

DESIGNING INTEGRATED ZAKAT-WAQF MODELS FOR DISASTER MANAGEMENT

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ABSTRACT

This study aims to analyze four previous conceptual models associated with zakat and waqf by Indrawan *et al.* (2018), Ascarya *et al.* (2018), Tanjung (2018), Hassan (2010), design various Integrated Zakat and Waqf Models for disaster management, and evaluate them as best model which is most suitable in community, local, and national scopes. In-depth interviews and literature study from relevant sources were conducted to develop the models. The proposed models are called Integrated Zakat and Waqf Model for Disaster Management (IZWDM) that involves of social and commercial aspects provides of three alternative models according to three steps of disaster management namely IZWDM-A for *Relief* step; IZWDM-B for *Recovery* step; and IZWDM-C for *Reconstruction* step. This study is expected to enhance all parties to establish more synergy in managing disasters often occurring in Indonesia.

Keywords: Zakat; Waqf; Integration; Venture Capital; Disaster Management.

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I. INTRODUCTION

1.1. Background

Indonesia has faced serious impacts from many disasters, such as earthquakes and tsunamis. Natural disasters in Lombok, Bali, Sumbawa and East Java caused 468 people to die. Furthermore, 1.054 people have been injured, with 431.426 internally displaced after first earthquake hits on August 5th 2018 by a magnitude 7 Richter's Scale (BNPB, 2018). Number in detail of Lombok's earthquakes impacts shown on table follow.

Table 1.
Victim Data of Lombok, Bali, Sumbawa and East Java Earthquakes

Areas	Died	Houses Damaged	Internally Displaced persons	Injured	Damaged Public Facilities
Mataram	9	754	18.894	63	99
West Lombok	39	25.540	116.453	399	35
North Lombok	404	24.989	178.122	829	206
Central Lombok	2	4.767	13.887	3	42
East Lombok	12	25.540	104.060	122	58
West Sumbawa	-	1	-	-	-
Bali Province	2	222	-	-	-
Total	468	81.813	431.426	1.054	234

Source : BNPB, 2018

Very recent natural disasters took place in Palu Donggala, Sulawesi. On October 1th 2018, massive earthquakes of a magnitude 7.5 SR and tsunamis killed some 1.763 people and injured 2.549, with 113 still missing and 152 still buried under debris. The disaster destructed almost 66.000 homes, and approximately 71.000 residents were internally displaced (BNPB, 2018). The tsunami in Palu Donggala was recorded as the sixth most fatal tsunami to strike the country since the enormous 2004 Indian Ocean tsunami (Sutopo, 2018).

Moreover, updated total estimation damage of Palu and Donggala region reached 24.673,2 billion rupiahs in several sectors as follows.

Table 2.
Victim Data of Palu and Donggala Earthquakes and Tsunami

Areas	Infrastructure	Industry	Holticulture	Farm
Palu				
West Palu	19%	48%	40%	39%
East Palu				
North Palu				
Mantikulo	23%			
Donggala				
Dampelas				23%
Sindue			38%	
Tambusabora				
Tanantovea			30%	
Sindue Tobata			32%	
Banawa Selatan	12%			

Source : BAZNAS, 2018

As a country located in the Ring of Fire, Indonesia has suffered more deaths and losses from earthquakes, tsunamis and other kinds of natural disasters. Essentially, the responsibility of disaster management is not only in the hand of local government where the disaster occurs, but it is the responsibility of all related parties or stakeholders. Based on BNPB calculations, the ideal disaster emergency response funds amounts to 15 trillion rupiahs per year considering our disaster-prone country. However, the emergency response funds available for 2018 were only 4 trillion rupiahs. It was difficult for BNPB to carry out various emergency response, rehabilitation and post-disaster reconstruction activities. The lack of funding also affects the stages of disaster preparedness (Nasir, 2018).

Besides APBN and APBD through BNPB and local government, Islamic philanthropists play important roles in disaster management. National Zakat Board (BAZNAS) as zakat institution, and other Islamic Non Government Organizations (NGOs) in zakat management, such as Dompot Dhuafa (DD), Rumah Zakat, Al Azhar Peduli Umat (APU), as well as NGOs in waqf management, such as Global Waqf, NU Waqf, Muhammadiyah Waqf and Al Azhar Waqf, play an important role in providing a better life for the affected. The development of waqf is part of social obligations that could improve the quality of life of the zakat recipients. The concept of participating in the program is important to obtain greater utility (Zaenal et al, 2017).

Moreover, Chachi (2015) stated that the well-managed zakat and waqf could be important economic tools. Zakat and waqf could eradicate poverty, reduce government spending, and contribute towards better socio-economic justice and development. In the disaster management context, integrating zakat and waqf is the right combination to create in overcoming this problem, both in social and commercial aspects.

1.2. Objectives of the study

The objectives of this study are two folds. Firstly, the study will analyze four conceptual models from senior scholars related to roles of integrated zakat and waqf that are considered the suitable and appropriate models as main references to conduct new proposed models for disaster management by author. They were IZWMR Model by Indrawan et al. (2018); IWVC Model by Ascarya (2018); WVCF Model by Tanjung (2018); and Hassan's (2010) Model. Secondly, the study will design various Integrated Zakat and Waqf Models for disaster management, evaluate them and propose the best model that is most suitable according to each different condition both regionally and nationally or even globally.

II. LITERATURE REVIEW

2.1. Disaster Management

A natural disaster is the occurrence of an abnormal or infrequent hazard that affects vulnerable communities or geographic areas, causing substantial damage, disruption, and perhaps casualties and leaving the affected communities unable to function normally (Benson and Clay, 2008). It is a nature incident that no people desire. Various natural disasters, such as earthquakes, floods, tsunamis, storms

and others, cause serious damages on infrastructures, public facilities, housing, agricultures and farms.

Soedibyo (2018) explains that disaster management in common involves of four steps: First, *Rescue* (fast and precise rescue efforts); Second, *Relief* (assistance to basic needs to restore victims independence); Third, *Recovery* (return of conditions before a disaster occurs); and Fourth, *Reconstruction* (return of conditions before a disaster occurs).

Based on such steps of disaster management, the disaster recovery is considered as one of the important parts. Disaster recovery is the process of recovering damages conditions following a natural disaster. Meanwhile, Lindell (2013) divides disaster recovery into three distinctions. Firstly, a goal that involves the restoration of normal community activities that were disrupted by disaster impacts – in most people’s minds, exactly as they were before the disaster struck. Secondly, a phase in the emergency management cycle that begins with stabilization of the disaster conditions (the end of the emergency response phase) and ends when the community has returned to its normal routines. Thirdly, there should be a process by which the community achieves the goal of returning to normal routines.

In the meantime, Beik (2018) briefs that disaster recovery becomes third step of four stages of post disaster management besides rescue: relief and reconstruction. Environmental and climate hazards, such as floods, earthquakes, tsunamis increasingly cause serious damages of Indonesian regions. By his result research, Lindell (2013) addresses the disaster recovery function as follows.

