionnaire measure the degree of motivation they derived from pull and push factors using Likert scale questions. Rest of the questions are about demographic variables gender, age, country from which they have arrived from and time they have spent in Sri Lanka Average of the answers is obtained to quantify the degree of motivation level. In the first part of the questionnaire consist of hundred and fifty (150) Likert scale questions to measure the participant's perception on pull and push factors. In the second part, the respondent was asked to measure the degree of motivation they received from above factors using 5-point Likert scale which range from least frequently used (scored as 1) to most frequently use (scored as 5). The study was administered from February 2016 to December 2016.

The Pearson correlation coefficient (r) is used to compute the relationship between pull and push factors and degree of motivation level. The

researcher also is used the t-Test and one-way Anova to find out how the perception on pull and push factors and degree of motivation level varied with demographic and other related factors.

Similarly, it is involved factor analysis as a data redundancy technique using varimax rotation procedure to delineate the underlying elements that were associated with traveler's motivation. Two research Hypothesis were developed as follows.

Problem Statement and Research Hypothesis

Do the pull and push factors influence on traveler's final decision to select Negombo as his journey end?

Research Hypothesis

H1: There is significant relationship between traveler's perception on pull factors and degree of motivation they received

H2: There is significant relationship between traveler's perception on push factors and degree of motivation they received.

Discussion and Conclusion

Here research attempted to show relationship between independent variable and dependent variable and also push-pull factors considered as independent variable while dependent variable was degree of motivation. Positive results of pull and push factors 101 out of sample, they would be recommending Negombo as a destination. According to the results H_0 rejected and H1 accepted and there is a relation between push and pull factors and degree of motivation foreign tourist's visit to Negombo. Therefore, research concluded the pull and push factors influence on traveler's final decision to select Negombo as his journey.

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The Effect of Land Tenure Practices on Paddy Production in Nuwaragam Palatha East, Anuradhapura District

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Abstract

The objective of the study was to study the impact of security of land tenure on use of agriculture inputs and land productivity. This study examined the paddy land use in Nuwaragam Palatha East Divisional Secretarial Area of Anuradhapura district, Sri Lanka. It provides both qualitative and quantitative information about the prevailing paddy land in the study area. The survey covered from the random sample of 100 farmers from 29 Grama Niladhari Division. The multiple liner regression technique was used to identify the factors affecting the yield. This study confirmed that the productivity of owner cultivated paddy land is significantly greater than that statutory tenant cultivated paddy land and higher tenure security of agriculture land leads to higher productivity. It implied that the owner get 14.133 bushel per acre more than the statutory tenant cultivators when other factor was constant. It was found that the fertilizer was most important input in paddy cultivation. Owner cultivator applied large quantity of fertilizer per acre (133kg) than that of the statutory tenant cultivator (111kg).

Keywords: Land Tenure, Paddy Productivity, Tenure Security

Introduction

Land is the basic for each physical development and form the primary for food production, for the provision protection and utilities, for the manufacture the good. (Lasun, 2006) Hence, land is the most important asset for the farmers and it plays major role for increasing and developing the agriculture production.

However, ownership of land often interferes with its use as an agriculture asset. (Idoma & Ismail, 2014) .The right of people to own, use and control and its resource are known as land tenure system. The term “tenure” is main concept for all human beings and it is an important part of the social, political and economic structure. The term tenure means the bundle of

rights an individual, household or community may have with respect to land or water or other resources for that matter. (Nasrin & Uddin, 2011).

Productivity can be defined in various ways. In this study productivity means ability to produce valuable output for every unit of natural resource. (Michel, 1990) Productivity is measured in terms of yield or income per acre/hectare. The basic resource inputs are labour and capital. (Michel, 1990) Land tenure systems affect agricultural productivity by influencing the efficient use of inputs and adoption of modern technology.

There has not been much study on land tenure and land productivity in Sri Lanka. (Kotagama & Athukorala, 1995) Therefore in this research the principal focus is to determine the impact of land tenure on agriculture productivity especially in paddy sector. So it is not only significant to help the economic developer but also paddy farmer will be highly advantaged.

The purpose of this study therefore, is to identify the impact of security of land tenure on use of agriculture inputs and land productivity in Nuwaragam Palatha East.

Methodology

In order to attain the objective of this study, study focuses on Nuwaragam Palatha East divisional secretariats in Anuradhapura District in Sri Lanka. For the administrative purpose, this Divisional Secretariat was divided into 29 Grama Niladhari divisions and 72 villages. To do this, sample from each division is selected according to the systematic sampling. Total number of farmers was 1012 (2016) Literature was based for determining the sample size of the research. Required information for the study was collected from a simple random sample of 100 farmers from the study area. 50 owner cultivator and 50 tenant cultivator were selected for discussion and necessary data collection.

It is assumed that there exists a linear relationship between the yield of paddy land (Dependent Variable) and several independent variables. In these studies, there is not considered all the influential factors because it is hard to identify statistically some factors like farmer's skills and knowledge, soil condition and adaptation of the new technology. Some major factors were selected for the analysis assuming that all other factors are constant in the selected sample. The functional relationship between yield per acre and selected independent variable is established as follows.

Five independent variables are Extent of paddy land, amount of seed used per acre, amount of fertilizer used per acre, amount spend on weedicides per acre and amount spent on insecticides per acre. The functional relationship between yield per acre and selected independent variable is recognized as follows.

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

Y – Paddy yield per acre

X₁- Ownership (Dummy Variable, (Owner cultivator, Statutory Tenant Cultivator)

X₂ – Extent of the paddy land (Acres)

X₃ - Seed quantity used per acre (bushels)

X₄ - Quantity of fertilizer used per acre (kg)

X₅ – Cost on weedicides per acre (Rupees)

X₆ - Cost on insecticides per acre. (Rupees)

In order to identify the factors affecting the yield, multiple linear regression analysis was performed. Therefore there was an assumption that owner cultivated is authorized to the entire production of the land and appropriate amount of inputs which likely to give a higher production may be used by the owner cultivators. Therefore it is assumed that the per acre level of agriculture input applied by owner cultivator is higher than that by statutory tenant cultivators. For the determination of examine the impact of tenurial system of paddy land on use of agricultural input and to examine the impact of tenurial status of paddy land on productivity, hypotheses were formulated and tested

Result and Discussion

The data was analyzed using statistical analysis system package. Hence, regression analysis technique was conducted to find whether there is any relationship between yield of the paddy and other independent variable such as extend of the land, Type of Ownership, Seed Quantity used per acre, Amount spends on weedicide per acre, and Amount spends on insecticide per acre, Amount of Fertilizer used per acre. It was resulted that there was the association between paddy yield and other independent variable.

The estimated beta value of the variable is given in the regression equation. (Equation 01)

$$\text{Yield} = 19.224 + 2.935 X_1 - 14.133 X_2 + 14.099 X_3 - 0.004 X_4 + 0.00 X_5 + 0.681 X_6$$

According to the equation 1, it meant that every independent variable increased, and then model predicts an increase of the dependent variable. The estimated parameters of the independent variables cost of weedicide and cost of insecticide were not significant. The estimated parameters of extend of the land, seed quantity, quantity of fertilizer and ownership were significant. In regression model, the regression co-efficient related to the ownership is -14.133. It implies that the owner get 14.133 bushel per acre more than the statutory tenant cultivators when other factor is constant. In regression model, the regression co-efficient related to the fertilizer is 14.099 bushels per acre for every additional one kilogram of fertilizer input provided that other factors are constant.

Impact on Land Tenurial System of Paddy Lands on Productivity

It is required to test whether there is any impact of tenurial system of paddy land productivity. Therefore following hypotheses was formulated. (Hypotheses 01)

H0: $\mu_1 = \mu_2$ Vs. H1: $\mu_1 \neq \mu_2$

Where,

μ_1 - The average yield of per acre owner cultivated paddy lands

μ_2 - The average yield of per acre tenant cultivated paddy lands

According to the two sample t-test, author has enough evidence to reject H0 and concluded that the average yield of per acre owner cultivated paddy lands is different from the tenant cultivator.

Table 1- Paddy yield classified by ownership

Type of Ownership	Mean	Std. Deviation	Minimum	Maximum
Owner Cultivator	113.86	6.037	100	130
Statutory Tenant Cultivator	83.64	5.724	80	101

The table 1 gives the detail of per of the paddy yield for owner cultivator and tenant cultivator. According to that, the yield for owner cultivator (113 bushels/acre) is higher than the statutory tenant cultivator. (83 bushels/acre)

Impact On Land Tenure On Use Of Agriculture Inputs

The entire production of the land is depending on the input which is used for that production. Therefore it is necessary to examine the impact of the tenurial system of paddy lands on the agriculture inputs.

Impact on tenurial system of paddy lands on use of fertilizer

At the interview it was found that the fertilizer is generally considered as the most important input in the paddy production by the farmers. Therefore it is required to test whether there is any significant difference between the per acre fertilizer quantity applied by the owner cultivator and by the tenant cultivators. (Hypotheses 02)

H0: $\mu_1 = \mu_2$ Vs. H1: $\mu_1 \neq \mu_2$

Where,

μ_1 - The average per acre fertilizer quantity used by the owner cultivator

μ_2 - The average per acre fertilizer quantity used by the tenant cultivator

According to the two sample t-test, author has enough evidence to reject H0 and concluded that the average per acre fertilizer quantity used by the owner cultivator is different from the tenant cultivator

Table 2-Per acre fertilizer quantity applied classified by ownership

Type of Ownership	Mean	Std. Deviation	Minimum	Maximum
Owner Cultivator	133.574	1.53899	133	140.6
Statutory Tenant Cultivator	111.256	2.37643	110	120

According to the Table no 2 average, owner cultivator apply large quantity of fertilizer per acre (133kg) than that of the statutory tenant cultivator (111kg).

