

Maintaining Legitimacy and Financial Viability in the Sustainable Entrepreneurship Journey

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Abstract

The purpose of this study is to explore the link between legitimacy and financial viability in a sustainable entrepreneurship journey. It focuses on (1) the sustainable entrepreneur's actions in confronting various critical incidents within her entrepreneurial journey that have direct and indirect effect towards legitimacy formation and funding acquisition, (2) the interplay between inter-organizational relationship and legitimacy and financial viability in the context of hybrid sustainable enterprise, and (3) the different practices in maintaining the established legitimacy and financial viability after a long-standing presence in the market. Therefore, a case study research was conducted on a sustainable entrepreneur, Tri Mumpuni, who in the course of 25 years has generated impressive economic, social, and ecological impacts by building 82 microhydro power plants in remote parts of Indonesia.

The narration of Tri Mumpuni's journey has lead to propositions that contribute to theories of sustainable entrepreneurship journey, hybrid organizing, and institutional legitimacy. The study has found that (1) entrepreneur's success in maintaining legitimacy and achieving the Triple Bottom Line goals along with financial viability and market entry are needed to conclude a sustainable entrepreneurship journey, (2) internal and external tensions that resulted from hybrid organizing can be circumvented through the separation of opposing activities (e.g. charity and business) and the legitimation of venture's values and vision, (3) reliable track record, integrity, proof of program sustainability, indomitable determinations, strategies to connect local people with local resources, and empowerment of the marginalized are strategies that sustainable entrepreneurs can employ to establish and maintain legitimacy, and (4) media presence that allow knowledge transfers and storytelling may enhance established legitimacy.

Keywords entrepreneurship, sustainable entrepreneurship, entrepreneurial journey, legitimacy, financial viability, hybrid enterprise, Indonesia.

TABLE OF CONTENTS

LIST OF TABLES	5
LIST OF FIGURES	5
ACKNOWLEDGEMENT	6
1. INTRODUCTION	7
2. LITERATURE REVIEW	11
2.1 Sustainable Development	11
2.2 Sustainable Entrepreneurship	17
2.3 The Sustainable Entrepreneur	18
2.4 Entrepreneurial Opportunities	19
2.4.1 Sources of Sustainable Opportunities	21
2.5 Sustainable Entrepreneurship As a Process	23
2.5.1 The Emergence Perspective	24
2.5.2 The Value Creation Perspective	24
2.5.2 The Creative Process Perspective	24
2.5.3 The Opportunity Discovery Perspective	25
2.5.4 Entrepreneurial journey	25
2.5.5 Sustainable Entrepreneurship Process	28
2.6 Legitimacy of Sustainable Venture	31
3. METHODOLOGY	36
3.1 Research Strategy and Method	37
3.1.1 Multiple case study versus Single Case Study	39
3.1.2 About Tri Mumpuni	39
3.2 Data Collection	40
3.2.1 Semi-Structured Interviews	41
3.2.2 Unstructured Interviews	42
3.2.3 Secondary Data	44
3.3 Data Analysis	45
3.4 Evaluation of the Study	46
3.4.1 Ethical Considerations	46
3.4.2 Quality of Research.....	47
4. FINDINGS	49
4.1 The Enterprising Journey In Safeguarding the Legitimacy and Financial Viability of a Pioneering Sustainable Enterprise	49
4.1.1 The Beginning of the Journey: Visionizing	49
4.1.2 From Visionizing to Building a Mission.....	50
4.1.3 Formalizing The Vision: People Centered Business and Economic Initiative	53
4.1.4 The Creation of a Socio-Ecological Solution	55
4.1.6 Surpassing the Barricade in Establishing Legitimacy: Entrance of State Actors	59
4.1.7 Cinta Mekar On-Grid MHP Project (2005)	60
4.1.8 The Triple Bottom Line Impact Generated by IBEKA	65
4.2 Tri Mumpuni’s Role in the Legitimacy of IBEKA	70

4.2.1	A Woman Who Aspired and Inspired.....	70
4.2.3	Partnership in Realizing the Vision.....	72
4.2.4	Tri Mumpuni’s Social Innovation.....	74
4.2.5	A Woman’s Fight Against Political Powers	75
5	DISCUSSION	79
5.1	The Sustainable Entrepreneur	79
5.2	Tri Mumpuni’s Journey As A Sustainable Entrepreneur.....	84
5.2.1	Sustainable Entrepreneurship Journey	84
5.2.2	The End of the Sustainable Entrepreneurship Journey	87
5.3	Hybrid Organizing in Sustainable Entrepreneurship	89
5.4	Establishing Legitimacy.....	90
5.4.1	Fulfilling the Demand to Fit In	91
5.4.2	Enhancing Legitimacy Through Standing Out	93
5.5	Maintaining the Established Legitimacy.....	97
6.	CONCLUSION.....	102
6.1	Research Summary	102
6.2	Limitations of the Study.....	104
6.3	Suggestions for Further Research.....	105
	REFERENCE LIST	107
	Appendix 1. Coding of Video Materials	115
	Appendix 1.1 Open Coding of Video Materials.....	116
	Appendix 1.2. Grouping the Coding of Videos	119
	Appendix 2. Interview Transcriptions.....	122
	Appendix 2.1 Interview with Tri Mumpuni.....	123
	Appendix 2.2 Interview with Mr. EG.....	132
	Appendix 2.3 Interview with Monica Yanuardi.....	139
	Appendix 3. Videos Transcription	148

LIST OF TABLES

Table 1: Electricity Tariff of Community-Based MHP and PLN	59
Table 2: Differences in Off-Grid and On-Grid MHP Scheme	61
Table 3: Capital and Funding Breakdown of Cinta Mekar On-Grid Project.....	62
Table 4: The Impact of IBEKA's MHP Projects	68
Table 5: Tri Mumpuni's Social Expressions.....	83
Table 6: Aspects that Lead Donors and Organizations to Legitimize Tri Mumpuni	92
Table 7: Themes of Tri Mumpuni's Stories of IBEKA	101

LIST OF FIGURES

Figure 1: The Triple Bottom Line and the Scope of Value Creation	15
Figure 2: Sustainable Entrepreneurship Process	28
Figure 3: Semi-Structured Questions for the Interview with Tri Mumpuni.....	43
Figure 4: An illustration of Tri Mumpuni's Journey	46
Figure 5: The Off-Grid Microhydro Scheme	56
Figure 6: The On-Grid Microhydro Scheme	63
Figure 7: Timeline of Tri Mumpuni's Journey as an Entrepreneur	71
Figure 8: IBEKA's Vision and Missions	80
Figure 9: Tri Mumpuni's Sustainable Entrepreneurship Journey	85

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Ad maiorem Dei gloriam...

1. INTRODUCTION

Knowledge, science, and technology has been advancing but the world is still suffering from social issues, such as poverty, the spread of preventable and curable diseases, violence and conflict, slavery, human trafficking (Dees, 2007), and discrimination and exclusion (Estrin, Mickiewicz, & Stephan, 2013). The condition of the natural environment is also changing, which is caused by the course of nature itself and by human deeds. The effects of climate change, natural disasters (e.g. earthquake, volcano eruption), pollution, and scarcity of natural resources are affecting people's wellbeing. Despite the removal of trade barriers that enable the free movements of goods and people, there are still unequal distribution of wealth, employment opportunities, and consumption. These social, environmental, and economic issues lead to the urgency of sustainable development.

Sustainable development's Triple Bottom Line, which is the development of social, economic, and environmental gain for others (Patzelt & Shepherd, 2010), has often been overlooked by commercial businesses and neglected by governments (Di Domenico, Haugh, & Tracey, 2010). Unless sustainable practices result in competitive advantage, commercial businesses tend to ignore the need for sustainability due to the popular notion that sustainability generates minimal financial returns (Austin, Stevenson, & Wei-Skillern, 2006; Parrish & Foxon, 2009). Some entrepreneurs, however, recognize promising opportunities in fulfilling the unmet social, economic, and environmental needs regardless of the limited personal financial gain. The primary goals of these entrepreneurs, known as sustainable entrepreneurs, are to improve and to maintain the quality of people's life and the environment (Parrish & Foxon, 2009; Parrish, 2010; Patzelt & Shepherd, 2010), while financial viability is regarded merely as a necessity to achieve the goal (Austin et al., 2006).

Sustainable entrepreneurship has gained importance not only because of its contribution to public welfare and environmental quality, but also caused by the spillover effect of its operations to commercial businesses and nations. Sustainable operations could eliminate market failures and, thus, open up new opportunities to

commercial businesses. Furthermore, sustainable actions oftentimes require collaborations at local, national, and/or global level making cooperations between previously unconnected groups (i.e. the government, private firms, and local communities) possible. (Estrin et al., 2013). Most importantly, the actions of sustainable entrepreneurs are found to be critical for the transition towards sustainable economy (Parrish & Foxon, 2009).

Despite the great significance of sustainable entrepreneurship, the infrastructure to develop such ventures is not as established as the ones for commercial ventures (Dees, 2007). Just as any entrepreneurs, sustainable entrepreneurs face scarcity of resources, but in more unfavorable conditions than their counterparts. They are operating in failed markets where resources are inherently in short supply. (Di Domenico et al., 2010). At the same time, they are facing non-distribution restriction that prevents them from providing lucrative financial returns to capital providers and competitive remunerations to their human resources. They consequently cannot tap into conventional sources (i.e. the capital market) unlike commercial entrepreneurs. (Austin et al., 2006).

There are nevertheless sources of both human and financial resources for sustainable entrepreneurs. Owing to the non-distribution restriction, most sustainable entrepreneurs rely on volunteers and/or employ people who put greater value on non-financial returns, such as the emotional gains from helping those in need (Austin et al., 2006). Sustainable entrepreneurs are able turn to the three F's (friends, family, and fools) to finance their ventures and other financial sources, such as "individual contributions, foundation grants, member dues, user fees, and government payments" (Austin et al., 2006, p. 12). However, there has been a trend where such entrepreneurs break away from donors to achieve independence in sustaining the business and start adopting the commercial business model to attract the conventional sources (Domenico, Haugh, and Tracey, 2010).

The process that sustainable entrepreneurs undergo in securing financial capital becomes an interesting area to research because, like any startup, they pose higher investment risks compared to more mature businesses (Hofstrand, 2013). The venture is

especially high risk at the early stage since the viability of the business cannot be ensured. Although they can utilize different methods to gather funding, namely social resourcing, financial bootstrapping, effectuation, bricolage (Di Domenico et al., 2010) or hybrid organizing (Battilana & Lee, 2014), they still have to convince others on the viability of the venture in spite of the absence of profitability, track record, and asset value (Cornelissen, Clarke, & Cienki, 2012).

The success of acquiring funding by any of the mentioned methods is highly dependent on multiple factors, such as strong networks and reputation, skills in building and managing relationships, and willingness to collaborate with and transfer of knowledge to external parties (Austin et al., 2006). Even if entrepreneurs have possessed some of these factors, they still face the challenge of convincing potential financial providers of the viability of the business idea and the new enterprise. The challenge is especially intensified for newcomers due to low familiarity and low credibility in the eyes of stakeholders (De Clercq & Voronov, 2011). Entrepreneurs can overcome these challenges by establishing legitimacy, which leads the stakeholders to believe that both the entrepreneur and the enterprise are in accordance with the existing norms and behaviors in the sustainable market (Drori & Honig, 2013).

