

SOCIAL RETURN ON INVESTMENT (SROI) FOR “NEW PERMANENT  
HOUSING” (RKB) PROJECT IN KUALA KRAI, KELANTAN

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## DEDICATION

Every challenging work needs efforts as well as guidance of elders, especially who were very close to my heart. I would like to dedicate this piece of work to:

*My beloved parents,*

**TEO SENG WOO & TOH SIEW YAN**

*Thank you for the unconditional love, support, encouragement,  
and make me able to get such success and honour.*

*My respected supervisor,*

**ASSOC. PROF. DR. SEOW TA WEE**

*Thank you for the invaluable supervision, tutelage, and support.*

*My dearest sister,*

**TEO JES SHE**

*Thank you for the endless support and encouragement.*

*My internal and external panels,*

*and my dearest friends, especially*

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## ABSTRACT

In December 2014, Malaysia was hit by a massive flood that brought long-term social, economic, and environmental impacts to both individuals and communities. These impacts therefore lead to a decision being made by the Malaysian government to establish a flood recovery project named “New Permanent Housing” (RKB). Indeed, almost everyone agrees that RKB project enhances people’s lives and generates social benefits. However, there is insufficient evidence to support this, and there is no consensus on what that return is or how it might be measured. In this regard, social return on investment (SROI) can give a clear and succinct message about the project’s impacts by assessing social, economic and environmental values. This study uses analyses of specific case studies as a guiding thread to demonstrate how the application of SROI can help identify the project’s social added value and the changes experienced by key stakeholders. The four (4) objectives of this study are to identify the key stakeholders in the RKB project; define relevant data for demonstrating the impact map for the RKB project; evaluate the SROI on the implemented RKB project in Kuala Krai, Kelantan; and propose the use of the SROI method by the Malaysian government to assess the social benefits of investing in flood management projects. Research instruments such as key informants interview (KII), survey questionnaire (SQ), library search, and evidence from existing literature or projects were used. A total of 162 household units from four RKB projects in Kuala Krai, Kelantan, and three representatives from the Malaysian Federal Government (NADMA and JKR) were selected as the respondents. The qualitative and quantitative data were analysed by using SROI analysis. The results of this research show that investing in RKB projects generates an SROI of more than 1.0 in social value for the beneficiaries and provides a range of opportunities to support the sustainable development of communities. Therefore, it was concluded that SROI is applicable to government flood recovery projects in Malaysia, which will help to reveal the hidden sustainable value of changes in social investment.

## ABSTRAK

Pada Disember 2014, Malaysia dilanda banjir besar yang memberi impak sosial, ekonomi dan alam sekitar jangka panjang kepada individu dan masyarakat. Oleh itu, pihak kerajaan Malaysia telah melaksanakan projek pemulihan pasca banjir yang dinamakan "Rumah Kekal Baharu" (RKB). Sesungguhnya, hampir semua orang bersetuju bahawa projek RKB meningkatkan kualiti hidup masyarakat dan menghasilkan kesan sosial. Namun, tiada bukti mencukupi untuk dakwa kes tersebut dan belum ada kesepakatan bersama tentang pulangan sesuatu pelaburan projek atau bagaimana pulangan tersebut diukur. Justeru, penilaian nilai pulangan sosial terhadap pelaburan (SROI) dapat menyampaikan mesej yang jelas mengenai impak projek melalui penilaian nilai elemen sosial, ekonomi dan alam sekitar. Dengan menggunakan analisis kes kajian tertentu, kajian ini menunjukkan cara aplikasi kerangka SROI dalam mengukur nilai pulangan sosial yang diperolehi daripada pelaburan projek dan perubahan yang dialami oleh pihak berkepentingan. Empat (4) objektif dalam kajian ini adalah untuk mengenal pasti pihak berkepentingan utama bagi projek RKB, menentukan data relevan bagi membina satu peta impak bagi projek RKB, mengukur nilai pulangan pelaburan projek RKB yang dilaksanakan di Kuala Krai, Kelantan, dan mencadangkan kaedah SROI kepada pihak kerajaan Malaysia bagi mengukur nilai pulangan sosial yang diperolehi daripada pelaburan projek pengurusan banjir. Instrumen kajian seperti wawancara, kajian soal selidik, kajian perpustakaan, dan bukti dari literatur atau projek digunakan. Sebanyak 162 isi rumah dari empat projek RKB di Kuala Krai, Kelantan dan 3 wakil Kerajaan Persekutuan Malaysia (NADMA dan JKR) dipilih sebagai responden. Data kualitatif dan kuantitatif dianalisis dengan menggunakan analisis SROI. Hasil kajian menunjukkan bahawa pelaburan dalam projek RKB berupaya menjana nilai pulangan sosial dengan nisbah SROI lebih dari 1.0 dan juga memberikan peluang untuk menyokong pembangunan komuniti lestari. Justeru itu, didapati bahawa SROI boleh diaplikasikan dalam projek pemulihan pasca banjir di Malaysia serta dapat mendedahkan nilai perubahan lestari yang tersembunyi dalam sosial pelaburan.