Impact on tenurial system of paddy lands on use of Quantity of seed used

It was required to test whether is any significant difference between the quantity of seed used per acre by the owner cultivator and statutory tenant cultivator. (Hypotheses 03)

H0: $\mu_1 = \mu_2$ Vs. H1: $\mu_1 \neq \mu_2$

Where,

μ_1 - The average per acre seed quantity used by the owner cultivator

μ_2 - The average per acre seed quantity used by the tenant cultivator

According to two sample t-test, author has enough evidence to accept H0 and concluded that the average per acre seed quantity used by the owner cultivator is not significant different from the tenant cultivator.

Table 3- Seed Quantity used per acre classified by ownership

Type of Ownership	Mean	Std. Deviation	Minimum	Maximum
Owner Cultivator	2.179	0.14141	2	2.58
Statutory Tenant Cultivator	1.862	0.08025	1.79	2

The table 3 gives the detail of per acre seed quantity applied by owner cultivator and tenant cultivator. According to the Table no 3 average, the average quantity of seed per acre by the owner cultivator is 2.179 bushels and that by tenant cultivator is 2.020 bushels. Therefore, it seems that the quantity of seed per acre used by farmers does not vary by ownership.

Impact on tenurial system of paddy land on use of weedicide

It was required to test whether is any significant difference between the average cost of weedicide used per acre by the owner cultivator and statutory tenant cultivator. (Hypotheses 04)

H0: $\mu_1 = \mu_2$ Vs. H1: $\mu_1 \neq \mu_2$

Where,

μ_1 - The average per cost of weedicide used by the owner cultivator

μ_2 -The average per acre cost of weedicide used by the tenant cultivator

According to the two sample t-test, author has enough evidence to reject H0 and concluded that the average per acre cost of weedicide used by the owner cultivator is different from the tenant cultivator.

Table 4 - Per acre cost of weedicides classified by ownership

Type of Ownership	Mean	Std. Deviation	Minimum	Maximum
Owner Cultivator	4022	210.238	3800	4800
Statutory Tenant Cultivator	2889	111.708	2800	3300

The table 4 gives the detail average amount spent on weedicide applied by owner cultivator and tenant cultivator. According to the Table no 4 average, owner cultivator apply large amount of weedicide (Rs. 4800) than that of the statutory tenant cultivator.

Impact on tenurial system of paddy lands on use of Insecticides

It was required to test whether is any significant difference between the average cost of insecticide used per acre by the owner cultivator and statutory tenant cultivator.(Hypotheses 05)

H0: $\mu_1 = \mu_2$ Vs. H1: $\mu_1 \neq \mu_2$

Where,

μ_1 -The average per acre cost of insecticide used by the owner cultivator

μ_2 -The average per acre cost of insecticide used by the tenant cultivator

According to the Mann Whitney U Test under non parametric test, author has enough evidence to reject H_0 and concluded that the average per acre cost of insecticide used by the owner cultivator is different from the tenant cultivator.

Table 5 -Per acre cost of insecticide classified by ownership

Type of Ownership	Mean	Std. Deviation	Minimum	Maximum
Owner Cultivator	3020	90.351	3000	3600
Statutory Tenant Cultivator	2598	120.357	2500	3000

The table 5 gives the detail of per acre cost of insecticide used by owner cultivator and tenant cultivator. According to the Table no 5 average, owner cultivator apply large per acre cost of insecticide (Rs. 3600) than that of the statutory tenant cultivator (Rs.3000).

Conclusion

This study is showed that the mean value of the yield productivity of owner cultivated paddy land is considerably higher than that statutory tenant cultivated paddy land. Therefore productivity of the owner cultivated paddy land is significantly high. As well as owner cultivators used higher level of agricultural input. As a result of that higher tenure security of paddy land leads to higher productivity. It was also originated that there is no significant difference in quality of seed paddy land used per acre.

There is a lack of the practical published data on paddy land tenure and its implication. Further research is needed for making policy.

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Strategic Corporate Real Estate: A Diversion from Functional to Strategic Unit

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Abstract

The strategic intent of business organization implemented in the departmental level through its key functional areas including; marketing, production, finance and human resources while least attention is given to maintenance department of the organization. Top management of many organizations believes that maintenance plays a supportive role and ignores its strategic importance. However, the demand for efficient utilization of space and workplace productivity in today's global business environment ignites business organization to adopt a range of strategies for managing their real estate. Yet, the role of maintenance division is not capable to coup this strategic diversion. Thus, emergence of Corporate Real Estate (CRE) management proposed. The CRE strategy aimed to enhance the value of real estate and services to the core business. With this change, the top management of organization will spend time, contemplating their property portfolio other than to look at reducing its cost, realizing value from it or seeking to determine how property can improve their business by making strategic real estate. As a result, the aim of this concept paper discusses the importance of paradigm shift of the role maintenance of an organization to a CRE division to incorporate the reward of the strategic value of real estate to the overall performance of the organization.

Keywords: Corporate Real Estate, Strategy, Add Value

Introduction

Strategies are meant for achieving organizational goals. Corporate strategies are a plan of actions or policies designed to achieve overall objectives of the organization. Simply, it is the strategic management of resources of the organization (Ghemawat, 2002). According to Porter, (1996), top management of the organization review internal factors summarized as strengths and weakness with external factors; includes opportunities and

threats to balance the possible ways and means of achieving organizational goals.

A business without a clear strategy will not have the basis for existence or survival. A strategy of the organization is encircled with its economic context (Porter, 1996). Thus, the industry which the business operates has a positive contribution to the strategy of the organization. Henceforth, strategic actions are selected based on cost factor as well as cost sensitiveness of the decision. In other words, the impact of strategy is on firm's cost and revenue. Therefore the focus on firm's strategy aligns on how to achieve and sustain above-average return which supports to create a competitive advantage for an organization. However, in the competitive business environment, the sustainability of competitive advantage for business is questionable due to a dynamic market condition. Consequently, corporate management continually focused on quality, benchmarking and re-engineering of the business process to maintain competitive advantage of the business. To this end, corporates need to successfully implement corporate strategies to achieve the intended performance of the organization through its resources.

Corporate Real Estate

The organization gives higher emphasis to human resources, technology, information, finance, and marketing when it comes to efficient and effective management of its resources. Despite this, a marginal emphasis is placed on strategic management of its real estate (Creswell, 2012) which is a primary economic resource of production of any non-real estate organizations. The CRE a property which houses productive activities of a traditional corporation (Manning and Roulac, 1999) which includes both business (operational) and other non-operational (investment) properties of a non-real estate organization (Hiang Liow and Ooi (2004); Kooymans (2000) is a tactical level resource of organization which consume considerable amount of capital and long-term commitment on repair and maintenance (Kaluthanthri, 2009a).

Avis et al. (1989); Veale (1989); Teoh (1993); Andersen (1995); and Kaluthanthri (2009b) identified CRE is significant yet undermanaged segment of all corporate assets. Many executives of today's organizations claim that "we are not in the real estate business: hence, CRE management is not a significant issue to the company". Further it added, "CRE management is a function of the Finance Department and they will exercise for it" despite the fact that real estate represents 10 per cent to 40 per cent

of total assets while occupancy costs can range between 3 per cent and 10 per cent of revenue or 5 per cent and 15 per cent of total cost (Schaefer (1999); Kaluthanthri (2009b)). This creates negative attitude on CRE at the strategic level in many organizations (Brounen and Eichholtz, 2005). On the same context, Veale (1989) confirmed that 30 per cent to 40 per cent real estate asset portfolio hold by many Fortune 500 companies claims CRE operating expenses for 5 per cent to 10 per cent. Further, RICS (2002) confirmed, poor attention for CRE in the United Kingdom make a loss around £18 billion a year through the inefficient use of the property. However the same report inveterate that the effective attention and strategic management would improve the gross trading profit by up to 13 per cent. Meanwhile, the investigation the CRE holding pattern of distinct industries of industrialized economies found that significant negative relationship between real estate ownership and the systematic risk of the firm (Brounen and Eichholtz, 2005). On the other hand, the study of Hwa (2006) found contradict results that there is only a weak effect on stock return and CRE holding of companies listed on Bursa Malaysia (*Formerly known as Kuala Lumpur Stock Exchange*) and later, study of Tuzel (2010) confirming positive relationship between the amount of CRE holding and firm's systematic risk.

Nevertheless as per the Hiang Liow and Ingrid (2008) as cited by Sulaiman et al. (2013) and Wurdemann (2012) confirmed that CRE could use as an operational asset for increase organization's profitability through effective utilization and it is a value creator for the organization. Therefore, scholars argued that CRE is not a cost saver but the value creator for the organization. Moreover, Hiang Liow and Ingrid (2008) identified CRE as a strategic and a very flexible asset where organization sells it during a good time to make inward cash for business expansion. According to the Jalil Omar and Heywood (2014) in the globalized new millennium, the role of CRE has been upgraded to an extent of human resource management, finance, and support to internal culture development, productivity by facilitating convenient workplace environment for employees and making location advantage for business. Adding to the same argument Agentschap (2010) noted that use of energy within the organization can significantly reduce through the efficient CRE management programme. Supporting this argument Glumac et al. (2015) confirmed that effective maintenance activities lead to cost-effectiveness for energy reduction. Also, Joroff et al. (1993) found CRE is experiencing a rapid conversion to suits dynamic requirements of other corporate resources such as human resources and information services. Therefore the strategic importance of CRE as a contributory resource to the performance of the organization confirmed.