Table 3.
Disaster Recovery Function

Disaster assessment	
<ul style="list-style-type: none"> • Rapid assessment • Preliminary damage assessment • Site assessment 	<ul style="list-style-type: none"> • Victims’ needs assessment • “Lessons learned
Short-term recovery	
<ul style="list-style-type: none"> • Impact area security • Temporary shelter/housing • Infrastructure restoration • Debris management 	<ul style="list-style-type: none"> • Emergency demolition • Repair permitting • Denotions management • Disaster assistance
Long-term reconstruction	
<ul style="list-style-type: none"> • Hazard source control and area protection • Land-use practices • Building construction practices • Public health/mental health recovery 	<ul style="list-style-type: none"> • Economic development • Infrastructure resilience • Historic preservation • Enviromental recovery • Disaster memorialization
Recovery management	
<ul style="list-style-type: none"> • Agency notification and mobilization • Mobilization of recovery facilities and equipment • Internal direction and control • External coordination 	<ul style="list-style-type: none"> • Public information • Recovery legal authority and financing • Administrative and logistical support • Documentation

Source: Lindell (2013)

The recovery process involves both activities that are planned before a disaster strikes an impact and improvised after disaster impact. Disaster recovery encompasses multiple activities, some implemented sequentially and others implemented simultaneously. Most people's goal in disaster recovery is to restore household assets, businesses, and government activities back to the "normal" patterns before the disaster strikes.

The disaster management system consists of three elements, i.e., legislation, institutions and funding. In terms of legislation, Law No. 24/2007 concerning Disaster Management is the starting point for creating a disaster management system. For institutions, the government issued Presidential Regulation No. 8/2008 on the National Disaster Management Agency (BNPB) which functions to coordinate planned, integrated and comprehensive disaster management. Sources of funding through APBN or APBD, contingency funds, ready-to-use funds, social assistance funds with a pattern of grants, funds sourced from the community, as well as international community support funds (Nasir, 2018).

2.2. Disaster Management in Islamic Perspective

In Islam, disasters are acts of God (Allah) or disasters are God's will or expression of His wrath. Note that there has been no statement by the Prophet Mohammad (PBUH) ever mentioned that earthquakes or other disasters are expressions of the wrath of God or a result of acts of disobedience or infidelity. In fact, there were many statements that show the need to prepare for disasters and prevent from happening (Ghafory-Ashtiany, 2009).

Qur'an reveals that Islamic teaching can be adapted to the principle of disaster risk reduction among religious societies. The most important part of God's bounty to human beings is His guidance, ability, wisdom and knowledge, given in order for people to do good deeds and based on knowledge and cognition, the effects of "good deeds" and "bad deeds" (Rahmanto, et al., 2016).

2.3. The Concept of Zakat and Waqf

Al Qardawi (2000) defines Zakat means 'growth', 'increase', or 'purity' of wealth. When the context is a person, it means 'to improve' or 'to make better'. It is also interpreted as 'blessing', 'growth', 'cleanliness', 'praise' and 'betterment'. Beik (2011) stated that zakat has three principal dimensions, i.e., spiritual, social and economic dimensions. Currently, zakat distribution in Indonesia always related to social and economic dimension as well.

Kahf (2000) identifies two model of zakat management in contemporary Muslim countries: the compulsory model and the voluntary model. Indonesia is implementing voluntarily pay zakat through government agencies or the other legal agencies based on self-assessment and also through non-government institutions (Kasri and Putri, 2018). Furthermore, Beik (2014) describes the characteristic of zakat management scheme in various countries through table follow :

Table 4.
Characteristic of Zakat Management Scheme in Various Country

Characteristic of Collection	Full Government	Government linked institution (Corporation NGO)
Compulsary	Saudi Arabia, Pakistan, Kuwait, Yemen, Sudan, Libya	Malaysia
Voluntary	Bangladesh, Bahrain, Indonesia, Jordan	Singapore, Egypt, Algeria, Indonesia, South Africa

Source: Beik, et al. (2014)

Both zakat and waqf mechanisms are considered as concepts provided in Islam that serve people in need, i.e. the poor (Hassanain, 2015). Mohsin (2016) defines waqf is a financial charitable institution established by with holding ones property under (immovable or movable) to eternally spend its revenue on fulfilling different need depending on the choice and conditions made by the founder.

Meanwhile, Dogarawa (2009) briefs zakat and waqf are instruments instituted by Islam to combat poverty and enhance welfare in the society. Zakat generates a flow of funds and recruit the necessary manpower. At the same time, waqf provides the material infrastructure and creates a source of revenue for use in, among others, social welfare enhancing activities both at family and community levels. Senior scholars through their research agree that integration of zakat and waqf was good synergy in realizing social welfare.

Meantime, Tawfique (2016) briefs the Maqasid of Zakah and Awqaf on his research. The term *maqasid* (plural: *maqasid*) refers to “purpose, objective, principle, intent, goal, or end.” When referred to as the *maqasid al-Shari’ah*, the word denotes the purposes behind the rulings in the Shari’ah. However, with relevance to the *maqasid* of *zakah* and *awqaf*, the objectives would fall under the specific category of the *maqasid almu’amalat* (objectives of financial transactions). Among the broad objectives that the Islamic law of financial transactions and contracts commonly upholds, Ibn ‘Ashur (d. 1973) identifies five such *maqasid*: circulation of wealth.

2.4. Zakat and Waqf for Disaster Victims and Affected Areas

Poverty has been recognized as a complex and multidimensional phenomenon that extends beyond the notion of income and encompasses social, economic and political exclusion (Shirazi et al., 2015). As Qur’an mentions “*Alms are only for the poor and the needy, and those who collect them [zakat], those whose hearts are to be reconciled, captives, debtors, in the cause of Allah, and wayfarers...*” (Qur’an 9: 60). Refugees of natural disaster’s victims can fall within the categories of ‘the poor and needy’, as they abruptly lose the ownership of their houses, vehicles, farms, goods, shops, and other livelihood sources.

Ahmed (2004) examines the role of zakat and waqf in growth and development both at the macro-level and micro-level of economy. Zakat and waqf contribute in the macro-context to the improving of the human capital and designing of specific programs for the poor and the vulnerable, including education program, healthcare and social services.

2.5. Previous Studies

This study is inspired by recent incidents of natural disasters in Lombok, Palu, Sigi and Donggala. As such, the important role of integrated zakat and waqf in recovering disaster victims and disaster impacts areas reflects that no appropriate single model is currently available. Therefore, it uses some partially previous theories or schemes to construct the proposed models.

Indrawan et al. (2018) attempts Integrated Zakat and Waqf Model for Refugees, namely IZWMR. This was a scheme that integrates waqf and zakat, as well as Islamic commercial and social sectors to assist the refugee community to fulfill their basic needs and upgrade their capability, especially in doing business. It also aims to enhance business scale mobility into larger scale company, maintain the operational of Islamic financial industry and maintain sustainability of the program.

Meanwhile, Ascarya, et al. (2018) proposed various models of waqf-based Islamic financial institution (waqf-based IFI) using Delphi and ANP methods. Based on 28 characteristics of waqf-based IFI, the authors propose commercial, social and integrated waqf-based IFI, which could be in the form of bank, venture capital and cooperative. Moreover, these models could be implemented in the national level, community level and micro level, with some modifications. The main features of waqf-based IFI includes: 1) the majority equity must be cash waqf; 2) the third party funds could be the combination of social funds (such as, cash waqf, zakat and infaq) and commercial funds (such as, deposits, angel investments and member's deposits); 3) the main operations include Islamic commercial finance (investment, financing, and various other Islamic financial services) and Islamic social finance (zakat collection and distribution, waqf management, etc.). The findings indicate that Integrated Waqf-based IFI is preferred than commercial or social Waqf-based IFI. Moreover, waqf-based venture capital is preferred than waqf-based bank or waqf-based cooperative.