Legitimacy is essential for sustainable entrepreneurs to acquire external financial support not only at the start-up phase, but also throughout the enterprise's life cycle. However, the establishment of legitimacy requires entrepreneurs to fulfill stakeholders' expectation of fitting in and standing out from the existing conventions (De Clercq & Voronov, 2011). In addition to these expectations, sustainable entrepreneurs are also demanded to maintain the balance between economic viability and socio-ecological impacts in order to be legitimate. A conflicting logic may arise since sustainable entrepreneurs oftentimes view economic gains merely as a mean to achieve social and ecological goals while financial providers prioritize profitability. The absence of a common unit to measure social and ecological impact makes it harder for sustainable entrepreneurs to convince potential financial providers that the intended socio-ecological impacts are of greater importance compared to profitability (Slaper &

Hall, 2011). The presence of stakeholders' expectation and conflicting logics provides challenges that are unique to sustainable entrepreneurs.

In consideration of the relationship between legitimacy and funding acquisition for sustainable entrepreneurs, the purpose of this thesis is to investigate how sustainable entrepreneurs establish and maintain the legitimacy of their enterprise in order to ensure financial security. A comprehensive single case study was conducted not only to shed a light on the legitimacy of sustainable entrepreneurship, but also to contribute to the journey of sustainable enterprising. The subject of the study is a sustainable entrepreneur, Tri Mumpuni, who has successfully established and maintained the legitimacy of her sustainable enterprise¹ for more than 25 years. Tri Mumpuni is a suitable subject for this research as she has built 82 microhydro power plants in remote villages in Indonesia without any sign of stopping. She continues to receive financial supports from individuals and institutions to pursue her vision through her sustainable enterprise.

The primary location of Tri Mumpuni's enterprise, *Inisiatif Bisnis dan Ekonomi Kerakyatan* (IBEKA), is in Indonesia. The improvement on Indonesia's economy in the last few years has led to the country being considered as a middle-income country. Social, economic, and environmental issues are no longer widespread, but such issues still exist in some parts of the country. The middle-income status limited the country's access to development grants from donor institutions (The World Bank, 2013; The World Bank, 2014) and it has to rely on its own national budget. The constraints in mobilizing development funds has driven the government to collaborate with private institutions to provide the much needed Triple Bottom Line aspects to the public. Although this situation is conducive for sustainable entrepreneurs such as Tri Mumpuni, the political condition within the country may have uncertain impact in the process of legitimizing the enterprise. For these reasons, Tri Mumpuni's journey is a truly compelling case to research on.

¹ Tri Mumpuni is widely known as a social entrepreneur. Nevertheless, her enterprise incorporates not only social and economic aspects, but also environmental aspect, making sustainable entrepreneur a more accurate title. The distinction between social and sustainable entrepreneurship will be discussed in more detail in the following sections.

2. LITERATURE REVIEW

Technological advancement in medicine and agriculture has contributed to food security and to the increase in life expectancy (Belz, 2013). Technology is without a doubt beneficial for the preservation of human life, thus its further development should not be suspended. Even so, people should be prepared to share and to optimize the progressively limited resources. Efficiency in business operations leads to declining costs and customer price, as well as to job creations that increase wage and purchasing power. People consequently become more consumptive due to the lower price and better purchasing power. Unfortunately, the increase in consumption also results in the piling of waste and the overutilization of resources. (Belz, 2013). With the public becoming increasingly aware of the human suffering and the degradation of nature, the call for sustainability has ceased from being exclusive to the green movement.

According to Belz (2013), experts from different disciplines have proposed different solutions for the deteriorating natural and social environment caused by human activities. Population scientists and ecologists advocate for population control to solve the overcrowding world. In my opinion, this solution is not only ineffective but also challenges numerous ethical issues. Social scientists propose a different approach in which the society's consumerism and materialism orientation have to be transformed into a more responsible one. Moreover, economists and engineers suggest the use of technology to solve any societal and ecological problem. (Belz, 2013). Regardless of the good solutions that each discipline proposes, it is ineffective to rely only on one solution. Therefore, an integrated solution is required.

2.1 Sustainable Development

In order to uncover the best integrated solution, it is important to understand what sustainability means. Report of the World Commission on Environment and Development (1987), which is popularly known as the Brundtland Report, defines sustainability as “meeting the needs of the present without compromising the ability of

future generations to meet their own needs” (p. 14). Furthermore, sustainability requires the “exploitation of resources, the direction of investments, the orientation of technological development” (p. 15) to be adjusted in compliance with the need of the present and the future. These requirements accentuate that sustainability is not merely the responsibility of governmental institution, but also the responsibility of businesses.

According to Parrish (2010), sustainability issues gives rise to the differing perspectives for businesses to handle the sustainable development issues, namely the *humans-and-ecosystems* perspective and the *humans-in-ecosystems* perspective. The *humans-and-ecosystems* view sustainability as a nuisance for businesses and can be corrected by either innovations in the market or technological interventions. *Humans-in-ecosystem* principles acknowledge the importance of the ecosystem for the long-term survival of humankind and better living condition. The *humans-in-ecosystem* principles enable entrepreneurs to take on a role in creating a better society in solving the arising social-ecological issues by employing either a technocratic or a collaborative approach. With the technocratic approach, businesses can use technology to regenerate utilized resources, to reduce waste, and to find renewable substitutes of unrenowable resources. Alternatively, businesses can collaborate with the environment, whereby any development in human values, organization, knowledge, and technology are made in line with the environment. These perspectives, however, do not provide a clear direction on what businesses can do to deal with the need for sustainability.

Belz (2013) views the Bruntland’s definition of sustainability as a human-centered approach (anthropocentric) in which the objective for the maintenance of the environment is to ensure human survival. Belz identifies three key principles of the Bruntland’s definition namely need satisfaction, intragenerational equity, and intergenerational equity. Intragenerational equity or, in other words, the need of the present, refers to the fair distribution of resources for all. Intergenerational equity, which refers to the need of the future, is concerned with the balance of needs of the present and the future; therefore the need of the present should not be compromised with the need of the future. The three key principles lead to the need for sustainable

innovations in the market. Sustainable innovations differ from conventional innovations due to the fulfillment of the following characteristics:

- i. Novelty in forms of incremental or radical innovations. Incremental innovations are created through the improvement of product/ service offering by using existing technologies. This type of innovation contributes to increased competitiveness of the business. Alternatively, radical innovations introduce new technology that potentially leads to dramatic changes in the market if successful.
- ii. The innovation has to provide customer satisfaction. In this context, customer satisfaction is not equivalent to need satisfaction.
- iii. The product/ service delivers values that are consistent with the Triple Bottom Line (economic, social, and environmental aspects).
- iv. The sustainability issues are infused in every phase of the product/ service life cycle, which begins with the activities concerning the raw materials until long after usage by the customer.
- v. The innovation provides significant improvement on major socio-economic problems.
- vi. Sensitivity to the ever-advancing knowledge and technology leads to continuous improvement of the innovation. Moreover, the improvements are always reconciled with the current societal aspiration.
- vii. Despite the complex sustainability content of the innovation, the product/ service has to be able to compete in price and quality with conventional product/ service.

The characteristics of sustainable innovations presented by Belz (2013) induce many opportunities for businesses to exploit. Nevertheless, established companies are often reluctant to make use of the opportunities since they are required to make changes in their strategy and organization culture, not to mention the financial consequences for making such changes. Therefore, new entrants or entrepreneurs are the ones that usually exploit the opportunity to introduce sustainable innovations to the market.

Entrepreneurs, particularly sustainable entrepreneurs, have gained importance in the world's economy since they are found to be drivers of change.

In practicing sustainability, entrepreneurs may use the Triple Bottom Line as a blueprint in building their ventures. The Triple Bottom Line is an accounting framework that goes “beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions” (Slaper & Hall, 2011, p. 4). In other words, entrepreneurs are able to combine sustainable development into their entrepreneurial actions by infusing economic, social, and environmental values into their operations and product offering (Rajasekaran, 2013; Thompson, Kiefer, & York, 2011). Entrepreneurs need to ensure that “economic prosperity, environmental quality, and social justice” (Rajasekaran, 2013, p. 51) are equally integrated in the business.

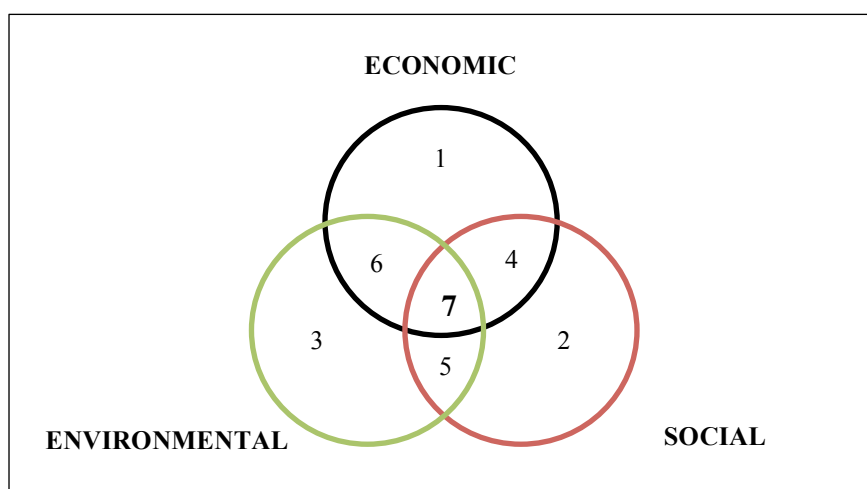
Conventionally, businesses asserted that their profit-making operations has contributed to the betterment of the society since they paid taxes, created jobs, and made new products and services accessible to consumers. This view, however, has become inapplicable in the current world. Businesses are no longer responsible only to their immediate stakeholders and investors but also to the society as a whole and the environment in which they operate. Businesses, particularly entrepreneurs, can become more responsible by applying the 3P formula (People, Planet, Profit) of the Triple Bottom Line. (Rajasekaran, 2013).

People. In order to be sustainable, businesses cannot put corporate interest above the interests of the stakeholders and labor. The interest of one party should not be prioritized over the others since there is interdependency between corporate, stakeholders, and labor. Oftentimes, the livelihood of the workforce is neglected due to the need to fulfill the interest of the corporation and other groups within the stakeholder (e.g. customers). Sustainability calls for labor's wellbeing to be maintained or, even better, to be improved through ethical labor practices and attention to human rights. (Rajasekaran, 2013).

Planet. Business operations have direct or indirect effect to natural resources and the environment. Preservation of natural resources is in dire need. The movement to find alternative sources of nonrenewable resources (e.g. fossil fuel) has started for years, but the fate of renewable resources (e.g. water, air) is still largely ignored. There has been misconception that since renewable resources would not deplete after use and the cost of usage is relatively inexpensive, the usage of such resources should be maximized. However, irresponsible consumption of such resources can degrade their quality, making them as increasingly scarce as the nonrenewable resources. For this reason, businesses have to reduce their ecological footprints and to not cause any harm to the environment. (Rajasekaran, 2013).