CRE: A Value Creator

The academic discussion on CRE and its contribution to value addition and performance were first discussed in the USA in the late 80s and early 90s. Nourse and Roulac, (1993) disclosed that a many US corporations did not have a formal real estate strategy and ignored the role of the CRE in the overall strategy of the corporation. Further, it is evident that New Zealand organization treat (Nichols, 2005) property as a passive contributor to business and offer attention only in a situation when the significant incident appears on the prospect. However, during the last decade (2000-2010) the role of CRE undergone a radical change and become a strategic resource (Harris and Cooke, 2014) which increases the efficiency and effectiveness of the organization. Yet the CRE as a discipline is still in a young stage without any empirical support (Harris and Cooke, 2014).

It is noted that although a separate units for real estate established in organizations, the unit focus on daily, routinely or myopic maintenance but not on specialized activities namely, corporate real estate planning, organization structure, and performance measurement. This poor attention on CRE makes hidden burden to strategic alignment of the business and weakens the overall performance of the organization (Tay and Liow, 2006, Hiang Liow and Ooi, 2004). Therefore strategic attention for CRE required (Hiang Liow and Ooi, 2004). Further, it is argued that CRE performance should measure in the context of metric and it should be communicated to CRE executives for linking CRE to the objectives of the business which makes CRE as an integral part of the business (Jordan et al., 2009) where higher performance or wealth accumulation earn through the alignment of CRE with the objectives of the organization (Lindholm and Leväinen, 2006).

Evidence on integration of CRE in strategic level of the organization and empirical discussion on impact on performance still at its early stages of development (Langford and Haynes, 2015) while, there are handful of studies tended to focus on the identification of nature of CRE practice in different industries (Kaluthanthri, 2009b, Kaluthanthri, 2009a, Kaluthanthri and Kumari, 2010, Kumari and Kaluthanthri, 2011). Veale (1989) noted that:

....both business schools and business itself should work to develop a well-organized and comprehensive approach to managing a corporation's real estate assets. Such an approach can begin to provide three key factors: first, a strategic framework for connecting the many

elements associated with corporate real estate [. . .]; second, a means for prioritizing real estate demands and guiding overall policy and strategic direction; and third, the development of management tools and systems that can inform, support, and improve the actual decision making process.

According to Nource and Roulac (1993), organization can implement eight real estate strategies including Minimization of occupancy cost, Increase flexibility, Promote human resources objectives, Promote marketing message, Promote sales and selling process, Facilitate production operation and service delivery, Facilitate managerial process and knowledge work and Capture real estate value creations of the business to improve the performance of the organization. The strategic drift of real estate from maintenance to CRE create value to organization through promoting business, stimulating employee innovation, and enhancing core competency of the organization. Later, Seven CRE strategies of (De Jonge, 1996), introduced as Cost reduction, Increase of flexibility, Risk control, Increasing productivity, Changing the culture, PR and marketing, and Increase of value which add value to the organization. Lindholm & Leväinen (2006) CRE strategic model for value addition identified as the third salient review on CRE strategy and proposed seven CRE strategies as Reducing cost, Increase Flexibility, Increase Productivity, Increase Employee Satisfaction, Increase Innovation, Promote Marketing and Sales and Increase the value of the Assets.

The literature on CRE strategy is evident the twofold ability on value creation. One way of value creation derived from Cost Reduction while Revenue Generation through effective CRE management becomes the second option. Cost reduction is the process used by the organization as the most preferred option to reduce their costs and increase their profitability. Depending on an organization's real estate intensity services or product, the level of application may vary. However, contemporary CRE management proposed revenue generation as the effective means of strategy for add value to the organization over cost reduction. In this way, CRE can become a Revenue Generating Unit which is an independent department who generates recurring revenue for an organization while supporting reduce overall cost on CRE. Refer Figure 1 for conceptualization of CRE Department

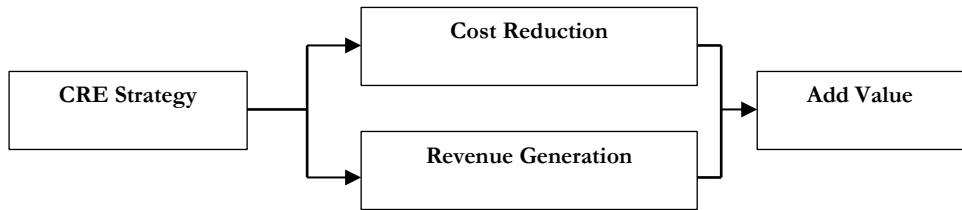


Figure 1: Paradigm shift from Functional to Strategic Unit

Strategies like Cost reduction, Increase of flexibility, Risk control, Increasing productivity and Facilitate Production Operation and Service Delivery (Nource and Roulac, 1993; de Jonge, 1996; Lindholm & Leväinen, 2006) deal with the tactical level programme of how to reduce overall cost of the organization and thereby add value to organization. The Cost Reduction role of the focused on how to support the organization by way of minimizing the real estate related cost of the organization. At the tactical level CRE division need to implement the programme on energy efficiency, recycling, effective waste management, efficient use of workspace, service friendly designs, multiple use of space or space optimization, establish workplace standards on real estate usage to earn cost efficiency. The involvement of CRE at strategic level decision making becomes crucial.

On the other hand Nource and Roulac, (1993); de Jonge, (1996); Lindholm & Leväinen, (2006) argued that CRE has the strategic perspective to contribute revenue generating and thereby add value. Proposed strategies including HR Satisfaction, Marketing, sales, Increase Innovation through facilitating knowledge work of the organization and Real estate portfolio management contribute to generating revenue from effective management of CRE. Tactical level plans like an introduction of a functional workplace, conveniently built environment, invest location, link environment with company product, use of design and layout of building for branding and/or marketing, timely purchase real estate and manage the risk of property are examples.

Being the traditional maintained department on real estate does not provide above identified strategic advantage or strategic support for the organization. The review of three salient discussions in CRE strategy confirmed that all focused on value creation of CRE. One important factor on this discussion revealed that CRE no longer a maintenance department and focused on strategic activities. Accordingly, the role of CRE evolved from steward to strategist. Therefore this conceptual paper proposed a CRE

diversion from functional to the strategic unit in any organization for earn strategic benefits of CRE.

Conclusion

This conceptual paper discusses the contribution made by the strategic CRE by incorporating real estate as a strategic resource of an organization. Being the latest valued assets of a many organization corporate real estate should be used as a value driven resource. Examining the value-adding perspective of CRE including both direct and indirect ways optimize suitability of the chose strategy of an organization and contribute to the core business. The practical implication of this concept paper enables through empirical investigation on finding the correlation and the impact between CRE strategies and performance or value adding to the organization.

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A Study on the Use of Urban Public Spaces by Street Vendors in Maharagama Town

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Abstract:

Urban public space is the physical space and social relations that determine the use of space within the non-private realms of cities. It is the setting for panoply of human activity and a fundamental determinant of the character of towns. Urban public space is a key element in the livelihoods of the urban poor, but its importance in development policies for cities is largely ignored. This paper presents about the study carried out on Street Vending and the use of Urban Public Space in Maharagama Town. The main objective of the study is to find out how the capacity of roads and pedestrian ways are reduced due to the street vendors. Data was collected using both quantitative methods and qualitative methods. As per the findings of the study it is noted that there are no planned places for street traders and they are, therefore, located in spaces which are meant for other uses like pedestrian ways and roads. The challenge for urban planners therefore is how to accommodate competing demands on urban public space, in particular, the need to accommodate essential pedestrian and vehicular movements in areas that have become *defacto* places of work. The implication of this is that, unless there is a conscious effort to adequately allocate some urban public space to take care of street trading in a very decent manner, street vendors will continue to invade public spaces to the embarrassment of city authorities.

Keywords: Street Vendors, Roads, Pedestrian Ways Urban Public Space

Introduction

Urban public space is a key element in the livelihoods of the urban poor, but its importance in development policies for cities is largely ignored (Brown, 2006). In Ghana, urban public spaces, such as open spaces, nature reserves and right of ways, have become assets for livelihoods. Thus, urban public space is perceived as a physical asset which is used to sustain the livelihoods of the urban poor. Street vending is a visible and controversial component of the urban economy and vendors operate their businesses in areas that can

be classified as public spaces and are originally unintended for trading purposes.

Street vendors can be defined as self-employed workers in the informal sector who offer their labor to sell goods and services on the street without having any permanent build-up structure (National Policy on Urban Street Vendors, Ministry of Urban Employment and Poverty Alleviation, Government of India) Street vendors do not locate haphazardly in the places from which they ply their trades and certain areas offer greater locational advantage than others (Harrison and McVey, 1997; Yankson, 2000). With the advent of modern retailing – fixed retail operations, departmental stores and malls – many expected that street vending would go away, yet today, in most countries of the world, it persists even where local regulations seek to ban or restrict it (ILO, 2002). In recent times, street trading has presented new challenges for urban administrations charged with the management of space in the country. In reality, there is no shortage of urban public space for trading, but the most profitable locations to trade are at the busiest locations where competition for space is acute (Brown, 2006).

Urban public space is a key element in the livelihoods of the urban poor, but it's important in development policies for cities is largely ignored (Brown 2006). Automatically urban public spaces, such as open spaces, nature reserves and right of ways, have become assets for livelihoods. Street vending can be identified as a visible and controversial component of the urban economy and they operate their business in areas that can be classified as public spaces and are originally un-intended for trading purposes. Normally street vendors operate on pedestrian walkways and on street, thus impeding both vehicular traffic and causing congestion, especially in the city center. Most street vending occupies busy streets, pavements or other public places. These activities are often considered to be illegal. And it is disturbing to the actual enjoyment of urban spaces which belongs to the urban people. Only a few vendors are lucky to secure stalls in the markets and some of those, who have market stalls, have either partly or fully moved their activities on to pavement and streets. There are many disturbances associated with the street vending. Major thing is traffic congestion as a result of increasing number of street vendors operated on the sidewalks and the streets. Consequently, there is intense struggle for space between the traders and the pedestrian on the pavement and most of the pedestrians are, therefore, forced on to the street, resulting in conflict of vehicular and pedestrian traffic.