Additionally, Tanjung (2017) becomes one of main references in this study. The study conceptualized models based on content analysis of the profit and loss sharing modes they were *musyarakah* and *mudharabah*, operations of cash waqf, also venture capital strategies and then designated to suite Indonesian economy. He has some conceptual models that were waqf based-venture capital. Firstly, the capital of a venture company as pool of waqf fund. Secondly, placing waqf fund into third party fund. Finally, as combination of both that waqf fund can be pooled into the capital and/or into the third party-fund.

The study about disaster recovery is associated with the economic empowerment as well that using zakat and waqf sources to support the beneficiaries through consumptive and productive objectives. Therefore, it is confirms Ascarya's work (2017) in that it describes the collecting and managing of cash waqf from members, employees and the surrounding community, and subsequently used it for their designated purposes through various programs to support their consumptive and productive objectives by Baitul Maal. These programs include mentoring activities such as training and technical assistance, and also financial support through *qard financing*. Moreover, Hassanain's (2015) briefs the theoretical proposed model for structure of institutional of Islamic microfinance context. He conducted three models, which are zakat, and waqf sources for finance institution and also integrated of both of them that focus on poverty alleviation goal.

Ali et al. (2018) through their research reviewed the relevant literatures to develop and propose a conceptual scheme that was integration of zakat and waqf potential for real estate development that focus on developing asnaf. Their findings identified suitable elements such as cash waqf, baitulmaal funds and the involvement of CSR as the components to reinforce the integration; whereas, Hassan (2010) presents the zakat-waqf model with Islamic microfinance concepts. His criticisms of conventional micro-finance produced the concept of an Islamic micro-financing institution. He also attempted to synergize all framework of proposed model that sources of investment modes, funds and its management aspects.

Thaker *et.al.* (2017) concluded in his research that the crowd funding-waqf model (CWM) covers two primary parties, which are donors and waqf institutions. Public and huge audience involves into donors or crowd funder while the SIRC or Department of Waqf, Haji and Zakat (JAWHAR) involves into waqf institutions. Meanwhile Mikail *et al.* (2017) examined micro-takāful and discussed some pertinent Shari'ah issues and views of both past and present scholars in respect of utilization of zakāh and waqf in the micro-takāful model through qualitative-based research. They took the investigation further to discover its scheme of commonalities of social securities and economic support for beneficiaries.

Moreover, Hamber and Haneef (2017) explore the WSMVF model in Singapore. They attempted to find appropriate philanthropy institutions to adopt it. WSMVF was a model resulted by content analysis of cash waqf, venture capital and profit-loss sharing. It has operations and organizational structure that brings to the new features into the present foundation of Singapore's waqf.

Shirazi and Haneef's (2015) concluded their research about optimizing uses of waqf and microfinance in Pakistan. This topic area states huge constraints. It could be minimized if Islamic finance engaged of formal financial system. They argued that the beneficiaries were not realizes of principles components of waqf-microfinance. Meanwhile the professionals and practitioners voicing about formulating policies consideration of it.

According to Haneef's (2015) result through his survey, he found significant relationships among IsMF, takaful, human resources development, project financing and also waqf resources. Synergy of these components could alleviate poverty that manifested into a model namely Integrated waqf-based Islamic microfinance model (IWIMM). Furthermore, Chowdhury et al. (2012) identifies four issues of *waqf* management in Malaysia: waqf accumulation, waqf manager qualification (*mutawali*), idle waqf wealth, and insufficient acceptance of *waqf* to finance *waqf* management operations. Through their results, there were recommendations. Firstly, improving waqf management mainly focus on mutawalli skills and; Secondly, improving uses of waqf assets for more productive micro-social businesses.

Finally, Ghafory-Ashtiany (2009) explained the connectivity between the guiding principle of earthquake risk reduction and the views of Islam on disaster. They state that disasters are Allah's will, and they have to be understood as a reminder for human being. People has to be grateful of God's bounty, universe and its contents inside universe and its contents includes that has to care of disaster risk management, disaster reduction and environment protection issues

for safety life purposes. It was strongly associated with other results highlighting the dissemination of this type of knowledge has helped to clear the misconceptions and increase people's understanding of and knowledge about disaster-related issues; as a necessary step in the process of disaster risk reduction and improving safety and development, all of which can be viewed as demonstrations of God's love for human kind.

III. DATA AND METHODOLOGY

3.1. Data

The data in this research were both primary data by interviews to gather some statements from experts who were practitioners in the field of zakat and waqf and secondary data that referred to documents, such as scientific journals, books, newspaper articles about disasters, and social and commercial funds.

3.2. Methodology

This study applies analytical descriptive method, mainly by employing in-depth interviews with various experts in the field of zakat and waqf, such as National Zakat Board (BAZNAS), Indonesian Waqf Board (BWI), as well as academicians to acquire their valuable knowledge and insight on the issue. Furthermore, the desk study is also applied from many literatures, particularly literatures on the latest disasters news of Lombok, Palu, Sigi and Donggala, as well as literatures on contemporary zakat and waqf.