Profit. Any form of businesses, be it commercial or sustainable ventures, need to be economically viable in order to survive and to make an impact in the market. Financial return is necessary not only for the prosperity of the business owners, shareholders, and investors, but also for investment in matters that support the business (e.g. R&D, machines) and for distributing parts of the gain to various parties involved in the process (e.g. employees, suppliers). Having said that, ventures that are not primarily driven by profit maximization still need to bring about economic prosperity while delivering socio-ecological values. (Rajasekaran, 2013).

Figure 1: The Triple Bottom Line and the Scope of Value Creation



Source: Cohen, Smith and Mitchell (2008)

In view of the fact that not all businesses are driven by the desire of profit maximization, the concept of the Triple Bottom Line prompted the identification of seven different business motivations and objectives (see Figure 1) as posited by Cohen, Smith and Mitchell (2008):

1. Performance : The sole objective is to gain economic rents.
2. Promise : The sole objective is to create social value for the community. With the absence of profit motivation, such businesses are usually in the form of non-profit or charity organizations.
3. Perpetuity : The sole objective is to reverse human-made destructions to the environment. Just as the promise business, it is usually in the form of non-profit organizations due to the absence of profit motivation.
4. Socio-efficiency : This type of business focuses on creating social value for the society while seeking financial gain at the same time.
5. Stewardship : Such business is not motivated by financial return, but driven by the responsibility towards the people and the planet. The main objective is to eradicate socio-ecological issues and normally established as non-profit or charity organizations.
6. Eco-efficiency : This type of business aims for financial gain by developing solutions to tackle environmental problems.

7. Sustainability : The objective of such businesses is to optimize all aspects of the Triple Bottom Line (economic, social, and environmental). The concept of sustainable development is infused into the business operation. This type of business, particularly sustainable entrepreneurship, is the focus of this paper.

2.2 Sustainable Entrepreneurship

There are many reasons for the growing importance of sustainable entrepreneurship. Parrish and Foxon (2009) has found that the alternative motives and values enable sustainable entrepreneurs to take care of the problems caused and/or unmanageable by the commercial industries and government bodies. Moreover, sustainable entrepreneurs are not primarily driven by profit maximization, but by alternative motives such as gain for others and non-economic goals (e.g. Cohen, Smith, & Mitchell, 2008; Parrish, 2010; Parrish & Tilley, 2010; Patzelt & Shepherd, 2010; Schlange, 2006; Shepherd & Patzelt, 2011). As sustainable entrepreneurs create values out of these alternative motives, the society as a whole benefits from their venture.

There are numerous definitions of sustainable entrepreneurship. Binder and Belz (2014) conducted a systematic review on literatures with the intention to define sustainable entrepreneurship. The review on 43 articles that are deemed relevant to the field of sustainable entrepreneurship between 2009 and 2012 provides a diverse definition of the subject. In order to formulate an integrated definition, Binder and Belz identify the notable consensus on four key concepts contained in the different definitions proposed by leading sustainable entrepreneur journals (i.e. Cohen & Winn, 2007; Dean & McMullen, 2007; Hockerts & Wüstenhagen, 2010; Pacheco et al., 2010; Patzelt & Shepherd, 2010). First, the authors are in unison in referring *sustainability* as the balance in the Triple Bottom Line (economic, social, and ecological). Sustainability leads to the second key concept, *opportunity*, which is the center sustainable entrepreneurship research. With opportunity as the central, the research takes on the

process view (the third concept) that explores the entrepreneurs' actions towards opportunities, rather than on the individual entrepreneurs and their distinct personalities, characters, and capabilities. The fourth concept is related to the specific actions of the entrepreneur, mainly the *discovery/ creation* and *exploitation* of opportunities.

In consideration of these key concepts, Binder and Belz (2014) defines sustainable entrepreneurship as:

The scholarly examination of how opportunities to bring into existence future goods and services are recognized, developed, and exploited by whom, and with what economic, social and ecological gains (p. 23).

From Binder and Belz's definition, there are five key concepts that could help in understanding the concept of sustainable entrepreneurship. The key concepts are the source of opportunities, the process perspectives, the individual entrepreneur, the balance of the Triple Bottom Line in value creation, and the transition to a sustainable society through the offering of sustainable goods/services. Nevertheless, the main emphasis of this definition is the nexus of the individual entrepreneur and the opportunity.

2.3 The Sustainable Entrepreneur

Being an entrepreneur is not merely about founding and/or owning a company. It extends to more than the conventional thinking of transforming an idea into a viable business (Scharper, 2010; Schlange, 2009). The most important feature that differentiates an entrepreneur and a company founder is the creation of new value (Parrish & Tilley, 2010) by means of creative destructions in forms of innovations, adaptations, or both (Lahti, 2006; Parrish & Foxon, 2009; Scharper, 2010; Schlange, 2009). Conventionally, entrepreneurship research was focused on the traits, characteristics, and other factors internal to entrepreneurs that differentiate them to the other people/business people.

According to Schumpeter (as cited in Kirzner, 2009), entrepreneurs possess boldness, creativity, and innovation that are necessary to help them pursue the opportunities. Ardichvili, Cardozo, and Ray (2013) argue that distinct genetic make up, background and experience contribute to varying receptiveness to opportunities, as well as the varying amount and type of information that people had on certain opportunities. Hence some could identify and develop an opportunity while others miss it. An individual's genetics, background and experience also affect his/ her ability to think of solutions or ways to make use of the opportunities, thus influence opportunities development. In addition to these internal factors, Schlange (2006) suggests that individual's cognitive structure also distinguish entrepreneurs from the general population.

Nevertheless, the focus of entrepreneurial research is no longer on the person, traits, and characteristics of an individual entrepreneur (Gartner, 1988). The focus has shifted to the nexus of individuals and opportunities (Moroz & Hindle, 2011). The shift is appropriate because in the absence of opportunities, individuals possessing the mentioned characteristics cannot be classified as an entrepreneur. Moreover, there is a clear relationship between the individual and a particular opportunity, since not every opportunity is processed by the individual (Moroz & Hindle, 2011). The individual recognizes and acts on opportunities depending on their unique personality traits, alertness, information asymmetry and prior knowledge, social networks, and knowledge about the market and resources (Ardichvili et al., 2003; Moroz & Hindle, 2011; Patzelt & Shepherd, 2010).

2.4 Entrepreneurial Opportunities

In Binder and Belz's (2014) discussion on conventional entrepreneurship research, it is suggested that researches on entrepreneurial opportunities are based on either Schumpeterian's or Kirznerian's view. The heart of the Schumpeterian view is innovation, whereby an individual speculates the presence of unutilized or underutilized resources in the market and subsequently employs the opportunity (Lahti, 2006) by

creating novelties in forms of goods, production methods, market, source of supply, as well as industrial reorganization (Gartner, 1988). Through the creation of opportunities, Schumpeterian entrepreneur conducts the widely known ‘creative destruction’, thereby creating market disequilibrium (Binder & Belz, 2014). Binder and Belz (2014) state that innovation is not a necessary condition for entrepreneurship in Kirznerian’s view. Alertness to new opportunity is stated to be the essential attribute to entrepreneurship. Researchers that take Kirznerian’s view maintain that opportunities are discovered, rather than created. Binder and Belz further posit that while some researchers adopt either view, some take a neutral stance and propose the need for integration of both views, thereby accepting the stance that opportunities can be both created and discovered.

An article written by Kirzner himself (2009) puts forward a persisted misunderstandings on his 1973 work², which many researchers has used to distinguish the previously mentioned Schumpeterian’s or Kirznerian’s view. Kirzner states that his view focuses on alertness to opportunities instead of creation of opportunities. Rather than introducing an innovation to disrupt the market to disequilibrium, entrepreneurs are being alert to the already changing market, thus being able to notice opportunities to be utilized. This view does not mention the need for Schumpeterian qualities (boldness, creativity, and innovation), but it does not mean that Kirzner denies these qualities to be present in the *real world* entrepreneurs. He instead views the bold, creative, and innovative entrepreneur as being “the agent who is responding to the existing imbalances in the market” (p.150). Kirzner concludes that profit-winning entrepreneurs are those possessing creativity and alertness to the ever-changing price, technology and demand.

Despite Kirzner’s acknowledgement of Schumpeterian qualities in entrepreneurship, there has not been an agreement on whether opportunities are created or discovered. Therefore, Binder and Belz’s (2014) proposition to use the term *recognition* is most fitting since it accepts both creation and discovery of opportunities.

² Kirzner, I. M., 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

2.4.1 Sources of Sustainable Opportunities

Cohen and Winn (2007) and Dean and McMullen (2007) explain entrepreneurial opportunities through the lens of neoclassical economic theory, which assume utility maximization, specifically profit, as the driver of all economic activities. It is suggested that entrepreneurial opportunities exist when the market is at disequilibrium or, in other words, at imperfect state. In one hand, market imperfections contribute to ecological and social degradations, while on the other hand yield to opportunities for sustainable entrepreneurs.

According to Cohen and Winn (2007), there are four market imperfections, namely inefficient firms, externalities, flawed pricing mechanism, and information symmetry that can lead to sustainable entrepreneurship opportunities. Similarly, Dean and McMullen (2007) show how the market failures proposed by the environmental economics theory lead to the creation of opportunities for sustainable entrepreneurs. They also mention externalities and information asymmetry as sources of sustainability opportunities, while suggesting other forms of market imperfections: public goods, monopoly power, and inappropriate government intervention.

2.4.1.1 Inefficient firms

Firms are found to be inefficient in the utilizations of resources, be it in the production process or in the finished goods, which took form in both economic waste and environmental waste (Cohen & Winn, 2007).

2.4.1.2 Flawed Pricing Mechanism

The most detrimental cause for the flawed pricing mechanism is the fact that natural capital, such as clean air and water, is unvalued or undervalued. The available natural resources are priced as if they are inexhaustible and indestructible, thus the final price does not include the monetary consequences of the declining environment. (Cohen & Winn, 2007).

2.4.1.3 Externalities

Externalities, particularly negative externalities, exist when a third party suffers the side effects of producing or consuming certain goods/services. The cost is inflicted on the natural environment (e.g. ground water pollution) and the people (e.g. low air quality). (Cohen & Winn, 2007).

2.4.1.4 Information asymmetry

Information asymmetry occurs when individuals, in this case consumers and suppliers, have different information regarding price, product, and market. Suppliers in most cases have more information compared to the consumers. This leads to uninformed buying decisions that potentially lead to environmental and social degradations. (Cohen & Winn, 2007; Dean & McMullen, 2007).

2.4.1.5 Public Goods

In spite of its benefit for the public, public goods play a part in the prevalent environmental and social problems. The non-excludability of the usage of public goods enables free loaders to enjoy the benefits and increases the demand for the services. As a result, there are unmet social demands that require cost effective solutions. The solutions, however, may not be environmentally friendly. (Dean & McMullen, 2007).

2.4.1.6 Inappropriate Government Intervention

Governments can also inappropriately intervene in business processes by providing subsidies, tax leniency, and/or other economic incentives to certain industries or firms. These incentives not only result in unfair competition, but also lead to environmental damage, especially when the supported industries/firms are concerned with the extraction and utilization of natural resources. (Dean & McMullen, 2007).

2.4.1.7 Monopoly Power

Firms with monopoly power are prone to make unsustainable decisions. The monopoly power allows them to enjoy dominance of the market share and no pressure

from competition; therefore they are less pressured to adopt or change their technology or processes to environmentally friendly alternatives. (Dean & McMullen, 2007).