Brown (2006, p. 10) has used the phrase 'urban public space', which means all the physical space and social relations that determine the use of the space within the non-private realm of the cities. Thus, urban public space refers to the areas that are used for public activities, which include pavements, parks, beaches, sport grounds, and so on. In many developing countries like Sri Lanka the disturbance to the urban public space due to street vending is a very popular matter. Accordingly the discussion and debate on illegality of the street vendors and their existence in the city is over urban space utilization is also pay an important consideration in the urban planning. This problem is highly experience in urbanized areas where ribbon development pattern is observed. Now days we can see that the both side of roads and pedestrian paths are occupied by people for selling food, clothes and other articles which are in demand by road users, they are identified as street vendors. Street vendors often locate themselves at places where natural markets for them. They have no permanent shops and no identified market area. Rather, they exist in areas that are otherwise popular congregations of the general public.

But road and city authorities, however, view their existence as illegal. Very popular argument is advanced that road capacity is reduced by the presence of street vendors and hawkers and the enjoyment of urban public space will disturb due to their vending activities. Their market is often perceived in terms of 'encroachments upon public space' leading to overcrowding, traffic jams and road accidents. So there is an importance of identifying the situations which find the disturbance to the urban public spaces due to the activities of street vendors. And it is needed to take immediate steps to minimize their negative effects.

For most street vendors, trading from the pavements is full of uncertainties. They are constantly harassed by the authorities. The local bodies conduct eviction drives to clear the pavements of these encroachers and in most cases confiscate their goods. A municipal raid is like a cat and mouse game with municipal workers chasing street vendors away while these people try to run away and hide from these marauders. Confiscation of their goods entails heavy fines for recovery. In most cases it means that the vendor has to take loans from private sources (at exorbitant interests) to either recover whatever remains of his confiscated goods or to restart his business. Besides these sudden raids, street vendors normally have to regularly bribe the authorities in order to carry out their business on the streets. All these mean that a substantive income from street vending is spent on greasing the palms of unscrupulous authorities or to private money lenders. In fact in most

cases street vendors have to survive in a hostile environment though they are service providers. The greatest challenge facing street vendors is with regard to site of operation and right to trading space. Traders settle in streets spontaneously without any official allocation. Most of the spaces the traders occupy have no tenure, and are not allocated and sanctioned by urban authorities, hence they are considered illegal. Street vendors are seen to occupy public spaces, and disturb order in public spaces. In most cases street vendors jostle for sites close to transport and commuter nodes.

Street vending has yet to attract sufficient research attention; hence, there is a paucity of information on that segment of the urban economy just as other activities in the informal economy. The conceptualization of informal trading and related activities within unauthorized urban public spaces and a definition of the workers involved remain unresolved in the literature.

Thus this research is focused to identify the use of public open spaces by street vendors in the selected case study area and to identify the issues associated with it.

Research Method

A questionnaire survey was carried out selecting around 15-20 vendors in each of selected four main roads namely, Old Road, High Level Road, Pamunuwa Road, and Dehiwala Road. The respondents were selected on the basis of gender, goods sold and the type of trading facility, representing observed variations in each Road. Additionally researcher's personal observations and findings from the discussions with the resource persons were also utilized.

Findings

Street vendors in the case study area occupy the public spaces and pedestrian ways haphazardly in the town creating traffic congestion and obstruct the smooth flow of pedestrians as well. Certain issues can be deduced from the approach of the urban authorities in Maharagama Study area towards street vendors. Executives of street traders' associations are not given the needed recognition by both urban authorities and street traders themselves. This implies that the street traders' associations are not recognized, hence, they are not encouraged to strengthen their associations. There is also hardly any dialogue between street traders and urban authorities. The absence of dialogue is an important issue and decisions are made by government for street vendors. It is expedient that city authorities involve the street vendors in dialogue to curtail the problems arising from

their activities. There is also the need to take into consideration ways of enhancing livelihood strategies already adopted by the urban poor.

Conclusion

There are no planned places for street vendors and they are, therefore, located in spaces which are meant for other uses. This results in contestations and conflicts with urban local authorities. The challenge for urban planners is how to accommodate competing demands on urban public space, in particular, the need to accommodate essential pedestrian and vehicular movements in areas that have become *defacto* places of work. The implication of this is that, unless there is a conscious effort to adequately allocate some urban public space to take care of street trading in a very decent manner, street vendors will continue to invade public spaces to the embarrassment of city authorities. This study suggests that trading location is very important to the vendors and their operations require such a location that must induce impulse buying and convenience to buyers. It is recommended that, street trading areas must be integrated in urban planning schemes to ensure that the activity is accommodated adequately in the urban spatial environment. Such an approach does not seek to perpetuate the activity, but rather attempts to limit its negative and undesirable effects on the urban environment. For street vendors, access to urban public space in the right location is critical to the viability of traders' operations.

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GIS Application for Property Valuation Using Comparative Methods; Case Study of Maharagama UC Area

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Abstract

In Sri Lanka currently both the private sector and public sector valuers when they doing comparative method of valuation they are collecting the selling prices & rentals of similar properties within the same market area. In the above traditional method many of the problems are visible and the skilled map analyst makes the necessary adjustments and knows how far the information can be relied upon. Through my research study is going to find out how can use the Geographic Information System (GIS) Software for property valuation especially comparative method. GIS provide better tool for preparing efficient data base, Easily get background information to the valuer, it helps to do effective and accurate valuation.

Introduction

In Sri Lanka currently both the private sector and public sector valuers when they doing comparative method of valuation they are collecting the selling prices & rentals of similar properties within the same market area. In which the characteristics of each object were described and locally defined and the valuers first selects several similar properties (comparables) from among all the properties that have recently been sold (Bare land and Buildup) and rented out. Since no two properties are identical the valuers must adjust the selling price and rental of each comparable to account for differences between the subject and the comparable, i.e. differences in size, age, floor area, convenience, condition, quality of construction, selling & rented out date, surrounding neighborhood, etc. The valuers infer the current value of the subject from the adjusted sales prices of the comparables. They marked the collected evidence in maps (Location Sketch) for doing this adjustment accurately and analyses manually. They use the manual method to storage, management, manipulate and presenting data. They did not use any software for this in other countries such as Switzerland, UK, etc...they use much advance valuation methods like Automated Valuation Model, computer assisted mass appraisal (CAMA), Artificial Neural Networks (ANN) computing model and GIS.

In the above traditional method many of the problems are visible and the skilled map analyst makes the necessary adjustments and knows how far the information can be relied upon. Through my research study is going to find out how can use the Geographic Information System (GIS) Software for property valuation especially comparative method. Because a number of renowned valuation firms have adopted more advanced database systems and analytical techniques such as Geographic Information System (GIS) that allow for not only easy, but more efficient and effective management of spatial data (Almond et al, 1997).

In Sri Lanka using the traditional methods of valuation which contained lacking parts of adopting technology because of this there are ineffectiveness of data storage, data management, manipulation and presenting, need separate place for keep, back up system, time consuming and lack of accurate updated maps to marked collected data. This can be achieved precisely only through the application of let us information technology.

Objectives of the Study

“To apply GIS in property valuation especially comparative method of valuation”

The research should be very useful to the researcher and as well as the people who are using it. Such kinds of important are as follow

- GIS can provide more accurate distance measures by using the actual transport network rather than straight line distance
- Can predict value clearly over value in some places and under value in other place.
- The use of GIS offers the ability to identify the locational factors that effect property value in the same way that physical and legal factors such as differences in age or lease factors are quantified by valuer

Data Collection

Under this study has collected altogether 29 properties form Maharagama UC Area which includes both primary and secondary data. From them five type of properties have been collected namely subject property, Rental properties, build up sales, bare land sales and past valuation

- 01 primary data is collected as subject property
- 08 different rental properties are collected under primary data
- 05 bare land properties are come under primary data

- There are 11 build up sales properties have been collected, 04 primary data and 07 secondary data are included under build up sales properties.
- Under the past valuation only 03 types are collected from secondary data

Altogether, for this researchable problem, the study has selected 19 primary data and 10 secondary data. These all come under five different properties in the Maharagama area

Method of data Analysis

In this particular research analysis, data can be analyzed as follow, there are two types of analysis such as physical analysis and special analysis are done by the study. As a first step subject property is marked, and the general profiles of the property are collected. In the third stage, the comparables are collected from the past and new comparable. Then, from the collected comparable specific profiles are marked by the researcher. These roles are played under physical analysis. Throughout the special analysis, the specific profiles are analyzed as special and locational analysis. Next, the rate is fixed for subject property.