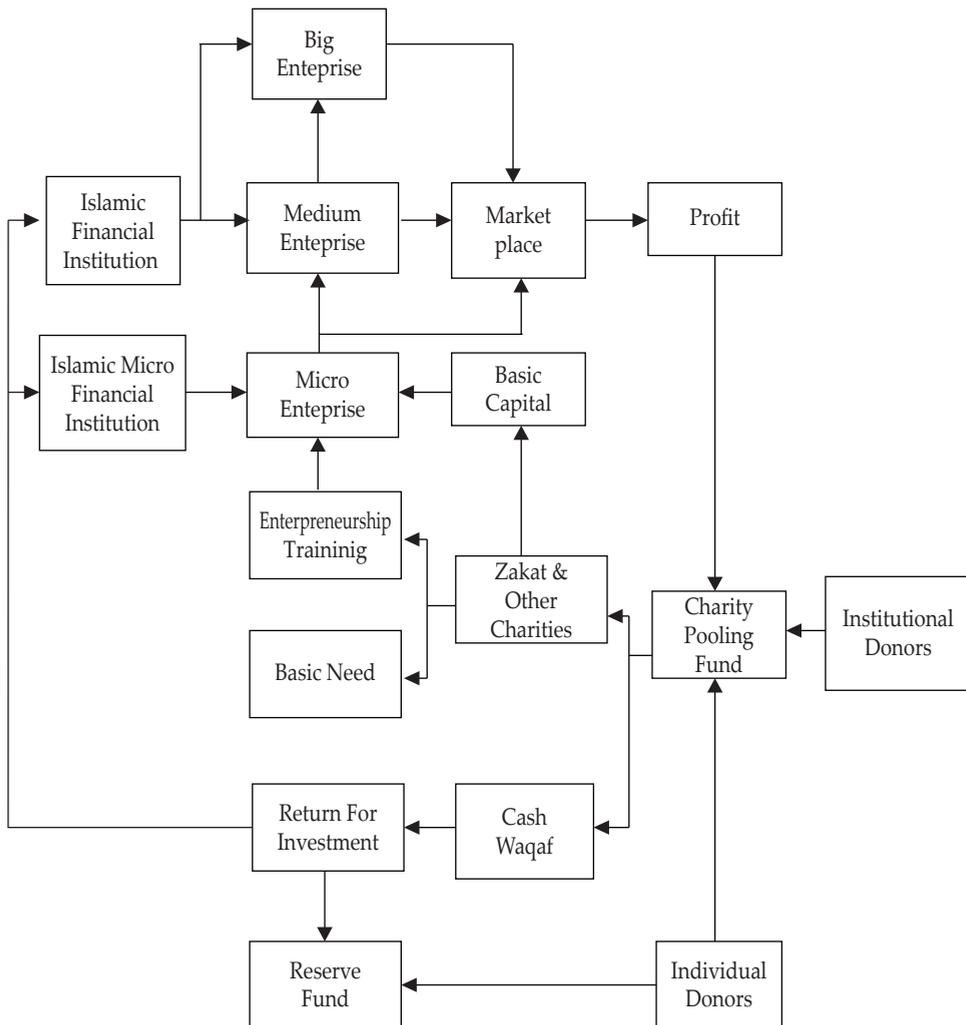
IV. RESULTS AND ANALYSIS

4.1. RESULTS

4.1.1. Conceptual Models of Integrated Zakat and Waqf by Some Scholars

A. An Integrated Zakat and Waqf Model by Indrawan *et al.* (2018)

The integration of zakat and waqf model developed by Indrawan *et al.* (2018) is called IZWMR, as a proposal to improve livelihood of global refugees that were conflicts victims. This is relevant model that considered to support the construction models by author in tackle the disaster victim. The modus operandi of IZWMR can be seen below.



Source: Indrawan, *et al.* (2018)

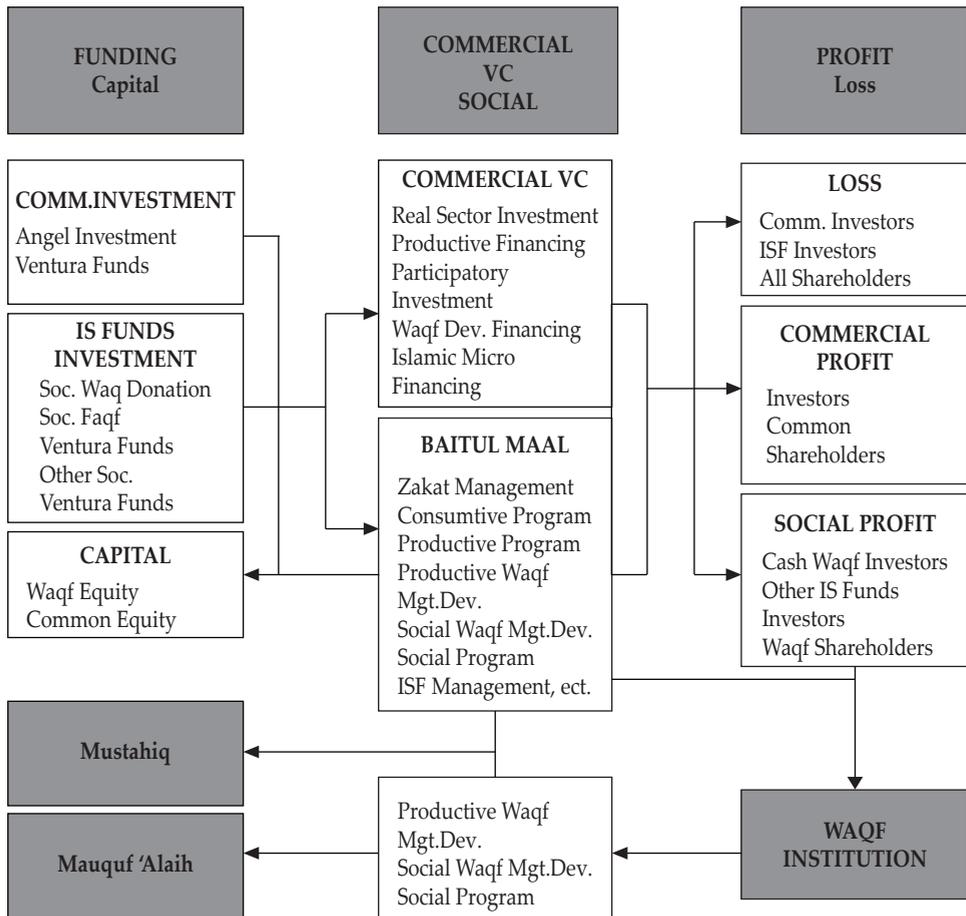
Figure 1. Integrated Zakat and Waqf Model for Refugees (IZWMR) Scheme

IZWMR started when institutional donors and individual donors donate their funds into the manager of the scheme (Indrawan *et al.*, 2018). While institutional donors' fund solely channeled to charity pooling fund, individual donors will be channeled into charity pooling fund and reserve fund. There are three utilization purposes of zakat and other charities fund: (1) to fulfill basic needs for the refugees to maintain the livelihood, especially for disability and senior citizens who cannot build-up business due their inability; (2), to finance entrepreneurship training for refugees to enhance their capability; and (3) to provide basic capital for entrepreneurship training program alumni. The basic capital can be provided on the basis of *hibah* or *qard al-hasan*. There are similar conditions between global

refugees which are victims of conflicts and those of internally-displaced due natural disasters, which is appropriate become main model reference.

B. Integrated Waqf-Based Venture Capital (IWVC) Model by Ascarya *et al.* (2018)

IWVC is an integrated Islamic commercial and social venture capital – IICSVC (inspired by BMT) owned by several WIs, as majority shareholders, and common shareholders. It focuses on extending financing to general public and investing in the real sector commercially, as well as performing a full range of ISF management, especially zakat and waqf, in separate unit of Baitul Maal to uplift socio-economic condition of the poor people and the community. Commercial Venture Capital provides productive financing, Islamic micro financing and participatory investment commercially to general public, as well as provides waqf development financing to develop productive waqf.



Source: Ascarya *et al.*, 2018

Figure 2. Integrated Waqf-Based Venture Capital (IWVC) Model

The balance sheet of IWVC (see Table 5) is much similar to the balance sheet of SWVC, where the Baitul Maal unit will manage Islamic social funds donation. The activities of ISF by the baitul Maal could be less effective if IWVC is not allowed to act as Amil of zakat and nadhir of waqf. If that is the case, the collection of ZIS-Waf funds is not possible, except through social waqf donation, social waqf venture funds and other social venture funds. However, assuming that IWVC is allowed to have Baitul Maal Unit within the bank, and the Baitul Maal is allowed to become Amil of zakat and nadzir of waqf, the ISF activities of Baitul Maal would be effective.