These market imperfections or failures provide a grim outlook on how business and governmental activities can have negative impact to the environment and the society. It is evident that the environment and the society are susceptible to degradation in the events of market imperfections. The market has to be driven towards its efficient and sustainable state by closing the discrepancy between private and social cost. As a result, numerous opportunities become available for sustainable entrepreneurs. (Dean & McMullen, 2007).

2.5 Sustainable Entrepreneurship As a Process

The study of the nexus between individual entrepreneur and opportunities is best done through the process-view (Belz & Binder, 2013). Moroz and Hindle (2011) support this argument by suggesting that unity and exploration of new areas within entrepreneurship research is possible by viewing entrepreneurship as a process. The process view is focused on actions, specifically “what entrepreneurs actually do and how they do it” (p. 784) and it includes “all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them” (p. 788). Their actions are found to be unique due to varying influencing factors that can constrain or support the process. The factors include the establishment and usage of social networks; their concept of opportunity; their cognitive process and routines; and the various environmental and contextual factors that are constraining and/or supportive. As consequence, entrepreneurs need to organize these factors creatively and strategically. This leads to a realization that entrepreneurship process is never a smooth and repeatable process, thus making it a non-linear process.

Research in entrepreneurial process has resulted in high variety in process model. Moroz and Hindle (2011) analyze the existing models with the intention to identify a model that is applicable to every entrepreneurial process (generic) and is exclusive to entrepreneurship (distinct). The authors identify and scrutinize four models

(i.e. Gartner, 1988; Bruyat & Julien, 2000; Sarasvathy, 2001 and Shane, 2003) that are found to be most fitting to the generic and distinct requirements.

2.5.1 The Emergence Perspective

The focal point of Gartner's (1988) model is the process of new venture creation, which is a process driven by individual expertise and the desire to make a profit. The model includes six generic actions that entrepreneurs do in building their new venture, which are (1) locating the business opportunity; (2) accumulating necessary resources; (3) producing the product or service; (4) marketing the product or service; (5) building the company; and (6) responding to the government and society. These actions are found to be existent in venture creation process, however they are not exclusive to entrepreneurial process since any business can undertake the same actions. (Moroz and Hindle, 2011).

2.5.2 The Value Creation Perspective

Bruyat and Julien (2000) propose a new model that is built upon Gartner's dimensions. The authors make some improvements to the model by not limiting entrepreneurship process to venture creation for profit generation, but expanding it to the creation of new value that can be for profit, non-profit, or in the public sector. New value creation means that the entrepreneur is involved in market exchanges (e.g. sales, trades) or non-market exchanges (i.e. building the community), or both. Therefore, entrepreneurial process does not necessarily result in a new business. Furthermore, the authors emphasize on the dialogic between the individual entrepreneur and new value creation. The individual entrepreneur has a project of creating new value and is committed to undertake the project towards completion. In the course of establishing the new value, a large part of the individual entrepreneur's life and relations are affected.

2.5.2 The Creative Process Perspective

Sarasvathy (2001) proposes a different model of entrepreneurial process. The model is widely known as the effectuation, where entrepreneurs use effectual logic by constantly assessing themselves (who they are, what they know, and whom they know)

instead of the opportunities. In contrast with causal logic that emphasize on predicting uncertainty, effectual logic is rooted on embracing uncertainty. Effectuation has four underlying principles that are rooted on entrepreneurs' reaction towards uncertainty. First, in facing the scarcity of resources, entrepreneurs invest on what they could afford to lose. Second, strategic alliance with stakeholders and, in some cases, competitors is the key to minimizing uncertainties. Third, readiness to exploit contingencies is a form of competitive advantage. Fourth, unpredictability of the future requires entrepreneurs to focus on things that they can control.

2.5.3 The Opportunity Discovery Perspective

The final model is proposed by Shane (2003) and it is judged by Moroz and Hindle (2011) to be the most unifying framework of entrepreneurial process. The model is "based upon the nexus of an individual and opportunity (Moroz & Hindle, 2011, p. 806)", in which opportunities that are deemed to be profitable or valuable are being discovered, evaluated, and exploited by the individual. The process of discovery, evaluation, and exploitation of opportunities lead to a new means-end relationship where the individual perform different tasks, such as resource acquisition, strategies formulation, and project organizing, in order to achieve the end (profit). Each of the components is moderated or mediated by the individual's attributes (e.g. psychological and demographic factors) and the environment (e.g. the industry and the market). Shane also aligns his model with the Schumpeterian view of opportunity, in which opportunities are novel and to be discovered. (Moroz and Hindle, 2011).

2.5.4 Entrepreneurial journey

McMullen and Dimov (2013) study entrepreneurship as a process. Process is defined as "a sequence of events or activities that describe how particular things change over time" (p. 1482). From the description, it is evident that time and sequence are two important factors in a process; therefore, they go beyond studying entrepreneurship as series of actions and study entrepreneurship as a journey that unfolds over time.

Entrepreneurship is characterized by novelty, new entry, and new combination of resources. The condition of being novel and new cannot be detached with time.

Timing is crucial. Novelty, for example, is highly dependent on the introduction time. The need may not yet exist when it is too early or outdated when too late. In addition to timing, the sequence of events and interactions, as well as the sequence of acquiring information also affect the course of creating novelty and/or newness. (McMullen and Dimov, 2013). For instance, a biotechnology student goes to an agricultural village for holiday after finishing her thesis in biogas comes up with a communal biogas system. Should the sequence of event changes (the holiday happened before the thesis), the novel idea may not be created.

Just as any journey, entrepreneurial journey has a beginning and an end. McMullen and Dimov (2013) suggest that the starting point of studying entrepreneurial journey is at the conclusion of the journey since the outcome and the events leading to the outcome can be determined. The end of the journey is indicated with financial viability, which takes form in positive or unsustainable negative cash flow, of the product/service. Financial viability is found to be a good indicator for reasons that uncertainties no longer become an issue since the product/service concept is already determined and perceived to be desirable, thus production is feasible and viable. In most instances, activities do not stop after financial viability is reached. In this condition, it is possible to continue the journey since different product/service or market has its own set of uncertainties, challenges, and adventures. The journey does not have an ending. Therefore, it is necessary for the journey to have clear expected outcome, which is constructed out of a collection of motives, means, and opportunities.

By knowing the end of the journey, it is then possible to investigate the beginning. There are many possibilities of the starting point. It may start with an idea, a realization of profit potential, or a desire for profit. These starting points, however, are preceded with events and other factors that are unique for every individual. The preceding events or factors, although highly researched, are not emphasized in entrepreneurial journey because the mere existence of an idea or a desire is not enough to establish a venture. An individual needs the necessary information, motives, means and opportunities to build on the idea/desire. Therefore, the focus is on the actions ensuing the idea instead of idea formation. (McMullen & Dimov, 2013).

McMullen and Dimov (2013) employ a psychology model of ego development, *The Hero's Journey*, to illustrate the phases of entrepreneurial journey. There are six stages: innocence, the call, initiation, allies, breakthrough and celebration. At the time of innocence, the individual is ignorant of profit potential. S/he considers a new venture idea at the call phase, and then s/he turns the idea as a goal and moves forward with the venture at the initiation phase. These three phases mark the beginning of the journey, however the sequence can be different for each entrepreneur. At these phases, the entrepreneur is facing software constraints related to the origination of the idea, such as creativity, knowledge, education, and other mental prerequisites. At this point of time, the entrepreneur has a subjective belief that his/her idea has the potential to solve a particular problem that will generate profit.

The journey continues with the attempt to recruit other people as allies to work together to achieve the new goal. The allies, who among others are stakeholders, investors, and employees, assist the entrepreneur by contributing their knowledge, skills, and/or resources. With the allies' contribution, the entrepreneur is able to make adjustments to the idea or the goal. Afterwards, the entrepreneur introduces the new idea, which has been turned into a product/ service. The journey concludes with the celebration phase where the entrepreneur enjoys positive cash flow. During the last three phases, entrepreneurs are faced with hardware constraints, which are various impediments related to material resources needed to transform the idea into a viable product/service. (McMullen and Dimov, 2013).

The model by McMullen and Dimov has given a perspective on how entrepreneurial process begins and ends. However, in my opinion, the model has two weaknesses. First, it has not captured the largest portion of the journey, which are the activities between initiation and celebration. McMullen and Dimov (2013) mention allies and breakthrough, but there are surely activities other than recruitment of allies and product/service launch that lead to positive cash flow. Second, unlike the rest of the process models, this particular model does not put much emphasize on the nexus of the individual entrepreneur and opportunities.

2.5.5 Sustainable Entrepreneurship Process

A new process model specifically for sustainable entrepreneurship process has recently emerged. Belz and Binder (2013) conduct a multiple case study research to formulate a process model of sustainable entrepreneurship. The model consists of six stages (see Figure 2):

2.5.5.1 Recognizing social or ecological problem

The entrepreneurial journey begins with the individual recognizing either a social or ecological problem in his/her private or working life (Belz & Binder, 2013). The previously mentioned market imperfections proposed by Cohen and Winn (2007) and Dean and McMullen (2007) may be the source of socio-ecological problems for the individual.

2.5.5.2 Recognizing social or ecological opportunities

Instead of being deterred by the problem, the individual finds a solution to the problem. The individual then set a goal in which the solution is transformed into customers' value. (Belz & Binder, 2013).

Figure 2: Sustainable Entrepreneurship Process



Source: Belz and Binder (2013).

2.5.5.3 Developing double bottom line solution

The entrepreneur needs to ensure that the problem is feasible and there are existing needs and customer groups to target the solution on. At this time, the

entrepreneur formulates a detailed business plan, which contains the values being offered and both financial and non-financial resources needed to execute the plan. If the individual decides to enter the market at this point, s/he either becomes a social entrepreneur or an ecopreneur. If s/he put off market entry with the intention to develop the remaining element of sustainability (social/ecological), then s/he moves on to the subsequent phases. (Belz & Binder, 2013).

2.5.5.4 Developing Triple Bottom Line solution

It is found that the sustainable solution or, in other words, the Triple Bottom Line solution is not formed simultaneously. The individual usually recognizes social (or ecological) solution first and at later time recognizes the need to integrate ecological (or social) solution in the business plan. Due to the individual's lack of knowledge as a new entrant and also the uncertainty of the sustainability issue, successive introduction of the Triple Bottom Line element is appropriate. In this way, the individual can reduce the complexity of the task. (Belz & Binder, 2013).

2.5.5.5 Funding and forming of sustainable enterprise

With the detailed business plan in hand, the individual needs some seed capital, which is funding during the early or pre-revenue stage of the venture, to form the sustainable venture. The seed capital can be acquired from his/ her own personal fund (bootstrapping) and/or from external sources (e.g. family and friends, investors, crowdsourcing). Prior researches that touched on matters related to funding of non-conventional ventures had suggested that sustainable ventures were most likely to experience difficulty in obtaining external funding due to profitability issues. However, this multiple case studies result indicates that sustainable opportunities open up new access to public and unconventional sources of funding. For this reason, sustainable ventures may not have less chance of securing funding as prior research predicted. (Belz & Binder, 2013).