The Process of data analysis

Data analysis can be followed through the process of

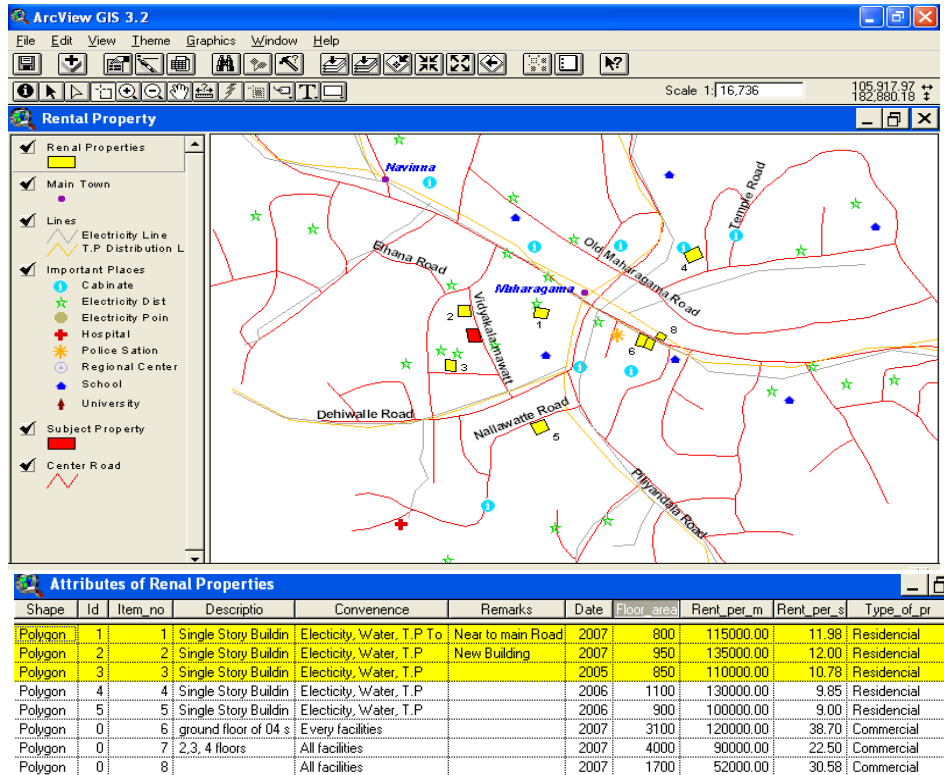
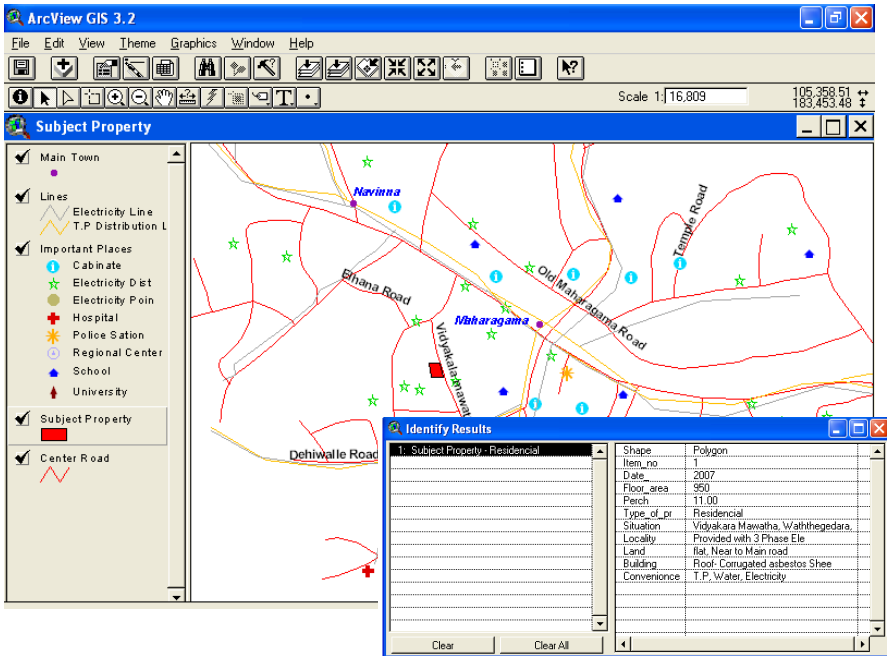
1. Physical Analysis

Under this, study is looking only the selection and physical understanding of comparable properties. There are mainly four types of physical analysis are done such as marked the subject property, collect general profile of the subject property, collect comparables such as(Rental Comparable, Bare land sales Comparable, Build up sales Comparable and Past valuation Comparable)Recommending Specific Profile

2. Special Analysis

Under the spatial analysis, selected comparable properties are looked with special map where the locational analysis is most important such as Join to geographical data and Value map display, spatial analysis and Locational Analysis, fixed the rate for subject property, follow the valuation procedure and value the property see the maps

Map 1 Subject Property



Conclusion

In Sri Lanka using traditional method of valuation it has ineffectiveness in data storage, management and manipulation, data presenting and analysis, backup system, time consuming, not have location proper map etc... by Applying GIS is a remedy for it and also GIS provide better tool for preparing efficient data base, Easily get background information to the valuer, it helps to do effective and Accurate Valuation. So in the field of valuation GIS application is must.

Recommendation

- Valuation needs vast number of data, GIS provide better tool for preparing efficient data base
- Under Land Acquisition Act if Government wants to acquire land for road widening by looking the theme of that area and application of GIS can find what kind land is going to acquire, usage of land and other relevant data relevant for valuation can collect. On the other hand if the purpose is any other purpose example if it is for School can find out the suitable area and can give a recommendation.
- If valuation department maintain data of that are, they have a knowledge of that area it mean they know over value area and under value area, in this sense if any land sold (normally in the deed they put lower value as consideration amount to reduce the stamp duty tax) can easily find out value of that land and confirm the stamp duty tax
- Under Urban development act if any property is to be acquired, two date of valuation is usually, in that sense present situation can collect the data on the other hand declare date land use pattern, value of land data collected is vary difficult. If we maintaining data base system which is easy in this case also GIS functioning major role

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Franchise Affiliation in Real Estate Brokerage Industry in Sri Lanka: RE/MAX Sri Lanka as a Case Study

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Sri Lanka now stands at the cusp of a new dawn in its real-estate needs. Rapid development of infrastructure and multiple capital investments have led to Colombo and its suburbs seeing an exponential growth in infrastructure and across the island the number of developments are on a steady rise. It is at this crucial juncture that the world's leading franchise in the real-estate industry brought their invaluable services to the island.

RE/MAX, a real estate buying and selling franchise that is ranked among the top global brands, and ranked 8th in the world in the Franchise Times 200 magazine. RE/MAX originated in Denver, Colorado USA as a family owned business by Dave and Gail Liniger. RE/MAX standing for Real-estate maximums, uses a model that ensures transparency, honesty and maximum benefits to both agents and clients.

Today RE/MAX has expanded its operations to 100 countries with over 7500 offices that encompass a network of over 115,000 agents. The organization has over 43 years of experience in the industry and have crafted a real-estate management model and culture that harnesses their vast experience and expertise, a model that is now followed globally to bring a high degree of professionalism to the real-estate industry.

While the real estate industry in Sri Lanka was thriving using its existing models, RE/MAX changed the whole ball game. Clients who have properties for sale choosing to use the services that RE/MAX offers will get global exposure through the RE/MAX website (www.glogal.remax.com). This ensures that more potential investors will see your property and the chances of finding the right buyer drastically improves. In reverse through RE/MAX you can also find listings throughout the world that you can inquire into.

Any real estate owner merely needs to contact their nearest RE/MAX office to get the ball rolling on their property needs. An agent is assigned to each property, and this agent will take all the necessary steps from visiting the location, collecting all required details, and taking required photographs to

compiling them into a listing and putting it up on the RE/MAX website so that potential buyers and other agents can easily access all details regarding the property. All RE/MAX agents are professionally trained to provide services in buying, selling, renting, leasing & property management. Therefore choosing a RE/MAX agent can provide a professional service in a transparent and ethical manner.

Before taking on a client, the assigned agent will conduct extensive research on the property in questions, ensuring that all legal aspects are clear such as deeds, and that there are no issues relating to the selected property. RE/MAX agents receive extensive training on how to handle properties and clients and professionalism and honesty is enforced at all time. Extensive market research is conducted to ensure that the client is informed of the best possible price that they can get for their property to ensure that all parties concerned are satisfied with the result. RE/MAX agents make sure that clients are informed and educated regarding their property and RE/MAX methods before the concerned property is listed with the organization.

Those already engaged in the real estate industry also have the opportunity to join RE/MAX as Franchise owners, by doing so they get access to the tools and training that RE/MAX offers, both through physical workshops and training that are organized regularly by the Sri Lanka corporate office of RE/MAX and also through RE/MAX university which provides countless tutorials and instructions that any realtor or agent will find highly useful. Moreover by associating themselves with the RE/MAX brand they get global exposure and added value to the invaluable services that they provide. RE/MAX Sri Lanka welcomes anyone whether a novice or experienced in the industry to join its growing network of agents in the country to pursue their real estate service goals allied with a strong brand that ensures global identity and clear career trajectory.

Sri Lanka has favourable laws regarding foreign investment into properties, with a 100% tax being levied for real estate purchases by foreigners, which is not applicable to luxury apartments. Therefore many foreign nationals and non-resident Sri Lankans are keen in investing in real-estate in the country. This is why the global exposure that the RE/MAX website and agent network provides can ensure that your property sale or rent can be made in the shortest possible time frame.

RE/MAX Sri Lanka has begun its operations with the goal to ensure that within five years its local network will grow to encompass at least 1000

agents. This is directly 1000 job opportunities created in the country. This also in turn ensures an increase in allied industries such as renovations and property developments which creates much more job opportunities in the country.

Property owners/buyers needs to be well informed regarding their real estate needs and until now less structured ways have been used to meet these needs. This is neither secure nor profitable. The RE/MAX model ensures that no scams take place that all concerned parties are informed and that RE/MAX takes on the responsibility to build trust and transparency in all its transactions. RE/MAX brings its vast experience and services to the table that ensures that real estate is given the attention it deserves and that the best possible buyer is matched with the best possible property at the best possible price. In addition, RE/MAX Sri Lanka wants to take every possible measure to ensure that the community as a whole is educated regarding property matters and are kept informed so that they can make the best possible decisions in real estate.