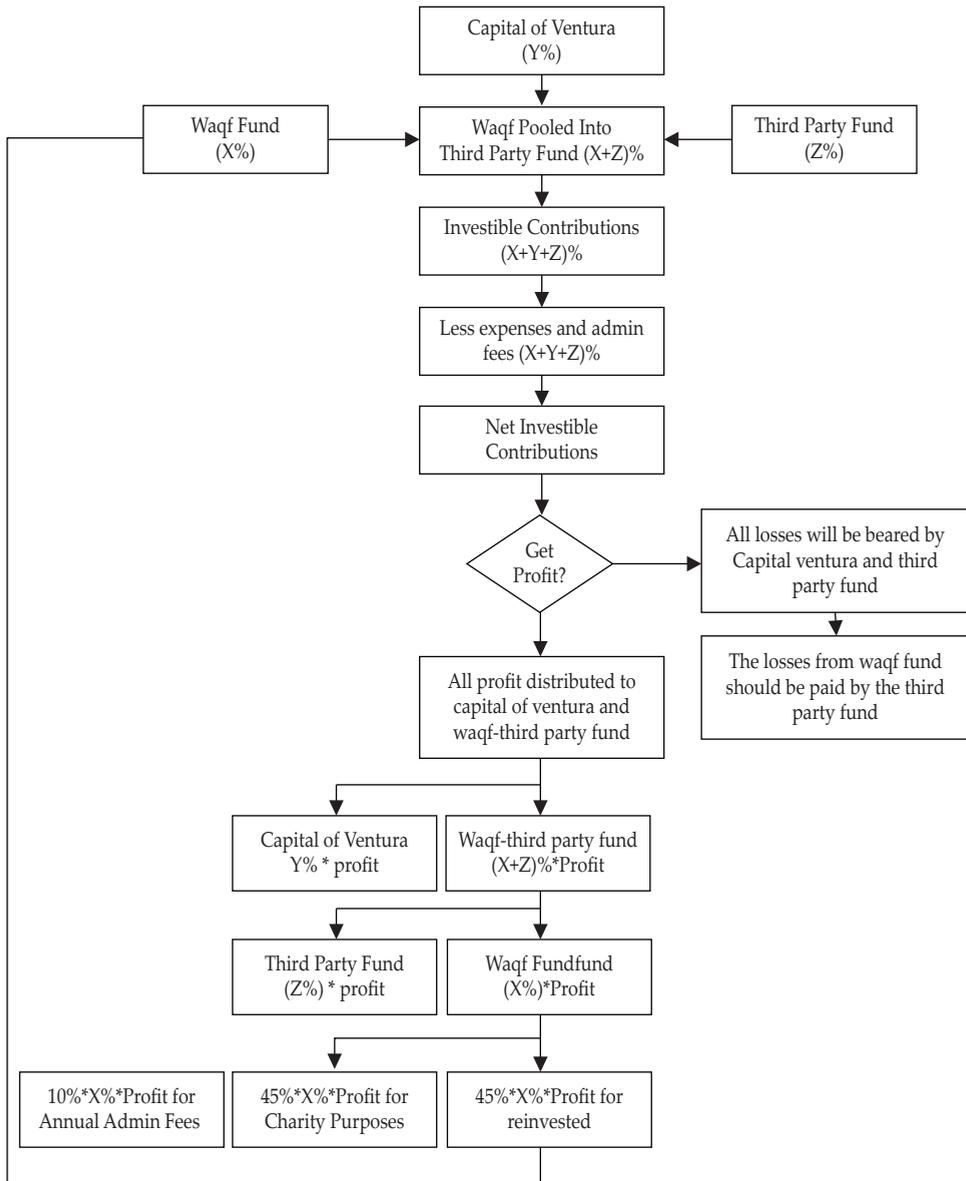
Table 5.
The Balance Sheet of Integrated Waqf-Based Venture Capital (IWVC) Model

ASSETS	LIABILITIES
<ul style="list-style-type: none"> • Cash • Bank Deposits • Receivables (Murabahah, Qardh, etc.) • Financing (Mudharabah, Musharakah, etc.) • Grameen Financing • Micro Financing 	<ul style="list-style-type: none"> • Angel Investment • Venture Funds • Angel Waqf Investment • Waqf Venture Funds • Social Waqf Donation • Social Waqf Venture Funds • Other Social Venture Funds
<ul style="list-style-type: none"> • Inventory • Investment • Fixed Assets 	<ul style="list-style-type: none"> • Waqf Equity • Reserves • Common Equity

Source: Ascarya *et al.*, 2018

C. Waqf of Venture Capital of *Shari'ah* Funds (WVCSF) Model by Tanjung (2018)

The Waqf Venture Capital Financing (WVCSF) model by Tanjung (2018) can be identified in Figure 3. The donor contribution consists of 3 types, namely: *baitul maal*, corporation and community. This contribution was the comparison of other model namely WSMVF that minus of costs and administrative costs, entered into a contribution that can be invested. Such investments were not invested into the monetary sector, but more so in the real sector. In this model, the investment profit was divided into three parts: (1) 10% for admin fee; (2) 80% for the WSMVF endowment; and (3) 10% to re-investing. In so doing, waqf capital is expected to gain increase on the future.



Source: Tanjung (2018)

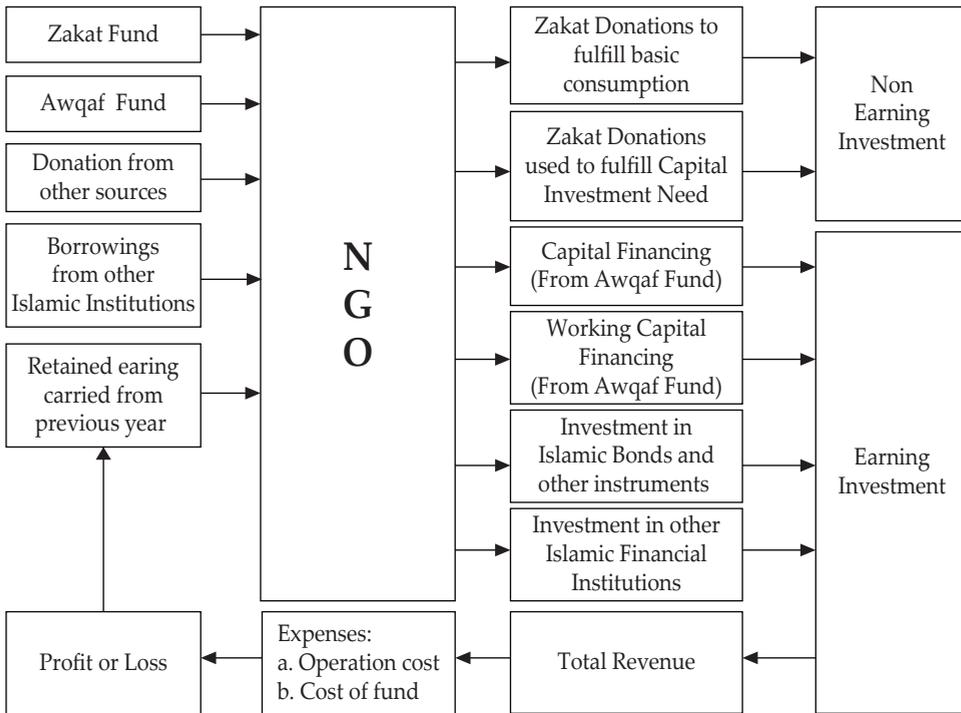
Figure 3. Waqf of Venture Capital of Shari'ah Funds (WVCSF) Model

The Tanjung's (2018) models consist of three alternatives. They are, the waqf fund was pooled into the capital; the waqf fund was pooled into the third party-fund; and the waqf fund is pooled into both the capital and third party-fund. The third alternative was selected in this research with consideration that it arises from the fact that kind of integration should be conducted between zakat and waqf as source of social and venture capital as profit organization.

The operation pattern of WVCSF Model shows that waqf fund is pooled into both Ventura Capital and Third-Party Funds. The third party must know that their funds are combined with the *waqf* fund using *musharakah* contracts. If there is a loss, then the first loss is taken from third party funds. If that is not enough, then the company is responsible for compensating the loss on the *waqf* funds from the company’s own pocket.

D. The Hassan (2010) Model

The Hassan’s model was result of elaboration of many frameworks that was conceptual model that consist of sources of funds, investment modes and its management aspects. The description of his model that becomes one of the author’s main reference can be seen as follows.