2.5.5.6 Creating or entering sustainable market

Unlike the model proposed by McMullen and Dimov (2013), the completion of this sustainable entrepreneurship process is marked by market creation. The high social and environmental standard of sustainable venture refrain them from competing on price, which prompt them to compete on quality instead, and from entering the mass-market segment. This condition presents three possible scenarios for sustainable entrepreneurs to enter the market. First, when there is no sustainable niche yet, the entrepreneur can create a new one. Creating a new niche allows the entrepreneur to enjoy monopoly power in which there is no competition barrier. Nonetheless, customer related barriers remain to be high since the sustainability issue may not be known and/or the customers are still skeptical of the offering. Second, the entrepreneur may enter an existing sustainable niche where the entrepreneur is able to enjoy the lower customer-based barriers because they are already familiar with the sustainability issues and solutions proposed by earlier entrants. However, the entrepreneur may face competitor-based barriers, such as those related to the 4Ps (i.e. price, product, promotion, place). Finally, the entrepreneur may enter a new sustainable market segment, which is usually created as a consequence of a shift in demand or regulation. (Belz & Binder, 2013).

Compared to the earlier models, Belz and Binder's (2014) model provides a more comprehensive understanding of entrepreneurial process. First, the model focuses on the actions of the entrepreneurs (what they do and how they do it). Second, it involves the Double and Triple Bottom Line of sustainability that is crucial for sustainable entrepreneurship research. Third, it is the only model that explicitly place funding acquisition as a part of venture formation process. Finally, the model is established based on empirical evidence. The model nonetheless has some shortcomings. The elements of individual attributes, the environment, and social networks are not referred to in the model. The authors suggest an investigation of the effect of individual attributes on each phase of the model. I, however, think that the effect of the environment should also be investigated since both individual attributes and the factors are found to be affecting entrepreneurial process (e.g. Shane, 2003). Moreover, the authors do not acknowledge the importance of social network even

though it is almost impossible that a venture is built without the support of any third party. Nevertheless, the model is simple and easily understood, thus can be used as a base for future research on the process/ journey of sustainable entrepreneurs.

2.6 Legitimacy of Sustainable Venture

In relation to the Sustainable Entrepreneurship Process model, research in sustainable entrepreneurship has given special attention to the first four phases, from the recognition of social or ecological problem up to the development of the Triple Bottom Line solution. There is limited literature focusing on the process of funding and formation of the sustainable enterprise even though this phase is the *make or break* point of any sustainable entrepreneurs. In spite of the novelty or the brilliance of the Triple Bottom Line solution, the venture cannot be established in the absence of sufficient funding. Scarcity of resources, both financial and non-financial, is a grave problem that most aspiring entrepreneurs face.

Most entrepreneurs start with bootstrapping, but external funding would be necessary for growth and further establishment of the venture. Just as social entrepreneurs, sustainable entrepreneurs may embark on hybrid organizing and form inter-organizational relationship in order to establish a strong relationship with financial providers. Battilana and Lee (2004) define hybrid organizing as “activities, structures, processes and meanings by which organizations make sense of and combine multiple organizational forms” (p. 398). Hybridity can be in forms of combination of multiple organizational forms (e.g. business and charity, business and government) and/or of multiple institutional logics. Sustainable entrepreneurs can then make use of the hybrid financing structures, which enable them to cooperate with an array of financial providers, such as charity institutions, commercial enterprises, and government institutions. (Battilana and Lee, 2004).

Hybridity, however, may trigger internal and external tension due to the conflicting nature of organizational forms and institutional logics. Sustainable entrepreneurs are likely to adopt hybridity into their organizational form by combining

aspects of business and charity. Such combination leads to tension, as social/environmental impact is not as easily measured as financial performance. (Battilana and Lee, 2004). De Clercq and Voronov (2011) emphasize that in the formation of sustainable enterprise sound socio-ecological values cannot be separated from economic viability. Entrepreneurs cannot detach themselves from their obligation in maintaining and/or improving the financial returns of the owners and shareholders. Like conventional entrepreneurs, sustainable entrepreneurs need to be alert of overlooked economic opportunities, which take the form of revenue generation, cost reduction, and/or efficiency. That being the case, researchers question whether the logic of sustainability and profitability are complementary or conflicting. Earlier researches found that the two logics require a trade-off in a way that entrepreneurs had to convince investors of the sustainability benefits when financial success was still uncertain. The more current researches, however, maintains the complementary nature of the two logics since the existence of market failures present sustainable opportunities for entrepreneurs to exploit.

In relation to the economic viability of sustainable ventures, stakeholders' acceptance and investors' support cannot be easily acquired despite the demand for sustainable entrepreneurial actions. The values of conventional entrepreneurship are limited to a handful of parties (e.g. customers, investors, the entrepreneur), while ventures motivated by other causes, such as sustainability, provide values to more stakeholders. Even so, the stakeholders, particularly investors, want to be convinced that the values are realistic and truly beneficial. Investors need to believe in the proposition. Entrepreneurs therefore have to establish the confidence of the appropriate investors since the investors invest not only their money, but also their commitment, expertise, and time. (Renko, 2012). Establishing the confidence of investors is challenging for sustainable entrepreneurs since it is not yet possible to accurately measure social and environmental impact. As suggested by Slaper and Hall (2011), unlike economic impact that can be measured in monetary terms, there has not been an agreed common unit to measure social and environmental impact. As a result, sustainable entrepreneurs cannot accurately propose financial and impact performance to prospective investors.

In the absence of procedures to measure the Triple Bottom Line impact, entrepreneurs need to establish legitimacy: “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate with some socially constructed system of norms, beliefs and definitions” (Drori and Honig, 2013, p. 346). According to Drori and Honig (2013), legitimacy is categorized into three: cognitive, pragmatic and moral. Cognitive legitimacy is related to the existing cultural account. Pragmatic legitimacy is dependent on the personal interest of the party that gives legitimation (e.g. members of the stakeholders). Finally, the focus of moral legitimacy is on “how favorably (or unfavorably) the organization is viewed by its constituency or its macro-environment” (p. 348).

Drori and Honig (2013) indicate that legitimacy is built both internally and externally. The focus of internal legitimacy is the entrepreneur’s relationship with actors within the enterprise (e.g. employees). The internal legitimacy is built upon the entrepreneur’s legacy, which is oftentimes expressed in the enterprise’s vision, mission and values. To attain internal legitimacy, the entrepreneur has to ensure that internal actors accept the legacy, thus willingly behave in accordance to the legacy. External legitimacy, as the term imply, is concerned with external actors, such as investors and customers, as well as how the enterprise adhere to “organizational fields, regulatory agencies, professional associations, and reputational norms” (p. 348). The alignment of internal and external legitimacy leads to the acquisition of financial and non-financial support from different stakeholders.

Entrepreneurs need to legitimize themselves and their ventures in order to secure external funding (Lounsbury & Glynn, 2001), as well as to survive in the market (Suddaby & Greenwood, 2005). Suddaby and Greenwood (2005) maintain that legitimacy for novel ideas can be achieved if the entrepreneur fit into the prevailing institutional logic rather than the innovativeness of the idea. Every field or industry has its own institutional logic, which is built upon underlying assumptions. The logic also serves as a guideline in the particular field/industry for acceptable behaviors, strategies, and inter-organizational relationship.

In line with Suddaby and Greenwood's assertion on the need for entrepreneurs to fit in to the field's institutional logic, De Clercq and Voronov (2009) also express the demand for entrepreneurs to fit in. According to De Clercq and Voronov (2009), as new entrants, entrepreneurs have lower familiarity and credibility in the market and on the eyes of the customers compared to established businesses. Low familiarity and credibility cause the process of legitimation to become more challenging. There is a paradoxical demand for entrepreneurs in which entrepreneurs are expected to *fit in* and *stand out*. In the one hand, entrepreneurs are required to *fit in* by adhering to the prevailing business norms and behaviors. Adherence is crucial since entrepreneurs need validation from other businesses and the customers. On the other hand, there are high expectations of the industry and the stakeholders that entrepreneurs would bring change (*standing out*). The increasingly sustainability-conscious public, consumers, government, and investors expect new entrants to challenge the normal conventions.

Lounsbury and Glynn (2001) propose the use of storytelling to gain legitimacy, as it can help entrepreneurs to explain, rationalize and promote the new venture despite the lacking track record, asset value, and profitability. Moreover, entrepreneurs can use stories to create stakeholders' favorable interpretation on the entrepreneur and the new venture. The favorable interpretation is most likely lead to financial support. Furthermore, Suddaby and Greenwood (2005), suggest the use of rhetoric, or the art of persuasion, to gain legitimacy, especially when the entrepreneur wants to stand out and/or challenge the prevailing institutional logic. The authors propose a rhetoric strategy that combines the use of institutional vocabularies and theorization of change. Institutional vocabularies are used to communicate and interpret different logics and reality with the use of words, expressions, and meanings. Theorization of change is related to the five different ways to interpret change with the use of rhetoric in five different ways: ontological, historical, teleological, cosmological, and value-based theorization.

To sum up, sustainable entrepreneurs can build legitimacy by ensuring that stakeholders perceive the venture as fulfilling the concept of sustainable development. Therefore, the venture has to be built, run, and evaluated based on the three pillars of

the Triple Bottom Line. The entire strategies and decision-making should be in line with the 3Ps and the industry's regulations and norms. Validation given by the stakeholders enables entrepreneurs to acquire the necessary resources to build the venture regardless of the uncertainty of the future financial performance and socio-ecological impact. (Drori and Honig, 2013).

Bringing into mind the definition of sustainable entrepreneurship by Binder and Belz (2014), it is conveyed that sustainable entrepreneurs are required to “*bring into existence future goods and services*”. Since the goods and services produced by sustainable entrepreneurs are considered as novel according to the existing market standard, legitimacy and financial viability become crucial for these entrepreneurs to proceed with the final phases of their entrepreneurial journey and beyond. This paper will therefore attempt to explore the link between legitimacy and financial viability in a sustainable entrepreneurship journey. Three aspects will be the focus of the study. We will first look at the critical incidents within the journey of the selected sustainable entrepreneur in establishing and maintaining her enterprise. The entrepreneur's actions in confronting the critical incidents have direct and indirect effect towards legitimacy formation and funding acquisition. Since the entrepreneur is found to have formed various inter-organizational partnerships, the second focus is on the interplay between inter-organizational relationship and legitimacy and financial viability. In consideration of the entrepreneur's long-standing presence in the market, the third focus is on the practices that maintain the established legitimacy and financial viability.

3. METHODOLOGY

Eriksson and Kovalainen (2008) mentions that researchers have to define their ontological and epistemological principles prior to designing the methodology of their research since the research problem, research design, methods of observation, measurement and type of analysis must be in agreement with the respective principles. Ontological principles are namely realism, relativism, and nominalism, whilst epistemological principles are positivist and social constructionism (Eriksson & Kovalainen, 2008; Easterby-Smith, Thorpe, & Jackson, 2012). According to Farquhar (2012), a researcher's ontological stance depends on his/ her way of viewing the world. I reflected on the question proposed by Farquhar, "Is reality objective in nature?" and maintained that there is no objective reality. To put it simply, I reached the conclusion that my ontological principle was nominalism.