Throughout the world in developed countries realtors are valued professionals who provide a vital service to their communities. Real-estate agents are licenced and trained; buyers and sellers are well informed; and the deeds and documents are legal and completely without any dispute or issue. We should ensure that in Sri Lanka as well this becomes considered a norm. RE/MAX Sri Lanka aims at revolutionizing the real-estate industry by promoting these ideals and ensuring that trust and responsibility are established among real estate agents and the communities they serve.

Poster Presentation – Abstracts

A Study of Health Risk in Home Environment Within the University of Sri Jayewardenepura Township Area

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Abstract

Generally, the home environment has been acknowledged as one of the main settings that affect human health. Living and housing conditions are the basis of many factors influencing residential health. Good physical and mental health of residents depends on having homes that are safe and free from health risk factors. The unfit housing can contribute significantly towards ill health like asthma, wheezing, respiration problems, dengue and domestic accidents among the inhabitants. This research aims to find out health risk factors within the home environment and its impact on the health of the inhabitants. Accordingly, in this research, it is expected to explain ten major risk factors on health associated with the home environment such as “structural deficiencies”, “insufficient space”, “poor indoor air quality”, “lightning and ventilation”, “risk of pests”, “humidity/mould growth”, “risky materials like asbestos, lead”, “lack of proper sanitation”, “water supply” and “other threats of safety like noise, firing”. This study was conducted within the University of Sri Jayewardenepura Township area. Primary data was collected from 60 households by means of general observation and interviewing the people who live in the study area using a structured questionnaire. Sampling method was Systematic Sampling method and collected data was analyzed by using SPSS 16.0 and Microsoft Excel. As per the findings, there was 41% of average level of risk percentage regarding to the “other threats of safety such as noisy background, fire precaution” etc. There is a 39% of risk level for “threat of pests” and there is a 30% of risk regarding “materials used in home environment”. Moreover, findings revealed that wheezing was the most reported disease in the study area and there was a significant correlation between risk factors such as “poor indoor air quality”, “risk of pests like rats and moldiness”. And health of inhabitants especially with

regards to the Asthma, Wheezing and respiration problems are also related with these factors. It is also noted that even though the reported domestic accidents was insignificant, general observation evident that the inhabitant like elders, children, pregnant mothers etc. are at risk due to poorly planned and maintained physical features such as tiled floors, staircase etc. However, this phenomenon should be specially studied. Also it is fond as per the observation, risk is obviously very high on dengue and related health issues due to poor neighborhood cleanliness.

Keywords: Home Environment, Health Risk Factors, Impact, Inhabitants' Heath, Domestic Accidents

A Comparative Study on the Living Standards of Resettled and Non- Resettled Households: A case Study on Kotmale Reservoir Project under the Accelerated Mahaweli Development Program

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Abstract

This study is focused to comparatively interpret the similarities and dissimilarities of the living standards of two settlements (re-settled and non-resettled) in the Kotmale Reservoir project which comes under the Accelerated Mahaweli Development Program of Sri Lanka. To compare the similarities and dissimilarities, two settlements colonies located adjacent to each other in the banks of the Kotmale Reservoir was selected. Accordingly Nawathispane which is a colony consists of resettled families and Harangala which is a traditional colony or non-resettled families were considered. A sample size of 33 households in Harangala and 19 households in the Nawathispane colony amounting 52 households were selected to collect relevant data. Two main aspects were considered to measure the living standards namely economic and social aspects. Data were obtained through questionnaire survey, interviews, and through researchers personal observations. As per this study, it is identified that the economic capacity and the social wellbeing of the resettled colony has been expanded compared to the non- resettled village through the resettlement process. Though it reflects a positive trend of economic aspects in physically, the perceptions of the people on the economic aspects indicate a negative picture. In terms of social aspects, strengthening of relationships and institutional and structural enhancements can be observed through the resettlement. Even though there is no significant difference between the two colonies in terms of socio-economic aspects that were discussed in the study, the situation in Nawathispane which is the resettled colony shows a satisfactory level of living standards due to the careful attentions that have been paid in providing the basic amenities, infrastructure and socio economic and cultural link of the society.

Keywords: Resettlement, Living Standards, Colony, Economic, Social

A Study on Labour Related Risks in Smallholder Rubber Plantations in Agalawaththa area of Kalutara District

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Abstract

This study is focused on labour related risks of smallholder rubber plantations. As a developing country, Sri Lanka mostly depends on agricultural sector and rubber is one of the most important agricultural cash crops in Sri Lanka. Labour is an essential factor of production for all agricultural activities including rubber. Rubber is a labour intensive crop. For this study smallholder defined as rubber growing lands in extent of below four hectares (ten acres). Study areas of this research covers Kithulgoda, Kurupita, Kevitiyagala, Polgamapala and Kalupahana GNDs in Agalawaththa. Questionnaire Interview accomplished for sample respondents to collect data which is of 174 of total population to select the 50 sample respondent is weight as 30% of the each GND divisions. Objectives of the study are to identify lack of skilled labour in the rubber plantation sector, to identify labour attraction for agronomic practices and to identify ways for other income from the rubber estate such as intercropping activities.

Non availability of required labour is identified as a big issue in the study area (62 percent since last four years). As a result rubber lands are converted to other crops (tea, cinnamon) or sometimes blocked out as building sites. This study finds that all the labourers engage in rubber plantation are more than 50 years old and younger generation does not like to engage in agricultural activities and low price of rubber is a main reason for the labour shortage. Many number of garment factories, commercial shopping centers provide many job opportunity and they pay higher wages and better facilities compared to agricultural sector. The existence of rubber estate is essential for whole society since it serves as an artificial rain forest and carbon footprint. Therefore government can save the rubber lands through paying some amount to smallholders based on number of trees.

Tapping is the most expensive and problematic agricultural activity. It is found that low frequency tapping (LFT) is a good method of minimizing both labour requirement and tapping cost. Instead of alternate day tapping, the frequency of tapping can be reduced to once in three days with use of yield stimulants. Develop tapper training program and identify new technologies for the sustainability of rubber smallholders.

Keywords: Rubber Plantation Sector, Smallholder, Labour

Introducing Real Estate Investment Trusts (REITs) in Sri Lanka: Challenges and Opportunities

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Abstract

Today, Real Estate Investment Trust (REIT) is passing through a stage of rapid growth in worldwide and it has significantly affected to uplift the real estate sector and overall the country economy in leading countries of the world as a collective investment vehicle that invests in a diversified pool of professionally managed, investment grade real estate. REIT was proposed to introduce to Sri Lanka by the budget 2016 with the objective of impressing much required capital to the real estate, infrastructure development and also to provide an avenue for the small investors as a benefit from the development in the sector. With this direction of the budget, a collaborative industrial work has to be run for the success of the introducing REITs for the real estate in Sri Lanka. Therefore, it is indeed essential to do a study to fill the gap between the idea of the introduction and the challenges and opportunities in implementation of REIT. The primary goal of this study was to provide an insight study on introducing REITs for real estate in Sri Lanka by following a theoretical framework of qualitative analysis on company, industry and economy level in the local context and a review of REITs operation in the global context with the information collected through interviews and secondary data such as text books, official statistics, reports and online articles and publications.

Keywords: Real Estate Investment, REITs, Sri Lankan Real Estate Market

Application of Geographic Information System in Property Valuation

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Abstract

In the present context GIS become a most significant tool to represent the information. Increasing technology is also affected to the GIS. As a result of this, GIS has been used to determine the land valuation. The land valuation is the process of determining the price of given characteristics in certain location. Main objective is land valuation determining the market value of the land. Land valuation is a most time consuming activity it gets long time period to complete that task. Therefore, land valuation field in this research study mainly focus on application of GIS in property valuation. Various factors are influenced for the land value. The value depends on the various factors that may be tangible or intangible. These factors can be divided in to proximity factors, environment factors and physical factors. These factors influence to the value in various amount. Weighting system in used for categorized the map. As per in this research study, assigning relevant wait to each factors. To weight factors, can use the pair wise comparison method. Homagama area is selected for this research study. In this research, used eight parameters which are determine the market value of the land. Namely proximity to main road, proximity to minor road, proximity to railway station, land use type, proximity to town center, proximity to school, proximity to recreational area and land zoning. . For each and every factor, the shape files were created using the 1:10,000 data which is prepared by the Survey Department of Sri Lanka. The final map was shown various land values depended on the above factors. Finally, the area was divided into land value classes and categorized as low, moderate, high valued and restricted areas. The area under higher value there are good infrastructures and other facilities. Also there are some areas under restricted areas. In these areas there are no values in the land. It can be concluded that this kind of model would be very much needed in the process of land valuation. The valuer can

take idea about the Land before go to the visit subject property. Further, the study suggested that the model should be enriched with a number of parameters than this proposed model.

Comparative Study on Customer Satisfaction on Private and Public Sector Banks in Colombo Municipal Council Area

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Abstract

Commercial banks play a significant role in the economic development of the country representing major part of the service sector. Various types of services can attract more customers to the banks. Hence, providing better service quality is essential as banks have to compete for customers. The aim of this study was to determine the customer satisfaction with regard to service quality in the banking operations and compare customer satisfaction of public and private sector banks in Colombo municipal council area. Eighty commercial bank customers were used for the study within Colombo municipal council area. The measurements used were based on widely accepted SERVQUAL model of Parasuraman. A descriptive statistics analysis and regression analysis were used to evaluate the level of service quality of commercial banks within Colombo municipal council from the customers' perspective. The results of the study indicated that there is significant positive relationship between service quality and customer satisfaction in commercial Banking sector. When comparing the regression analysis, there can be seen the higher explanatory power of private banks than public banks in the individual models. When comparing public banks and private banks, it was revealed that there was a better significant relationship in private banks than public banks in term of service quality dimensions and customer satisfaction. Tangibility was rated as the most important dimension which affects on customer satisfaction in both banks. It was evident that the private bank customers have positive attitude towards the physical facilities of banks in comparison with public banks. In addition to that, the descriptive and correlation analysis confirmed that there was a significant gap between customer expectations on state banks and private banks; and research results indicated that most of the customers are preferable to private banks rather than public banks in terms of service quality of commercial banks located in Colombo municipal council area.