Source: Hassan (2010)

Figure 4. Fund Management Model Zakat and Waqf-Based

Hassan (2010) model combines Islamic microfinance with zakat and waqf in an institutional regulation. The model attempts to ensure the distribution and welfare equality for beneficiaries. It is a model based on profit and loss sharing with concessional contract, so the earnings’ distribution should be allocated among distinct stakeholders such as investors in the NGO and depositors.

Hasan's model focuses on increasing income growth through development of micro-business for the poor; ensuring functional re-distribution among factors of productions as preventive measures; and engaging zakat-waqf as corrective measures.

4.1.2. Critical Analysis Among Partial Models

As mentioned above, this study refers to four distinct partial models even closely similar to each other especially in case of final goals. That underlies the author to choose as main references with some consideration analysis as follows.

Table 6.
Analysis Among References Models

Models	Frameworks
• Indrawan et al., (2018)	This model started when institutional and individual donors donate their funds into the manager. While institutional donors' funds solely channelled to charity pooling fund, individual donors funds will be channelled into charity pooling fund and reserve fund
• Ascarya et al., (2018)	This is owned by several WIs, as majority shareholders, and common shareholders, focused on extending financing to general public and investing in the real sector commercially, as well as doing a full range of ISF management, especially zakat and waqf, in separate unit of Baitul Maal to uplift socio-economic condition of the poor people and the community
• Tanjung et al., (2018)	Tanjung's model has baitul maal, corporation and community as three donors or contributors. the funds collected could be invested into sharia venture capital which is exclude operational and administrative costs.
• Hassan (2010)	In this model, government and donor's agencies together in increasing more focuses on NGO participation in distinct of divergent's development

Source: Author's summary

4.2. ANALYSIS

The description of several similar conceptual models and brief analysis among the four, as well as the consideration of the newest phenomenon related to natural disaster results in an idea in the forms of integrated zakat and waqf proposed models for disaster management.

4.2.1. An Integrated Zakat and Waqf Model for Disaster Management (IZWDM): A Proposal

Three Proposed models of Integrated Zakat and Waqf for Disaster Management (IZWDM) were inspired by currently phenomenon of Indonesia's earthquakes and tsunamis in Lombok, Palu, Sigi and Donggala. As a form of commitment, care, and empathy for disasters victims that befalls a number of regions in Indonesia, usually there were fundraising acts spontaneously and sporadically by many parties such as governmental agencies, various communities from many layers of

societies, and particularly from Non-governmental Organizations (NGOs) both national or international NGOs.

Based on such contexts, Islamic NGOs in this case Zakat and Waqf agencies or calls as Islamic Philanthropist familiarly, plays important and main roles to tackles the natural disasters regularly. Each Islamic NGO, such as Dompot Dhuafa, Global Waqf, Al Azhar Peduli Umat, Rumah Zakat, Aksi Cepat Tanggap (ACT), LazisMu, LazisNU and certainly social-governmental board as main zakat and waqf agencies they are National Zakat Board (BAZNAS) and Indonesian Waqf Board (BWI) has program of disaster management covers in all steps starting from pre incident (preparedness), throughout the incident, and post-disasters that commonly involves of four steps: *Rescue, Relief, Recovery, and Reconstruction* (Soedibyo, 2018).

Thus far, assorted aforementioned institutions operate each program with minimal coordination with each other, with a possibility that much concentration on one point overlooks many other areas. Thus, these proposed models attempts to solve various problems focusing on second, third and fourth steps of disaster management by integrating zakat and waqf as main funds sources through synergizing many zakat and waqf agencies particularly coordinated by BAZNAS and BWI followed by Islamic NGO's as mentioned that all together compactly as a team in overcomes it.

A. Modus Operandi of IZWDM

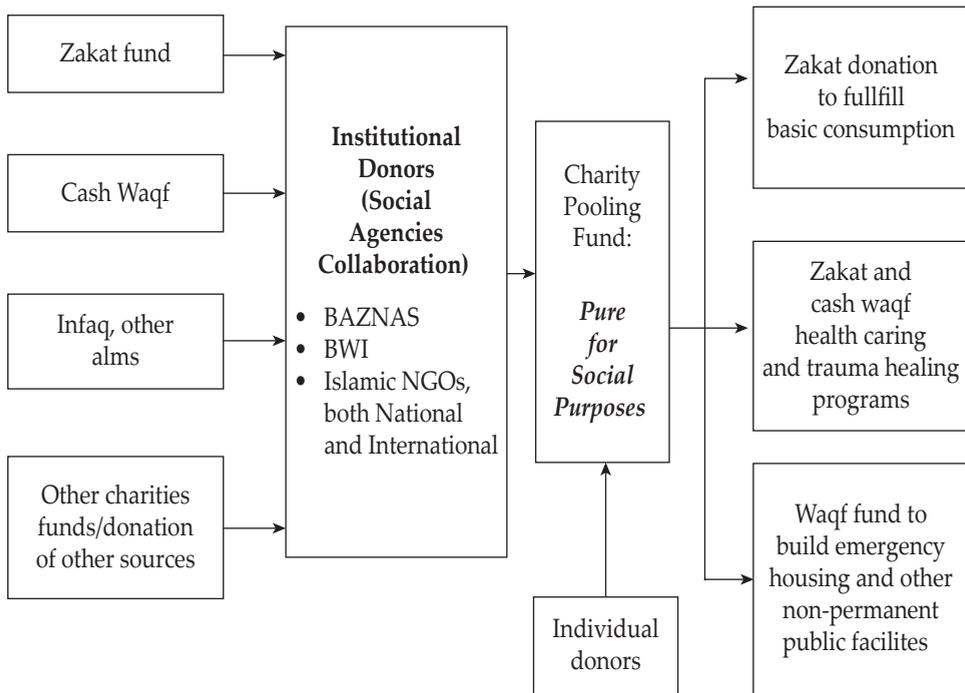
The modification arises from the fact that what kind of integration should be conducted between zakat-waqf and other social funds as a non-profit organization and also overwhelms venture capital as a profit organization (Tanjung, 2018). Here are three alternatives that could be proffered :

1. IZWDM-A is a model that focuses on '*Relief Step*', which is the second step of disaster management.
2. IZWDM-B is a model that focuses on '*Recovery Step*', which is the third step of disaster management.
3. IZWDM-C is a model that focuses on '*Reconstruction Step*', which is the fourth step of disaster management.

The *Rescue* step which is the first step of disaster recovery that does not cover in this idea because fast action is more appropriate for the BNPB's realm, and thus far NGOs certainly plays an equally vital role releasing their volunteers with various of aid resources. These models are available for any scopes: community, local or regency, and even nationwide. The scheme of IZWDM-A as the first proposed model describes bellow.

a) Model IZWDM-A

IZWDM-A is a model that focus on '*Relief Step*', which is second step of disaster. Relief step is stage where disasters victims needs basic need immediately. In this stage, fast fulfillment of primary needs for survival is absolutely needed. So their condition, those who survived from the disaster do not get worse.