Nominalist ontology, according to Easterby-Smith, Thorpe, and Jackson (2012), views truth as inexistent and the main interest is on "how people attempt to establish different version of truth" (p. 21). This ontological principle is fitting for my research, as I initially wanted to learn firsthand about the experience of sustainable entrepreneurs in acquiring financial support for developing their ventures. Every entrepreneur had different experiences, which were affected by their own behavior, capabilities, networks, as well as the characteristics of the source of investment that they were approaching. Despite the varying experience, anyone could nevertheless learn from the experience of each entrepreneur. I thought that whatever worked for these entrepreneurs would most likely work for others too.

After knowing my ontological principle, I proceeded to settling the right epistemological principle. Epistemology in scientific research is related to the method of presenting and arguing knowledge (Eriksson and Kovalainen, 2008). The most suitable epistemological principle is the one related to the nominalist ontology, which is social constructionism. The focal point of social constructionism is how people give meaning to and make sense of their experiences. Therefore, the emphasis of the research

should be on how the entrepreneurs think, feel, and interpret their experiences. (Easterby-Smith et al., 2012).

Both nominalism and social constructionism principles implicated on my research design. The combination of both principles required me to follow the strong constructionist perspective in designing the research methodology. The research were designed to contain heavy reflexivity of the research participant(s) and of myself as the researcher. The type of data was discourses or experiences of the entrepreneurs, while the data was analyzed to gain deep understanding on the research problem. (Easterby-Smith et al., 2012).

3.1 Research Strategy and Method

In light of the importance of financial viability and legitimacy of sustainable entrepreneurs, the purpose of this thesis is to explore how legitimacy and financial viability affect sustainable entrepreneurship journey. This purpose, however, is different from the initial objective, which was to learn from the experience of different sustainable entrepreneurs in securing funding for starting their enterprise. In both instances, I had to examine the three conditions proposed by Yin (2003) when considering the appropriate research strategy: (1) the type of research, (2) the degree of the researcher's control over the events, and (3) the degree of focus on recent or past events. It could be determined from the research objective that I intent to find out 'how' a contemporary phenomena, which I had no control over, occurs. Therefore, case study was the most appropriate strategy for this research even though the research objective had been changed.

Case study is "apt for exploring, explaining, understanding and describing the research problem or question" (Farquhar, 2012, p. 39). This particular strategy allowed me to conduct an in-depth study on a single phenomenon, as well as to have a holistic view of the various relationships and social processes within the phenomenon (Descombe, 2010). Furthermore, I decided to pair the intensive case study strategy with the qualitative research method in order to thickly describe the entrepreneur's

“perspectives, conceptions, experiences, interactions, and sense-making processes” (Eriksson & Kovalainen, 2008, p. 120). The thick descriptions were compiled into an engaging story that was analyzed to answer the research problem. (Eriksson & Kovalainen, 2008).

The selection of participants in qualitative studies was dependent on the researcher’s personal view (Farquhar, 2012), hence it was permissible for me to select participants that I thought could provide important perspectives in the study. Initially, there were three sustainable entrepreneurs selected as prospective subjects of the study on the basis of their success in sustaining their enterprise. Moreover, they had close but professional relationship with one of my family members, thus making it easier for me to contact them for the study. The entrepreneurs were as follows:

1. Name : **Tri Mumpuni**
Organization : *Inisiatif Bisnis dan Ekonomi Kerakyatan (IBEKA)*
Business Area : Community based Microhydro
Location : Approximately 82 villages in Indonesia
Awards : Tempo Woman of the Year 2006, Ramon Magsaysay 2011, The Ashden Award 2012, Indonesian Women of Change Award 2013

2. Name : **Leonard Tobing**
Organization : *Pusat Pelatihan Pertanian dan Pedesaan Swadaya (P4S Agrolhutan) or Agrolhutan Farming Center*
Business Area : Sustainable farming
Location : North Tapanuli, Sumatra, Indonesia

3. Name : **Ardy Kohar**
Organization : *PT. Cahaya Sinar Kasih*
Business Area : Agro-Silvopastoral
Location : Lembata, Kupang, Indonesia

3.1.1 Multiple case study versus Single Case Study

As the research progressed and I completed the draft of the literature review, I had to reconsider on whether multiple case study was the best research strategy. I was concerned that the prospective participants seemed to be lopsided in terms of their social and environmental impact. Tri Mumpuni, in particular, had been well known for the social and environmental impact of her microhydro power plants movement. She was also recognized at both national and international level. Without any disrespect on their successful enterprises, the impact made by Leonard Tobing and Andy Kohar was yet to be uncovered and they were still unknown at the national level. This being the case, I became inclined to conduct a single case study on Tri Mumpuni. Nevertheless, this inclination was not without reservations. I was worried that there may not be enough data for analysis nor findings relevant to answer the research question.

I decided to have only one participant for the study after much consideration. As I am an interpretative thinker, a single case study was very fitting since I would be able to explore the problem in more in-depth (Farquhar, 2012). Moreover, Bill (2000) and Zalan and Lewis (2004) argue that rich and in-depth understanding from a single case is better than a superficial understanding from multiple sources. Other than that, I was convinced by my own knowledge of Tri Mumpuni that her journey was intrinsically interesting that ‘the findings are likely to reach a wider audience and the research itself is likely to be a more exciting experience’ (Descombe, 2010, p. 59).

3.1.2 About Tri Mumpuni

Tri Mumpuni was born on August 6, 1964, in Semarang, Indonesia. She was a social economist who always wanted to help the poor in the rural communities. (Edward, 2011). She frequently accompanied her husband, an activist of the microhydro movement, to visit remote villages in Indonesia, such as the ones in West Java and Kalimantan/Borneo (Ashoka, 2006.). The villages were so remote that there were no road infrastructures for vehicles to drive on. Sometimes she had to walk for as long as 9 hours to reach the villages. (Bashri, 2009).

Tri Mumpuni was concerned about the villages having no access to electricity. The good flow of water in the villages enabled the use of microhydro technology to provide electricity. The technology was relatively simple compared to other renewable power generating technologies, such as solar and wind power. The Indonesian government had implemented a number of microhydro related projects, which unfortunately only a few succeeded. (Ashoka, 2006.). Tri Mumpuni realized that the failure was because the village community was not involved in the process. The community had to possess a sense of ownership of the power plant and had to be convinced of the benefit of having electricity in the village. She then developed a new model where the community built and owned the power plant (Bashri, 2009; Ashoka, 2006.). To my knowledge, the power plants not only generated electricity for the village, but also generated income from selling the excess electricity to nearby villages. The villages became more prosperous as the income allowed them to build other infrastructures.

Tri Mumpuni established an institution known as *Inisiatif Bisnis dan Ekonomi Kerakyatan* (IBEKA or People Centered Business and Economic Initiative) (Sovirahayu, 2011). Through IBEKA, Tri Mumpuni built other microhydro plants in 82 villages. It was important to note that the institution did not receive any funding support from the Indonesian government (Bashri, 2009) and had to independently find own source of funding. For this reason, it would be interesting to learn about her endeavor in building legitimacy and in reaching financial viability.

3.2 Data Collection

Case study encouraged the use of multiple data sources (Descombe, 2010) and the aim was to uncover Tri Mumpuni's ongoing thinking and bring out her unconscious thoughts through different data collection methods (Bill, 2000; Woodside, 2010). Two types of data were collected for this research: primary and secondary data. In the beginning, I wanted to heavily rely on primary data that were collected through personal interview with Tri Mumpuni. In consideration of Tri Mumpuni's tight schedule and her

frequent visits to remote parts of Indonesia, it was not possible to arrange many interview sessions with her. Therefore, I had to heavily rely on secondary data, mainly in forms of articles and videos featuring her lectures, interviews, and promotion materials.

I decided to add two additional interviews with people who had interacted with Tri Mumpuni in order to get additional first-hand information. The first interviewee was Mr. EG, who asked to remain anonymous. Mr. EG was working in the Ministry of Foreign affairs of the Republic of Indonesia, as the Head of the Sub-Division of Technical Cooperation for Asia and Pacific Region (Directorate of Technical Cooperation) when he first met with Tri Mumpuni. He was a member of the Technical Cooperation team that collaborated with Tri Mumpuni to provide microhydro training to less developed countries, namely Cambodia, Laos, Myanmar, Vietnam, Vanuatu, Fiji, and Solomon Islands. The collaboration continued even after Mr. EG was promoted to the position of the Secretary of the Directorate General of Information and Public Diplomacy. Mr. EG and Tri Mumpuni collaborated for around five years. Nevertheless, Tri Mumpuni continued to collaborate with the Directorate of Technical Cooperate long after Mr. EG held a new position.

The second interviewee was Monica Yanuardi, an MSc student in Social Science in Psychology at Lund University, Sweden. Monica was a participant of Young Leaders of Indonesia 2012 where Tri Mumpuni was one of the speakers and mentors. At the time, Monica was a final year student in Psychology at the Gadjah Mada University, Indonesia. Although Monica did not have a close relationship with Tri Mumpuni as Mr. EG, she could give some insights on Tri Mumpuni's power of speech and the content of her talks.

3.2.1 Semi-Structured Interviews

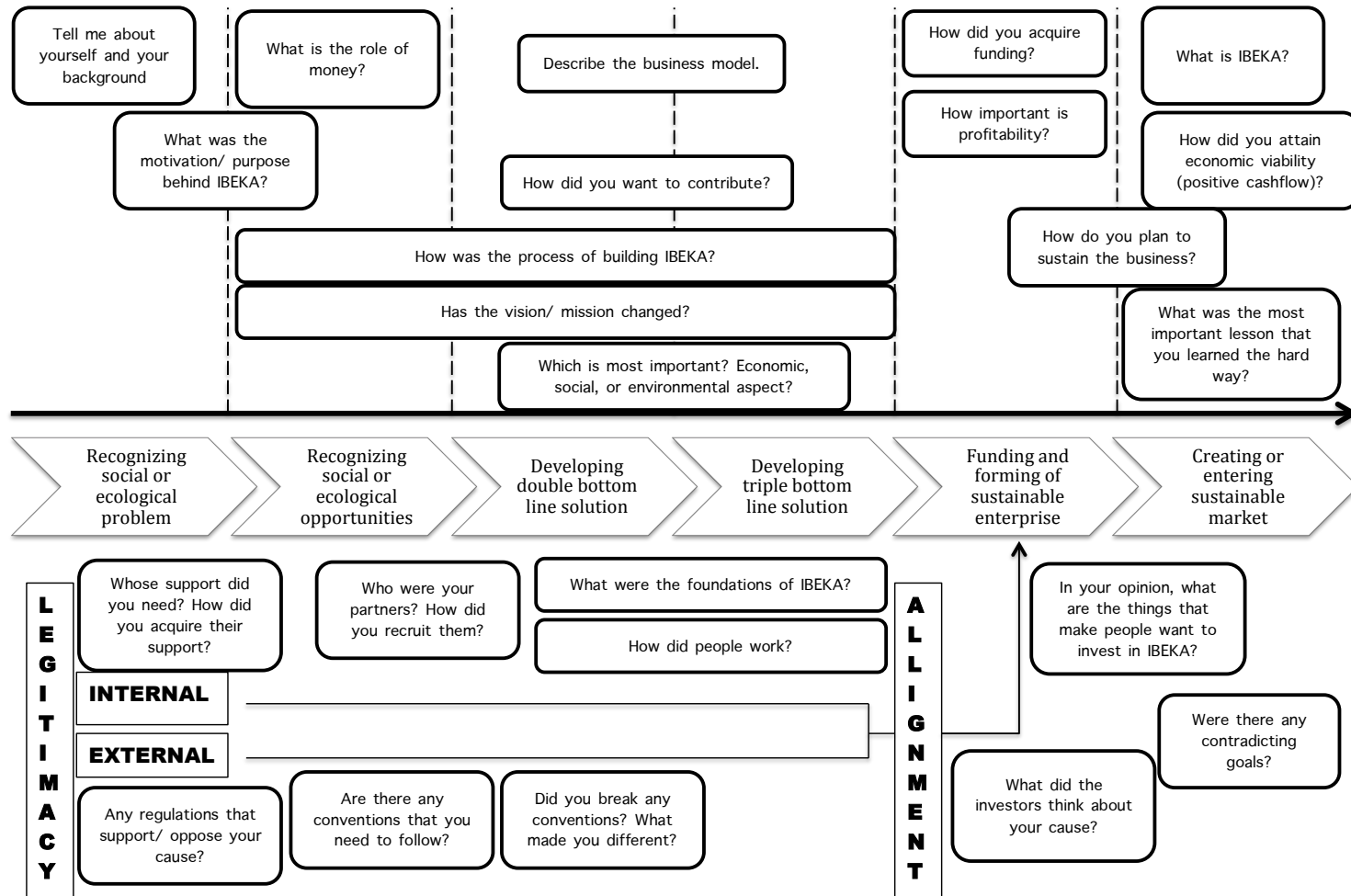
The interview with Tri Mumpuni was a semi-structured interview. In making the interview questions, I combined the six stages of sustainable entrepreneurship process model by Belz and Binder (2013) and the process model of internal and external legitimacy by Drori and Honig (2013). I then listed some open-ended questions that were related to each aspect of both models as illustrated in Figure 3 (on the next page).