Guest Satisfaction on Corporate Real Estate Performance: Special Reference to Lavanga Hotel, Hikkaduwa, Sri Lanka

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Abstract

The purpose of this study is to investigate how a hotel can operate Corporate Real Estate (CRE) to satisfy their guests. It provides a theoretical and empirical overview on the possible mechanism on the effective combination of hotels' CRE on performance and guest satisfaction. The study constructs a model that integrates CRE performance factors and guest satisfaction. A face to face questionnaire survey carried out with local and foreign visitors were selected based on convenience sampling method who visited to a 2-star graded hotel in Hikkaduwa, Sri Lanka. The Corporate, Environment, Portfolio and Management are identified as four factors on CRE performance. The study confirms that CRE has a positive impact on guest satisfaction which leads to profit maximization of the hotel. The study develops a literature-based conceptual model which portrait the relationship between CRE performance and guest satisfaction. Moreover, the empirical confirmation supports the application of the model in the hotel industry in Sri Lanka. The investigation is limited to a case study; i.e. 2-star graded hotel. Therefore, the application of finding has a limitation on an application in other grades of hotels in Sri Lanka. Thus, for an overall validation of the model, it is recommended to complete overall industry analysis which eliminated the limitation of the study.

Keywords Corporate Real Estate, Corporate Real Estate Performance, Guest Satisfaction, Hotel Industry

Study on Determinants of Graduates' Housing Demand

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Abstract

Humans need certain basics for survival. Food, clothing and shelter are some. Shelter is one of the requirements to address the physiological needs of humans. Huge portion of the income is invested in acquiring a house to satisfy the physiological satisfaction. Based on the literature, demands for house depend on the several factors which may influence first time buyers' decision making. Among the factors are age, gender, marital status, income, number of family members, level of education. A significant phenomenon of the residential property market in Sri Lanka in recent years is the unprecedented on-going constructions. Buyers are interested to buy a readymade rather than to rely on constructions. Youngers, who are thirsty on higher education, come to Colombo for their university education because a considerable number of universities situated in Western province. Ultimately being graduates engaged in the employment opportunities in and around Colombo and become the immediate customers making a demand to readymade houses. The relationship of graduates as first time buyers and the demand for housing has not been adequately researched in Sri Lanka. The focus of this research is to identify the determinants of graduates housing demand and whether there is an impact to the ready-made housing demand. Randomly selected 64 graduates who are working in government organization were used to collect data through a structured questionnaire. Chi-Square Tests, independent sample t-test were used to identify the relationship between dependent and independent variables. Results revealed that Age, Marital status, monthly gross income, monthly permanent income, and years of work since graduations have a strong relationship with 0.23, 0.31, 0.44, 0.47, 0.38 to the housing demand. Level of education and gender were not strong significant impacted to the housing demand. The most of graduates still like to go for new construction for achieving their housing dream. According to the research monthly permanent income and monthly gross income are the significant factors that determined the graduates housing demand.

Keywords: Graduate's Housing Demand, Housing Intension, Determinants of Housing Demand.

The study of increasing productivity of small tea holding Sector of Udunuwara Divisional Secretariat area

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Abstract

Agriculture sector is more valuable for the economy of Sri Lanka. Tea is considered a major plantation crop in Sri Lanka. Tea is a very important product in many countries due to huge consumption in the world and its valuable contents. Green tea leaves quality and quantity are affected by many factors. The objective of this research was to identify the factors affecting both quantity and quality of green tea leaves. Whilst most of the tea producing countries have increased their production, Sri Lanka is experiencing a continuous downward trend in total production. The Tea Research Institute (TRI) is carrying out excellent research work and has introduced many useful practices including high yielding clones, newer forms of fertilizer mixtures and other recommendations which contribute towards higher productivity. Despite such efforts aimed at increasing productivity, the performance of the larger number of tea small holdings are disappointing. The productivity amongst such small holdings is on the decline. According to my investigation productivity of tea leaves differ sometimes wrong practices of tea holders, some issues of them and none prevent factors like natural factors. According to data collection fertilizer subsidiary is not received correctly for small tea holders and therefore it is affected for people who faced financial problems. Worker shortage is the main problem to prevent plucking tea leaves at correct time. Not only problems of tea holders but also wrong transporting ways also contributed for decline the productivity and quality of tea leaves. Data is collected as primary & secondary data, as appropriate to my research. But primary data is mostly based for this. Secondary data collected from Tea Small Development Authority Gannoruwa, Peradeniya. Data is collected, through questionnaires from 50 small tea holders, less than 10 Acres.

Keywords: Tea Leaves, Productivity, Quality, Small Tea Holders

Factors Affecting the Promotion of Organic Farming in Sri Lanka

Case Study in Siyambalanduwa Pradeshiya Sabaha Area

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It is an obvious fact that there are serious environmental and human health issues due to inorganic farming and consumption of inorganic foods. As a result there is a trend to shift for organic farming and people even are more conscious about the health issues associated with the consumption of inorganic foods. But still the organic farming is not so popularized specially among the farmers due to several factors. Hence this research was focused on factors affecting the promotion of organic (paddy) farming with special reference to Siyambalanduwa Pradeshiya Sabha. Area in Monaragala District. Basically, attention was paid to study the advantages and disadvantages in relation to the factors such as land extent, monthly income, educational level, perception of farmers and environmental aspects. A sample of 51 farmers who are engaged in organic (paddy) farming was selected for the study and relevant data were obtained through a questionnaire survey interviews. The main advantage is the profit of organic paddy farming is higher than inorganic farming. Main disadvantages were identified as low monthly income of the family (except income from farming) and lower educational level. High cost of production and scarcity of labour also has been identified as other disadvantages.

Keywords: Organic Farming, Inorganic Farming, Paddy, Environment

An Analysis on Suitability of Solar Power System for Households: Case study in Gampaha Urban area

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Abstract

Sustainable domestic energy has been a significant factor in the development of the properties in the world. Cost, availability, environment problem etc are associated issues in popular energy sources like, fossil oil, hydro electricity and gas etc. In this context, use of solar panel has been recognized as a sustainable energy for domestic purposes which would be an emerging trend of development of residential properties. Hence, it is important to be properly knowledgeable about the usage and utility of solar panel. This study examines suitability of using solar panel in residential properties in Gampaha urban area and households awareness about the solar panels. Also, this study is attempted to identify key motivational factors to establish solar system in residential properties. Further the study examined householders' views on the use of solar. These objectives were achieved by analysing primary data collected from current solar panel users through a questionnaire survey. Relevant secondary data was obtained from The Ceylon Electricity Board and approved solar panel agents in the Gampaha area. Analysis was done descriptively. The study found that a considerable amount of solar panel users belongs to the category of those monthly income level is more than Rs.150,000. Accordingly, their monthly electricity expenditure was recorded as a considerable percentage from their total monthly expenditure. In average, it is about 7% from total expenditures. When monthly electricity bill amount is greater than Rs.5400, the solar investment generates a positive Net Present Value (NPV). Therefore, householders who receive monthly electricity bill greater than Rs.5400 have an opportunity to use solar panel systems. Among the respondents, majority of respondents are highly satisfied, because monthly electricity expenditure can be converted to zero value by installation of solar panels.

Hence, it can be recommended public awareness should be made to know how to select appropriate solar panel system for houses, installing and which requirements should be fulfilled, advantages of investment on solar panel system etc. In addition, solar panel systems should be promoted and financial facilities should be provided for that.

Keyword: Solar Panel, Satisfaction, Domestic Energy, Residential Properties, Installation of Solar Panel

A Study on Householder's Satisfaction on Low Income High-Rise Housing in Colombo City

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Abstract

Householder's Satisfaction is not only an important component of individuals' quality of life, but also determines the way they respond to the residential environment. The aim of this study is to evaluate householder's satisfaction on low income high rise housing in Colombo city with special reference to the case of Lakmuthu Sevana Housing Scheme. With the help of available literature, factors such as "physical features of the housing", "quality of services within the housing unit", "public facilities" and the "social environment" within the housing area and their contributions to residents' overall housing satisfaction were recognized as four main variables to measure the satisfaction of the householders. For the primary data, a questionnaire survey was conducted among 100 householders chosen randomly in the Lakmuthu Sevana housing scheme. Using elementary statistics, data were analyzed descriptively. The study specifically attempts to identify key factors that affect householder's satisfaction. This was achieved through householder's point view. Secondly, it was attempted to analysis the significant level of the factors that affect the householder's satisfaction. Thirdly, it was attempted to identify issues faced by the subject community. According to the overall result of analysis, householders were satisfied with physical features, service quality, public facilities and social environment of housing scheme they reside. Also they are suffering from some main problems such as "building maintenance issue", "garbage issue" and "noise pollution in the area. In other words these are the facts on which a sever dissatisfaction was arisen among the residence.