Source : Author's illustration

Figure 5. Model IZWDM-A; Integrated Zakat and Waqf for Social Purposes on Relief's Step

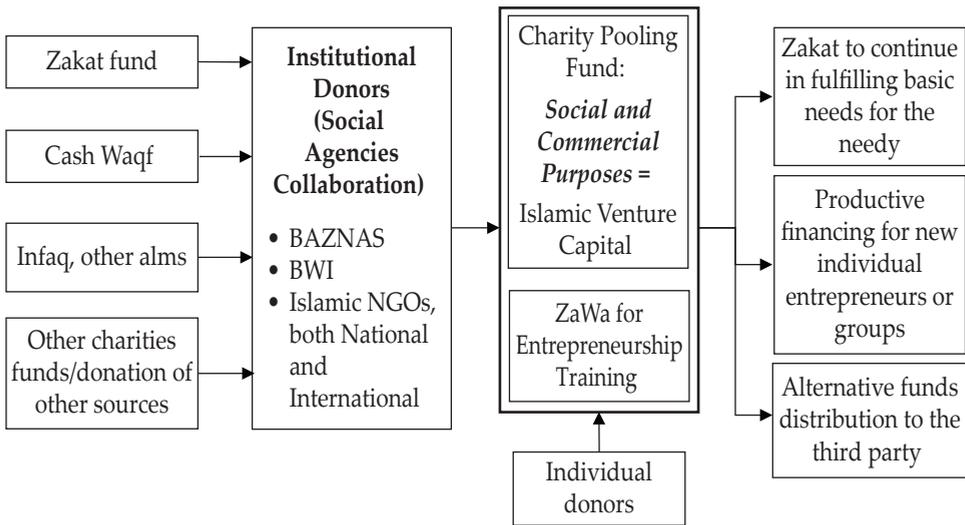
The proposed IZWDM model could be implemented in various levels, including micro level, community, local or regency level and also national level. In this first model (IZWDM-A), the use of funds focuses on the social need of disaster victims on the second (*Relief*) step of disaster management. Description of IZWDM-A framework can be explained as follows.

- 1) **Organizational structure:** Joint organization or social-agencies collaboration based on sudden phenomenon driven by BAZNAS and BWI as main stakeholders related to uses of zakat and waqf funds and followed by NGOs which are national and international NGO. The NGOs and NGO may take its initial initiatives as *pilot projects*. Such *pilot projects* can be described as "units". A unit manager will lead the overall functioning of a particular local areas and manage the distribution also number of beneficiaries (Hassan, 2010).
- 2) **Sources of Funds:** The institutional donors both philanthropy Governmental-Organization (GOs) in this case are BAZNAS and BWI and NGOs will collect funds from different sources social fund. Figure 5 shows that donor's contribution consists of 4 (four) types specifically zakat fund; cash waqf; infaq and other alms; and other charities funds or donation of other sources. Individual donors with their own initiatives to donate their funds into charity pooling fund community-based are welcome.

3) **Uses of Funds:** The basic activity of joint organization in IZWDM-A Model which focuses on social purpose is to fulfill basic needs as daily consumption, to provide the health care and trauma healing programs and also to build emergency housing and other non-permanent public facilities from funds gathered. As discussed earlier, this is only for consumptive needs which is very basic towards disasters victims.

b) Model IZWDM-B

IZWDM-B is a model that focus on 'Recovery step' which is third step of disaster. Disaster recovery step is stage of restoring the situation as before. In this stage, the disaster victims needs livelihood to continue their survival, not only depend on by irregular donation. Meanwhile the previous livelihood sources cannot cover their needs anymore.



Source : Author's illustration

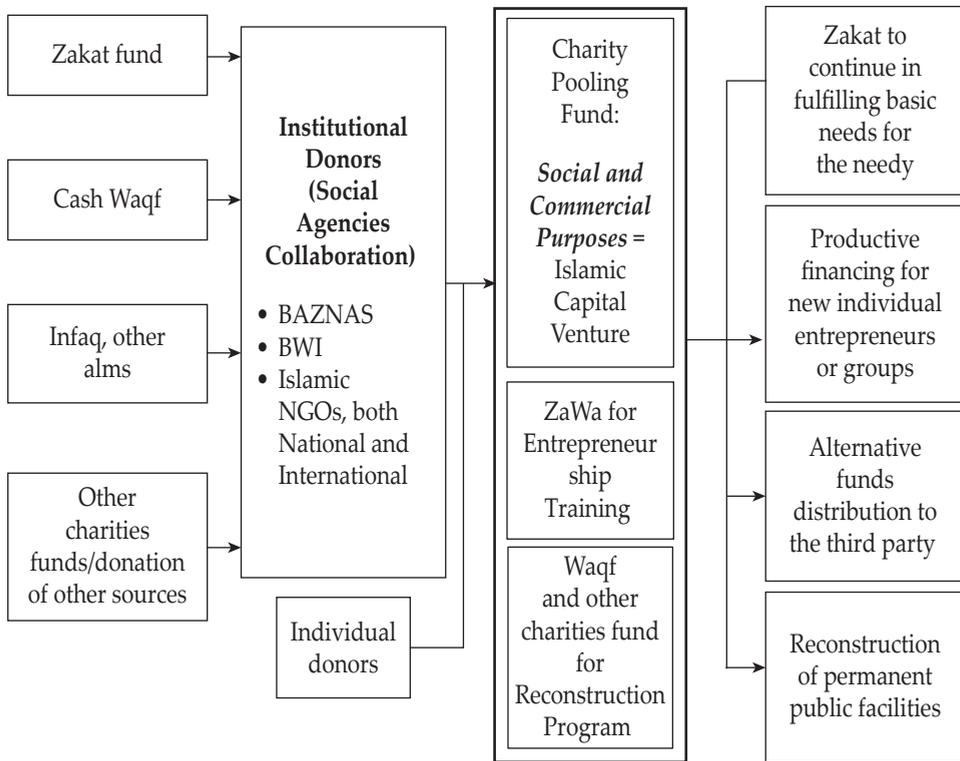
Figure 6. Model IZWDM-B; Integrated Zakat and Waqf for Social and Commercial Purposes on Recovery Step

As describes on Figure 6. above, there is similar sources of social funds and this is development of previous stage with social and commercial purposes. The relatively settle condition of disasters victim, have started to think the livelihood sectors. In this scheme, fulfilling basic needs for the needy is still continue and for commercial aspect, there are allocation for Entrepreneurship Training, productive financing for new individual entrepreneurs or groups and alternative funds distribution to the third party

c) Model IZWDM-C

IZWDM-C is a model that focus on ‘Reconstruction Step’ which is the fourth step of disaster management.

IZWDM-C is a model that focus on ‘Reconstruction step’ that is fourth step of disaster. The disaster reconstruction step focuses on redevelopment of physical infrastructure facilities, besides personal resident also other important public facilities. In this stage, other two previous programs are continuous in the addition of reconstruction step.



Source : Author's illustration

Figure 7. Model IZWDM-C; Integrated Zakat and Waqf for Social and Commercial Purposes on Reconstruction Step

IZWDM-C is a model that focuses on ‘Reconstruction step’ which is the fourth step of disaster. Disaster reconstruction step focuses on re-development of physical infrastructure facilities, apart from household residence, which is also another important public facility. In this stage, other two previous programs are continuous in additional reconstruction step. It is a step where huge capital resources are needed especially the physical material for public facilities also private facilities both social and commercial for their survival. Therefore, the full and total role of zakat and waqf is absolutely necessary at this step other than the real support from the government resources.

4.2.2. The Potential of IZWDM's Implementation

In general, a model is conducted based on an intensive study of the phenomena that occurs in the environment and it is required solutions of problems that arise from these phenomena. In conducting proposed model that offers solution, the relevant theory from the scholars are strongly needed. Considering many factors such as applicability, government regulation, field's real condition and many more, the IZWDM model is potential to be implemented by full supports from stakeholders particularly government.