The questions acted merely as a guide for the interview and was not stringently followed since the interview should naturally flow and in accordance to the answer given by Tri Mumpuni. The first interview was conducted by phone on August 26, 2014 at 18:00 (GMT +1). The interview was around 38 minutes. Farquhar (2012) states that every interview should be recorded and transcribed, thus the interview was recorded with Tri Mumpuni's permission and was transcribed for easier analysis (see Appendix 2.1).

3.2.2 Unstructured Interviews

Prior to interviewing Mr. EG and Monica, I had already completed the findings section and was in process of writing the discussion section. Therefore, I already had a clear understanding of the case study. The objective for interviewing Mr. EG was to find out (1) how Tri Mumpuni established a long-term cooperation with the Ministry of Foreign Affairs and (2) what were Mr. EG's impressions of Tri Mumpuni. The interview with Monica was aimed to understand how Tri Mumpuni inspired and convinced the audience through her talks. With these clear goals in mind, an unstructured interview was most fitting as it allowed me to delve deeper into each responses. Just as the interview with Tri Mumpuni, these interviews were also recorded and transcribed (see Appendix 2.2 and 2.3).

Figure 3: Semi-Structured Questions for the Interview with Tri Mumpuni



3.2.3 Secondary Data

The secondary data for the case study was obtained from online articles and videos. The materials were in English and Indonesian. Relevant materials in Indonesian were translated when writing this thesis.

The online articles were found by using Google search engine with the keyword 'Tri Mumpuni'. There were less than fifty articles about Tri Mumpuni but only a few were selected as the articles were evaluated on 'their authorship, their credibility, and their authenticity' (Descombe, 2010, p. 223). Hence, the selected articles were chiefly from recognized online newspapers and governmental and non-governmental organizations. Only one blog material was used, which was written by Kristian Erdianto (2014), after personally contacting the writer through email. He was a journalist for Voice+ magazine and the blog post was actually an article that he did for the magazine. He informed me of his sources for the article, which were personal interviews with IBEKA staffs, an article written by Tri Mumpuni, and articles from Indonesian magazines.

The use of online articles was advantageous in terms of easy access to data, cost-effectiveness, and permanence of data (Descombe, 2010). Nevertheless, other than the risk of credibility of the source, which I tried to minimize by selecting articles from credible organizations, there was the risk of overinterpretation. The risk of overinterpretation occurred when the documents posed more interpretations rather than the reality of the subject at hand (Descombe, 2010). With the intention to minimize overinterpretation, as well as to obtain rich data for the case study, quasi-primary data in the form of video materials featuring Tri Mumpuni was also used.

The video materials were found through Google search engine for videos with the keyword 'Tri Mumpuni'. In this case, the credibility of the source was irrelevant since the selected videos were only those with Tri Mumpuni herself talking. The videos that were found were interviews with Tri Mumpuni and Tri Mumpuni delivering lectures and speeches. Since not all videos were relevant to this particular research, only 24 videos were used. The relevant parts of each selected videos were transcribed for easier analysis (see Appendix 3).

3.3 Data Analysis

I used the inductive-oriented strategy in analyzing the data since it fit with my ontological and epistemological principles. With this strategy, I looked for description of events, behavior, and/or interactions in the empirical data, as opposed to testing the data against a predetermined framework. (Eriksson & Kovalainen, 2008). To make case study more engaging and flowing, the descriptions were expressed through narration, which had “a plot, exposition, context, characters, and sometimes a dialogue” (p. 131).

Data analysis should not be done after the researcher felt that the data had been completely gathered. The analysis should be done simultaneously with data gathering. (Silverman, 2005). Furthermore, there were massive amount of data from both primary and secondary sources that were meaningless unless dissected, deciphered, and compiled into meaningful narration to illustrate Tri Mumpuni’s journey in maintaining the legitimacy of her enterprise. In view of the fact that there was a considerable amount of data, I undertook the data analysis process in stages, starting from the gathering and analysis of articles and followed by the first interview, videos, and, finally, the two interviews with Mr. EG and Monica Yanuardi.

Eriksson and Kovalainen (2008) states that the data should be assembled thematically or chronologically and/or apply systematic coding to label the data according to the events, issues, occurrences, etc. Since I began with the analysis of articles, the data was assembled into five thematic groups: (1) Belz and Binder’s (2014) sustainable entrepreneurship process model; (2) Drori and Honig’s (2013) process model of internal external legitimacy; (3) About IBEKA; (4) The impact of IBEKA; and (5) Source of funding.

The interviews and the videos were fully transcribed (see Appendix 2 and 3) before being analyzed. At this stage, I used a different strategy in analyzing the interview and videos because the contents were almost purely Tri Mumpuni’s personal feelings, perceptions, and opinions. Instead of using the earlier thematic groups, I looked for recurring keywords and contexts (see Appendix 1.1). I subsequently grouped the keywords/ context according to the five thematic groups, as shown in Appendix 1.2.

The ones that did not fit into the group were put into independent groups (social capital and other).

Upon completion of the coding process, I realized that the data was still meaningless, as I could not compile them into a narration of Tri Mumpuni's journey. Therefore, I drew Figure 4 that chronologically illustrating the various critical incidents along Tri Mumpuni's journey to guide me in writing the narration, which could be read in the Findings section.

Figure 4: An illustration of Tri Mumpuni's Journey



3.4 Evaluation of the Study

3.4.1 Ethical Considerations

There were two ethical precautions that I need to take when conducting this research. The first ethical issue was related to the confidentiality and anonymity issues

in the collection of primary data (Eriksson & Kovalainen, 2008; Farquhar, 2012; Silverman, 2005). Trust and good relationship was crucial in conducting good interviews (Easterby-Smith et al., 2012). The interview with Tri Mumpuni contained her personal opinion, especially about the government of Indonesia. Nevertheless, it would not be possible for her to remain anonymous since the research was a single case study and she was the reason for the research being significant. In order to resolve both confidentiality and anonymity issues, I had informed Tri Mumpuni, Mr. EG and Monica Yanuardi in advance of the reason for the interview. They were well aware that the interview would be used as a research material for my master's thesis, which would be made public upon completion. Moreover, I asked for their consent to record the interview before the interview began. Anonymity was an issue for Mr. EG; therefore, I respected his wish to remain anonymous.

During the initial contact, I informed Tri Mumpuni, Mr. EG and Monica Yanuardi of the research objective and research problem. I provided them with a brief summary of the research plan so they could make an informed decision for their participation. However, the second issue arised due to the high possibility of the research direction being changed as the research progresses (Silverman, 2005). This issue only affected Tri Mumpuni since her participation was at the beginning of the study. The best way to overcome this was by being transparent at all times (Farquhar, 2012). Therefore, I had informed Tri Mumpuni whenever the research was being steered to a different direction.

3.4.2 Quality of Research

The quality and trustworthiness of qualitative research are evaluated according to credibility, transferability, dependability and confirmability (Eriksson & Kovalainen, 2008; Farquhar, 2012; Zalan & Lewis, 2004). Credibility can be achieved by using the appropriate research method to solve the research problem (Farquhar, 2012), thus I had to justify every decision in using certain strategies and methods in this research. Transferability is related to the similarity of this research with other researches (Eriksson & Kovalainen, 2008). This issue was more challenging to fulfill since I had to find an existing research that attempted to solve a similar research problem. Even if

only some parts of the research were similar, the reader would still be able to make comparisons between the studies (Farquhar, 2012).

In terms of dependability, Eriksson and Kovalainen (2008) state that the information must be presented in a logical, traceable, and documented manner. For this reason, I had properly documented the coding procedures of the raw data. Moreover, I had kept the interview recordings and transcriptions, saved every article and video material in order to allow for the data to be traced to the original. Another way to ensure dependability was by doing all of the necessary precautions to avoid ethical problems (see section 3.4.1), as dependability was also connected to the implementation of data gathering and analysis.

Finally, confirmability is concerned with the degree of my own values and theoretical inclinations when interpreting the data (Farquhar, 2012). Even though interviews could yield rich primary data, there is still a possibility that the data could be biased due to the good relationship between the researcher and the participant and/or because of the researcher's theoretical inclination (Marschan-Piekkari & Welch, 2004). To overcome this, data triangulation by using different sources of data is necessary so as to increase the reliability and validity of the research (Eriksson & Kovalainen, 2008). Therefore, I conducted data triangulation by using secondary data along with the interview so as to confirm my interpretation on the interview data (Devine, 2003). However, it was important to remember that the main objective of data triangulation was not to ensure the accuracy of the information, but to have deeper understanding about the issue.

4. FINDINGS

4.1 The Enterprising Journey In Safeguarding the Legitimacy and Financial Viability of a Pioneering Sustainable Enterprise

4.1.1. The Beginning of the Journey: Visionizing

Tri Mumpuni, familiarly known as ‘Puni’, was born on August 6, 1964 in Semarang, Central Java, Indonesia (Edward, 2011). She was raised in a big family of 8 children. Despite the many children to take care of, her parents continued to provide for other people in need in their home. (Tupperware She CAN, 2010b; Ashoka, 2014). Her home was the center for community activities where people could get healthcare and learn to read (Ashoka, 2006). Her parents had embedded in her heart the importance of sharing and giving. (Tupperware She CAN, 2010b; Ashoka, 2014). “...*The way my mom and dad showed us what life is about was so much interesting. I inherited what they thought about life. My father was always telling us, life is about sharing. Sharing was very important. And my mom was always telling me, life is about giving. To give.*” (Ashoka, 2014).