Keywords: Householder's Satisfaction, Low-income Housing, Physical features, Service quality, Public facilities, Social environment

**The Condition of Drinking Water, Hygiene and Sanitary Facilities in
Schools governed by the North Central Provincial Council in
Anuradhapura District**

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It has been found that many developing countries are being facing many issues related to the sanitation and health care. According to the recognized researches the condition of Sri Lanka not toughly bad though it is a developing country. However it has been found that completely different condition when considering the condition of drinking water and sanitation facilities in schools, especially in the schools in the rural areas. Therefore this study was focused to find out the adequacy and utilization of water, hygiene and sanitary facilities in selected in Anuradhapura District managed by the North Central Provincial Council. Three methods were used for the collection of data namely; questionnaire survey, in-depth interviews and observations. The respondents were the school teachers and students. The availability of hygiene facilities has been found low in both urban and rural schools. It has been found that considerable gap when considering the compliance of sanitation facilities with the accepted standards and also found that the awareness of school teachers on the sanitation standards is not satisfactory. As a whole it was found that there are many issues which should be addressed regarding the drinking water, hygiene and sanitation in schools.

Keywords: Water, Hygiene and Sanitary Facilities, Schools, Standards

The impact of professional and ethical Standards on the performance of practicing valuers

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Abstract

Professional valuers should demonstrate that they; accept

- Act with integrity
- Always provide a high standard of service
- Act in a way that promotes trust in the profession
- Treat others with respect
- Take responsibility

However, regardless of the above factors that should be demonstrated by valuers, there are certain instances where the acceptable ethical behavior is not agreeable.. But because of the lack of knowledge of the clients on the valuation procedure, they do not come forward to complain of them. Hence this study examines the level of understanding of the ethics by Professional valuers, the availability of the ethics among valuers, threats and safeguards for following ethics. Primary data were collected from professional valuers namely the members of the Institute of Valuers , practicing Sri Lanka in Colombo District through the questionnaires and Secondary data were obtained from the Institute of Valuers Sri Lanka. And also,descriptive analysis was used for the data analysis.The study found that,the understanding of Ethics mentioned in Sri Lanka Valuation Standards are in moderate level. And the level of understanding gradually increases with the seniority.Professionals followed almost non-fundamental and situational approaches in their ethical decisions backed by religious, spiritual perceptions and in the government working environment since the absence of juridical background prior to the introduction of SLVS – 2015.This study also identified that Major threats to follow ethics in Valuation Profession areSelf Interest threat, Self-review threat, and Advocacy threat.At the same time,to improve the ethics in valuation profession the study recommend a

ranking system for valuers based on number of valuations per annum reported and their gravity, continues professional development programs (CPD) held by IVSL should update to fill the knowledge gap,existing Sri Lankan valuation standards – 2015 (SLVS-2015) should be legalized being mandatory to abide by all members,The communication network between the banks and IVSL have to be strengthened being easy to file complaints on unethical practices by professional valuers and proper channel of inquiry and disciplinary action is essential disregarding the valuer's status, A proper system of teaching valuers on ethics at degree level, training in work camps, and encouraging a lifelong learning system.

Keywords: Valuation, Professional Ethics, Understanding, Threats, Safeguard, Institute of Valuers Sri Lanka

Employee Satisfaction on Green Building Practices in Apparel Industry

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Abstract

Energy efficiency was firstly commanded for commercial buildings in the world. However convincing all building owners about adopting sustainability measures has not been fully realised. Sustainable building owners benefits from reduced operating costs during building life cycle. Increased energy efficiency in the form of insulation, energy efficient light fittings, sophisticated Building Management Systems (BMS), micro-generation such as solar and wind turbines all result in measurable quantifiable reductions in operating costs for owners and tenants. Adoption of sustainable office building practises deliver increased employee productivity. This study aims to determine the satisfaction level of employees on green building practises. Employees being more satisfied with their work environment in green buildings compared with conventional ones. Employee satisfaction is an important consideration for operations to boost service quality and customer satisfaction. Increased productivity can leads to benefits such as financial savings resulting from reduced absenteeism, improved product quality, increased rates of production and increased sales. Green building designs and standards are developed to maintain the energy efficiency, and minimize energy and wastes. This study will allow property stakeholders, including government policy makers and investors/ developers to better understand the optimal type and level of sustainability to be incorporated in to the built environment.

Key Words: Sustainable Building, Employee Satisfaction, LEED Certification

Satisfaction on high rise living: A case study in Muwadorauyana Low Income Housing Project

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Abstract

Provision of adequate domestic space for low income people is a challenge faced by the governments in any country. It is critical in urban areas compared to rural areas due to the limited space. Therefore the current trend is to promote high rise living. It is continuously discussed that people who are living in high rise buildings face with some social problems and are living with dissatisfaction. Several high-rise buildings are constructing for residential purposes for low income groups in and around Colombo. The satisfaction of people is not adequately researched. This study mainly focuses on identifying the satisfaction level of low income people living in high rise buildings. The data obtained from a stratified random sample of 80 residences of Muwadorauyana low income, high rise housing complex in Colombo. The level of satisfaction was analyzed on factors such as on the housing unit and physical features, support services, public facilities, social environment, housing conditions and neighborhood. The findings of the study mean values indicate that the levels of resident satisfaction are generally higher with neighborhood facilities (4.62) and housing conditions (4.48). The contributing factors for lower levels of satisfaction with the public facilities (3.12) and social environment (3.25) are lack of children's playgrounds (1.67) and open spaces (2.87), lack of vehicle parking area (1.97) and security of parking (1.93) , mental stress (3.23) and higher noise level (2.15). According to the Pearson's correlation analysis the existence physical features ($r = 0.635$, $p < 0.01$), support services ($r = 0.548$, $p < 0.01$), public facilities ($r = 0.334$, $p < 0.01$), social environment ($r = 0.459$, $p < 0.01$), housing conditions ($r = 0.428$, $p < 0.01$) and neighborhood facilities ($r = 0.270$, $p < 0.01$) are positively correlated with residential satisfaction. The noise is what most do not like about the built environment with 63.9% of

survey respondents identifying this as a key reason and another critical issue is lack of space (33.2%) as they occupy 450sqft of housing unit. For the successful low income resettlement project should pay attention towards the housing satisfaction, social and economic well-being. Overall satisfaction can be enhanced facilitated by housing components' as allocate sufficient spaces for children play areas, open spaces and vehicle parking, establish garbage warehouse. Some relocating housing projects become failure because of the physical and mental stress faced by the residents. Therefore to have successful low income resettlement project there should be mutual understanding between officials of local government, community leaders and other representatives.

Keywords: Residential Satisfaction, High-Rise Building, Low Income, Living High

Impacts of Inflation Rate on Rental values of Commercial Properties Case study in Dehiwala-Mount Lavinia

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Abstract:

An investor called upon to give his opinion as to the value of many different types of interest in many different types of property for many differing purposes. Unlike other asset class, commercial properties are type of properties that are owned to mother income. Commercial properties have higher value than other investment properties. Many factors determine the rent which a tenant pays for rental property. But inflation rate is widely effects to change the rental value of commercial properties. But like other developing nations, the Sri Lankan economy has also seen a great deal of changes in monetary values of its commodities, project and service change as an outcome of expected and unexpected inflation. The relationship between the inflation rate and the commercial property rental value has not adequately addressed in Sri Lanka. Inflation rate is considered as one of the economic factors that may has an effect on the rental values. This paper focuses on mainly to examine the effect of inflation rate on rents of Commercial properties based on Sri Lankan experience. The analysis was done with the data collected from randomly selected 82 numbers of properties from a buffer zone of 500 meters from Dehiwala city center through a structured questionnaire. The results show that the coefficient of correlation is only .393 and is a week positive relationship. Out of the other among factors considered, there are three factors have a most significant correlation. To identify the most significant factors among the rental value of commercial properties as Age of the property, Distance from city center, and Total floor area. The hopes that the results of this research have been able to provide a reasonably accurate picture of the inflation rate that influence rental values, and that the recommendations made, if adopted that inflation rate would have a lowest significant impact on rental values among other factors. Furthermore Age of the property, Distance from city center, and Total floor area the most significant factors among the rental value of commercial properties.

Keywords - Rental Value, Inflation Rate, Land Use, Commercial Properties

Study on Challenges of Housing Development for Low Income Community in Colombo City

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Abstract

The main purpose of this study was to identify the challenges of housing development for the low income population in city of Colombo. Challenges were identified in the point of low income people view. The major objective of the study was to identify the challenges faced by low income people when they access housing in city of Colombo. Following specific objectives had to be completed in order to achieve the major objective of the study. The specific objectives are identifying the current housing statues of the low income people in a city of Colombo, identifying the expected housing information of the low income people and identifying the overall challenges to low income people. Moreover, some suggestions of the low income households were presented to overcome the identified challenges. For the data collection, 80 low income households were selected. Structured questionnaires and unstructured interviews were used to gather data from the respondents. The findings of the research considering the housing satisfaction related to the Physical Condition of the House, it has been identified that it is in dissatisfied level and the data analysis revealed that their houses haven't met the minimum requirements of a house such as lighting, ventilation, separate rooms, separate kitchen and sanitary facilities. As per expectations of the respondents, most of them expected houses with minimum requirements and it was found that most of them do not have the capability of constructing their own houses. Reasons for this scenario are mainly identified under two main categories. They are financial status and personal attitudes. Under finance status, nature of the employment, less disposable income, rising cost of land and material cost are identified as sub elements. By holding unstructured interviews, under personal attitudes, sub

elements such as reluctance to the change residence, existing social background, less education level and positive thinking were identified. Finally, as per the identified challenges and respondents' opinions followings can be recommended as suggestions to overcome the identified challenges. They are introducing interest free or low-interest housing loans and flexible finance methods and providing land & housing schemes by the government.

Keywords: Challenges, Low Income People, Housing Issue



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