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## LIST OF SYMBOLS AND ABBREVIATIONS

CBA	Cost Benefit-Analysis
CFE-DM	Centre for Excellent in Disaster Management and Humanitarian Assistance
CREED	Centre for Research on the Epidemiology of Disasters
DID	Department of Drainage and Irrigation
DMC	Disaster Management Cycle
<i>et al.</i>	and other people
GFDRR	Global Facility for Disaster Reduction and Recovery
IBS	Industrialised Building System
JKM	Social Welfare Department
JKR	Public Works Department
KIs	Key Informants
KII	Key Informant Interview
KIIs	Key Informant Interviews
MERCY	Malaysian Medical Relief Society
n	Number of Sampling
NADMA	National Disaster Management Agency
NEF	New Economic Foundations
NGOs	Non-governmental Organisations

NSC	National Security Council
REDF	Roberts Enterprise Development Fund
RKB	New Permanent Housing
RM	Ringgit Malaysia
ROI	Return on Investment
SIAA	Social Impact Analysis Association
SROI	Social Return on Investment
SQ	Survey Questionnaire
SQs	Survey Questionnaires
TBL	Tripple Bottom Line
ToC	Theory of Change
UK	United Kingdom
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
WHO	World Health Organization



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## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Globally, flooding is one of the most destructive natural phenomena resulting in catastrophic losses of life and property. Malaysia, one of the states in Asia, tends to be especially vulnerable to floods (UNISDR, 2010). The increased frequency of flooding has had a significant impact on the decisions made by the Malaysian government to invest huge sums of money in a sustainable flood recovery project known as the “New Permanent Housing” (RKB) project (Social Welfare Department, 2014).

RKB is a Malaysian Federal Government-funded post-flood rebuilding project aimed at providing the best livelihood for flood victims of the December 2014 flood and a range of opportunities to build a sustainable future (Niazi & Anand, 2010; Roosli & Collins, 2016). However, there is inadequate evidence to support the case, as no benefit calculations have been made by the Malaysian government to prove that such a project truly benefits communities and generates social value. As indicated by Ramli *et al.* (2016), social value is often overlooked in calculations due to the absence of appropriate metrics, such as social return on investment (SROI).

SROI is an internationally recognized method for measuring the value of outcomes generated by investments. SROI encompasses a much broader concept of how change is created and calculates the benefit-to-cost ratio by measuring the social, economic, and environmental costs and benefits in terms of monetary value. As

previously stated, the RKB projects are associated with various social, economic, and environmental benefits. In this regard, the SROI methodology seems to provide critical insights when used to assess the hidden sustainable value created by a project. Therefore, this study aims to apply the SROI methodology to evaluate the social value of four different RKB projects invested in by the Malaysian government in Kuala Krai, Kelantan. By evaluating the social value of investments in the RKB projects, the effectiveness of this investment can be justified; it was demonstrated that RKB projects can support the sustainable development of communities.

## 1.2 Research Background

On a global basis, floods are rising at an alarming rate, resulting in enormous damage and tremendous losses that will affect many lives. The United Nations Office for Disaster Risk Reduction (UNDRR) and Centre for Research on the Epidemiology of Disasters (CREED) (2018) reported that floods were the most frequent type of disaster – 3,148 of the 7,255 disaster events recorded between 1998 and 2017 were floods, which also affected more than two million people over past 20 years, which is the most of any type of disaster (Wallemacq & House, 2018). The Southeast Asian region has long been known as the most flood-prone region in the world. Among the countries in Southeast Asia, Malaysia has been making headlines when it comes to floods. As reported by Zurairi (2018), the assistant news editor for Malay Mail, floods have caused the most carnage in Malaysia, affecting over 770,000 people, killing 148 people and causing RM 5.82 billion in damage in the last 20 years.

In December 2014, Malaysia was hit by a massive flood called “*Bah Kuning*”, due to its high mud content. This flood was the worst in Malaysia’s history and was considered a “tsunami-like disaster”, which affected more than 200,000 people and took 21 lives. As declared by Omran & Schwarz-Herion (2018), Kelantan state was the worst hit by the flood that happened in Peninsular Malaysia. This event was confirmed by Malaysia’s National Security Council (NSC) as the worst flood in the state’s history (Azlee, 2015). Keeping in view that this enormous flood endangered the effective functioning of a community and society through social, economic or



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