Related to support for applying it, zakat and waqf agencies are holding important role by support from regency where the disaster happens. A model application must be considering simplicity and commitment among stakeholders particularly the official who would implement it. The pre-disaster management which is precautionary measures and the first step of disaster management which is '*Rescue step*' means fast and precise rescue efforts are beyond of proposed models coverages because these need specific and detail concern that special consideration to partially implementation are needed.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Natural disasters of Lombok and Palu Donggala are very current issue, especially associated with the areas affected by earthquakes and tsunamis. Thousands of new refugees with all the economic and social impacts that arise become the main concern of all parties today. The previous schemes, that proposed by Indrawan et al. (2018), Ascarya (2018), Tanjung (2018) and Hassan (2010) in each, becomes appropriate main references as concepts to help disaster victims. IZWDM models is a scheme which integrate zakat and waqf, as well as Islamic commercial and social sectors to assist disaster management. In this case, the uses of zakat and waqf funds for disaster management are a proper way because that are Islamic social fund for poverty eradication and social welfare purposes.

5.2. Recommendations

All kinds of Indonesian zakat and waqf institutions, including both private or public institutions and government agencies should be in high coordination to tackle the obstacles of disaster management, modern technology is strongly needed to support it. Furthermore, according to this study, further research is particularly needed to focus on more technical areas to realize the scheme into practice. Recommendations include intense communication and good collaboration among stakeholders, particularly governmental organization and NGO's both on national and international scopes. Further detail analysis to determine the most appropriate model is required, focusing on its applicability aspect.

REFERENCES

- Ahmed, H. (2004). Role of Zakah and Awqaf in Poverty Alleviation. *Occasional Paper 201*, The Islamic Research and Training Institute (IRTI).
- Al Qardawi, Y. (2000). *Fiqh Al Zakah: A Comparative Study of Zakah, Regulations and Phylosophy in the Light of Qur'an and Sunnah*. Jeddah, Saudi Arabia: Scientific Publishing Center King Abdulaziz University.
- Ascarya. (2017). Baitul Maal Wat Tamwil (BMT): An Integrated Islamic Social and Commercial Financial Institution in Indonesia. In ISRA, Thomson Reuters & IRTI (2017). *Islamic Commercial Law Report 2018*. ISRA - Thomson Reuters - IRTI.
- Ascarya, Husman, J.A., & Tanjung, H. (2018). *Designing Waqf-Based Islamic Finacial Institution Models*. Bank Indonesia Working Paper. Islamic Economic and Finance Department – Bank Indonesia. *Fothcoming*.
- Badan Nasional Penganggulangan Bencana. (2018). Lombok Aftershock Data Update. Jakarta: Author. Retrieved October 8, 2018, from <https://www.bnpb.go.id/english-lombok-earthquake>
- Badan Nasional Penganggulangan Bencana. (2018). Lombok Victim Data Update. Jakarta: Author. Retrieved October 8, 2018, from <https://www.bnpb.go.id/english-lombok-earthquake>
- Beik, I.S. (2011). *Indonesia Zakat and Development Report*. Kajian Empirik Zakat dalam Penanggulangan Kemiskinan, IMZ.
- Beik, I.S. (2018). Public Expose Kajian Dampak Ekonomi Bencana. Pusat Kajian Strategis Baznas. <http://www.bisnissyariah.co.id/2018/10/public-expose-kajian-dampak-ekonomi-bencana-49101>
- Benson, C. & Clay, E. J. (2004). *Understanding the Economic and Financial Impacts of Natural Disasters*. The International Bank for Reconstruction and Development / The World Bank. Disaster Management Series No.04. Washington D.C.
- Ghafory-Ashtiany, M. (2009). View of Islam on Earthquakes, Human Vitality and Disaster. *Disaster Prevention and Management: An International Journal*, 18(3).
- Haneef, M.A. (2015). Integration of Waqf-Islamic Microfinance Model for Poverty Reduction: The case of Bangladesh. *International Journal of Islamic and Middle Eastern Finance and Management*, 8(2).
- Hassan, M.K. (2010). *An Integrated Poverty Alleviation Model Combining Zakat, Awqaf And Micro-Finance*. Seventh International Conference – The Tawhidi Epistemology: Zakat and Waqf Economy, Bangi 2010.
- Hassanain, K. (2015). Integrating Zakah, Awqaf and IMF for Poverty Alleviation: Three Models of Islamic Micro Finance. *Journal of Economic and Social Thought*, 2(3).
- Indrawan, Imam W., & Herman, S. (2018). *Integrated Zakat and Waqf Model for Refugees (IZWMR), Proposal to Improve Livelihood of Global Refugees*, <https://www.academia.edu/s/5ca8fecaae/integrated-zakat-and-waqf-model-for-refugees-izwmr-proposal-to-improve-livelihood-of-global-refugees?source=link>
- Kahf, M. (2000). *Zakah Management in Some Muslim Societies*. Working Paper Series, Jeddah: IRTI.
- Kasri, R.K. & Putri, N.I.S. (2018). Fundraising Strategies to Optimize Zakah Potential in Indonesia: An Exploratory Qualitative Study. *Al-Iqtishad; Journal of Islamic Economics*, 10 (1).

- Lindell, M.K. (2013). *Recovery and Reconstruction After Disaster*. *Encyclopedia of Natural Hazards*. Bobrowsky, P.T. (Ed.). <http://www.springer.com/978-90-481-8699-0>
- Mikail, S.A., Ahmad, M.A.J., & Adekunle, S.S. (2017). Utilisation of Zakāh and Waqf Fund in Micro-Takāful Models in Malaysia: An Exploratory Study. *ISRA International Journal of Islamic Finance*, 9(1).
- Mohsin, M.I.A. (2016). *Revival of Waqf for Socio Economic Development (Successful Cases Worth Attention)*. INCEIF Working Paper Series.
- Nasir, F.M. (2018). Wakaf untuk Penanggulangan Bencana, Editor: Elba Damhuri. Republika CO.ID, October 10.
- Rahmanto, M., Muqorobin, M., Husein, R., Musjtari, D.N., Rofiq, M., Kholis, A.N., Saptani, S., & Syarifah, L. (2016). *Coping with the Disaster, Principle Guidance from an Islamic Perspective*. <http://repository.umy.ac.id/handle/123456789/3579>
- Soedibyo, B. (2018). *Public Expose Kajian Dampak Ekonomi Bencana*. Pusat Kajian Strategis Baznas. <http://www.bisnissyariah.co.id/2018/10/public-expose-kajian-dampak-ekonomi-bencana-49101>
- Sutopo, P.N in Wrigt, S. and Ng, Eileen. (2018, October 7). Death Toll for Recent Indonesian Natural Disasters Reaches 1,700, Officials Say. *Time*, p.1.
- Tanjung, H. (2018). An Integration of Waqf and Venture Capital: A Proposed Model for Indonesia, *Journal of Islamic Monetary Economics and Finance*, 3(Special Issue).
- Zaenal, M.H, Astuti, A.D, Choirin, M. & Sadariyah, A.S. (2017). *Integrating Zakat and Waqf Project: A Case Study of Free Hospital Development of the National Zakat Board (BAZNAS) Indonesia*. Puskas Working Paper Series PWPS-2017.