Puni’s encounter with the poor began at a young age when she followed her mother to take care of the sick in villages and she continued working with the poor throughout her teenage years (Ashoka, 2006). She aspired to become a doctor to help the poor in villages, however she did not make the university selection process (Ashoka, 2006; Ashoka, 2014; Edward, 2011). Instead, she was accepted into Bogor Agricultural University to study Social Economy (Schwab Foundation for Social Entrepreneurship, n.d.; Edward, 2011) after winning a scientific paper competition in 1982 (Ashoka, 2006; Ashoka, 2014). Despite her not achieving her dream of becoming a doctor, she was not deterred from helping the poor since she could then help the poor by facilitating rural development. “*I could still be in the village. Not by becoming a doctor but by giving them energy. By working with them to set up, to prepare the community, to understand the technology, especially renewable energy for their rural electrification.*” (Ashoka, 2014).

In the final year of the bachelor's studies, Puni worked with the United States Agency for International Development (USAID) in assisting poor fish farmers in North Sumatra to improve their ability to generate income (Ashoka, 2006). After completing the bachelor's studies she joined the United Nations Development Program (UNDP), where she worked on low cost housing project for the poor in city areas, particularly in the Capital City of Jakarta (Ashoka, 2006; Erdianto, 2014). Her responsibility was to raise funds for the project, which included the reparation of dwellings located in city slums and empowerment of the poor. She did not, however, see any indication of improvement in the lives of the poor after years of working in the project. In her opinion, the project was impeded by the money driven development in Jakarta because "*whoever has money is the strongest actor that could change the facial structure of cities in Indonesia*". (Erdianto, 2014). The pro-rich development took its toll on Puni's confidence in the low cost housing project when the project location was taken over by an investor who wanted to use the site to build a new shopping mall (Erdianto, 2014; Tupperware She CAN, 2010b).

4.1.2 From Visionizing to Building a Mission

Puni's husband, Iskandar Budisaroso Kuntoadji, noticed her disappointment in the UNDP project and encouraged her to join the microhydro movement instead (Ashoka, 2006). As an engineer, Iskandar had been providing technical expertise in microhydro for *Yayasan Mandiri* (Mandiri Foundation), an NGO he founded and initiated with the students of *Institut Teknologi Bandung* (ITB or Bandung Technology Institute). The mission of Mandiri Foundation, which was established in 1979, was to solve problems in rural areas with the use of appropriate technology and to initiate community development. (Erdianto, 2014; Ramon Magsay Award Foundation, 2012; Sovirahayu, 2011; T. Mumpuni, personal communication, August 26, 2014). The foundation started with the *Pesantren* Infrastructure Project, in which several *pesantren* (Islamic boarding school) were provided with electricity through microhydro power and clean water supply with the use of gravitation and deep well. Afterwards in 1984-1994, the foundation collaborated with the Swiss Development Cooperation (SDC) to improve the capability of small and traditional workshops in Bandung Greater Area, West Java,

through the implementation of Small Metal Development Project. Furthermore, the foundation also took part in the microhydro dissemination project, which was supported by the German Technical Assistance (GTZ) and Swiss Contact Stale (SKAT) in 1990-1994. (Lynch, 2011).

Puni went with Iskandar to remote villages in Java and Borneo where the microhydro projects took place (Erdianto, 2014; Bashri, 2009). She was amazed at the abundance of resources in the villages, but was saddened by the poverty of the villagers due to inadequate infrastructures. The most prevalent problem was the unavailability of electricity, which restricted daily activities after sunset. (Erdianto, 2014). This problem was not only affecting a handful of villages in Java and Borneo, but it was, and still is, a national problem. More than a third of the Indonesian population (around 105 million people) had no access to electricity (Bashri, 2009; Ashden, 2012a). Indonesia is an archipelago country with more than 18,000 islands and each island has distinct topography that affects access to the area. The un-electrified population generally lives in isolated and/or topographically challenging areas, making electrification through the national power grid financially and logistically challenging for the Indonesian government. Therefore, alternatives to the national power grid connection are needed. (Ashden, 2012a).

The Indonesian government had developed numerous hydropower electricity projects as an alternative to the national power grid, however most of the projects failed. Ashoka (2006) found that out of 56 government hydropower projects, 45 completely failed while 11 were only a partial success. High social cost was one of the main reasons for the failure, especially for mega hydropower plants. The constructions of mega hydropower plants had resulted in not only massive environmental damage, but also raised human rights violations due to corrupted resettlement programs for the civilians in the surrounding site. In reaction to this condition, Puni stated:

“... Indonesia is blessed by God with abundant water resources in which the water flow could be regulated with the manipulation of elevation, making electricity generation possible. (...) It is impossible to solely rely on a single

grid by PLN³. We are destined to live in a country with many remote islands. There are people that live so far away from us, but they are our comrades in this Republic that also has the right to enjoy electricity”. (Tupperware She CAN, 2010a).

Puni decided to quit her job at UNDP to join the microhydro movement after presenting Iskandar’s microhydro project proposal to a donor organization. She was quickly interested in the project because the targeted receivers of the project were poor villages, which had the potential to be further developed (Tupperware She CAN, 2010b). *“In the early 90s, I saw how my husband designed and implemented the MHP project. Then I thought that he should not implement it on his own. I had to be ‘all out’ and took part in the project so that it could be enjoyed not only by one or two villages, but also – as our dream – by a thousand villages”* (Green TV IPB, 2014).

Puni’s belief in the microhydro mission was further strengthened when she went with Iskandar to attend a conference in Switzerland. She saw hydro power plants in the deep valleys that produced cheap electricity to the surrounding house. She found that the topography of the valley and the river was similar to the valleys and the river in some parts of Indonesia. She inquired the local residents and technicians about the technology and found that the technology was not only simple, but also inexpensive to build. (Azim, n.d.). Since the microhydro technology and the nature condition (e.g. abundance of water in rivers, topology, high rainfall) were readily available, and coupled with the villagers’ pressing needs for electricity, such microhydro scheme could be replicated in Indonesia (Ashoka, 2006; Ashden, 2012a; Green Tv IPB, 2014).

“Why microhydro? Small scale, scattered, the potential is in many places. We have abundant resources. It is important to empower the local community, especially the poor [...] and I am sure that with the proper social preparation the community will benefit from this microhydro.” (Eiji Press, 2012a).

³ *Perusahaan Listrik Negara* (PLN) is the state-owned utility company that supplied electricity in Indonesia.

4.1.3 Formalizing The Vision: People Centered Business and Economic Initiative

Puni joined forces with Iskandar in a way that Iskandar provided technical expertise in MHP technology, which had been refined during his mission in Mandiri Foundation, whilst Puni provided social development expertise (Ramon Magsay Award Foundation, 2012; Tupperware She CAN, 2010b; Green Tv IPB, 2014; Bashri, 2009). She was also responsible in seeking financial assistance from public and private donors, which were mostly foreign institutions (Tupperware She CAN, 2010b). Since public and private institutions were not interested in investing in individuals, Puni and Iskandar established a non-profit organization known as *Institut Bisnis dan Ekonomi Kerakyatan* (IBEKA or People Centered Business and Economic Initiative) (Azim, n.d.; Global Peace Women, n.d.) on August 17, 1992 (T. Mumpuni, personal communication, August 26, 2014; Bashri, 2009). Puni's entrepreneurial capabilities ensured that the mission of IBEKA could be fulfilled and sustained:

“I thought of participating in my husband's work in building electric connection in villages. I never thought that it required much more effort [compared to previous projects]. He was the one that made the concept and the design, but I stubbornly insisted that it had to be executed. [He asked] Where will we get the money? I said, do not think about it. If we had good intention, the money would come on its own” (Erdianto, 2014).

Puni aspired to make a difference through *“sharing the world the way it is meant to be shared”* (Ramon Magsay Award Foundation, 2012), as she saw global poverty as the result of local people's disconnection from local resources (Ashoka, 2014). This view was reflected in IBEKA's vision, which was to reconnect the local people with the local resources with the use of appropriate technology, thus enabling the people to own the resources and enhancing social and economic development (Ramon Magsay Award Foundation, 2012; Sovirahayu, 2011). This vision distinguished IBEKA's microhydro projects with those of the government's. For IBEKA, *“construction on its own was not enough. We needed to teach the local people to build their own. Our principal was to bring the technology closer to the people. In this way,*

the technology would bring benefit” (Tupperware She CAN, 2010a), while government projects normally only build the infrastructures needed.

Technology played a big role in realizing IBEKA’s vision. To bring technology closer to the community, the technology had to be user friendly and compatible with the users’ capacity. With the community’s current technological capacity, capacity building and empowerment were needed to execute the microhydro technology. (Lynch, 2011; Untuk NKRI, 2014a). *“[Microhydro] could be considered as high technology, but it was user friendly because we could teach the people on every phase of the microhydro, starting from the planning and design phase up to construction phase”* (Green TV IPB, 2014). Moreover, Puni realized the importance of empowerment instead of mere assistance in transferring the appropriate technology to the local people:

“In order for the people to be adept in technology, they have to be empowered. I genuinely dislike hearing that the villagers have to be aided. No. Aid gives the impression that the receiver is inferior from the provider, while the provider has more power. In contrast, empowerment put the provider and receiver at equal position. We have the responsibility to empower our people so that they are technology literate.” (Untuk NKRI, 2014a).

IBEKA was initially established as a non-profit organization with three missions: (1) developing renewable energy schemes for rural communities that lead to self-reliance and economic development; (2) developing and promoting the adoption of renewable energy technology, particularly microhydro; and (3) fostering and assisting the establishment of local entrepreneurial activities to trigger economic activities (Sovirahayu, 2011). Puni at one point realized that the local communities were the actual owners of the resources that could be developed to create economic values. With that being the case, IBEKA started to invest in the provision of the technology and became a social enterprise by doing business with the local community. As a social enterprise, IBEKA made profits, but *“[IBEKA] is a business beyond profit and money by looking for more benefit”*. (T. Mumpuni, personal communication, August 26, 2014; Lynch, 2011). A social business according to Puni was:

“An activity that could overcome social issues while making a profit at the same time. So, we are becoming rich by making other people rich. This concept is halal⁴ and legitimate. This is how it is supposed to be. It is wrong if we become poor in the process of helping people”. (Green TV IPB, 2014).

IBEKA's social business was rooted on four principles, namely community ownership, community as the operator, community maintain, and the use of renewable resources (Positive Economy Forum, 2014). As mentioned earlier, the local people, whom collectively formed a community, were owners of the local resources; therefore, it was only natural that the community owned any project that utilize the resources and to have their culture and way of life respected (Eiji Press, 2012c; Lynch, 2011). Furthermore, it was of great importance that the community operated and maintained the appropriate technology to ensure the sustainability of the missions (Lynch, 2011). IBEKA also used renewable energy as the entry point to community's empowerment and economic development (01, 3 Nov 2014). *“We want to provide electricity from renewable energy that is located within their surroundings. To make it sustainable is our first priority. It is by giving trainings, by empowering the local community, the community could understand the technology”.* (GMA News, 2011). Puni maintained that *“[microhydro] technology can be powerful. If we make microhydro properly, we generate electricity. If we generate electricity, we can generate other economic activities”* (Schonhardt, 2011).

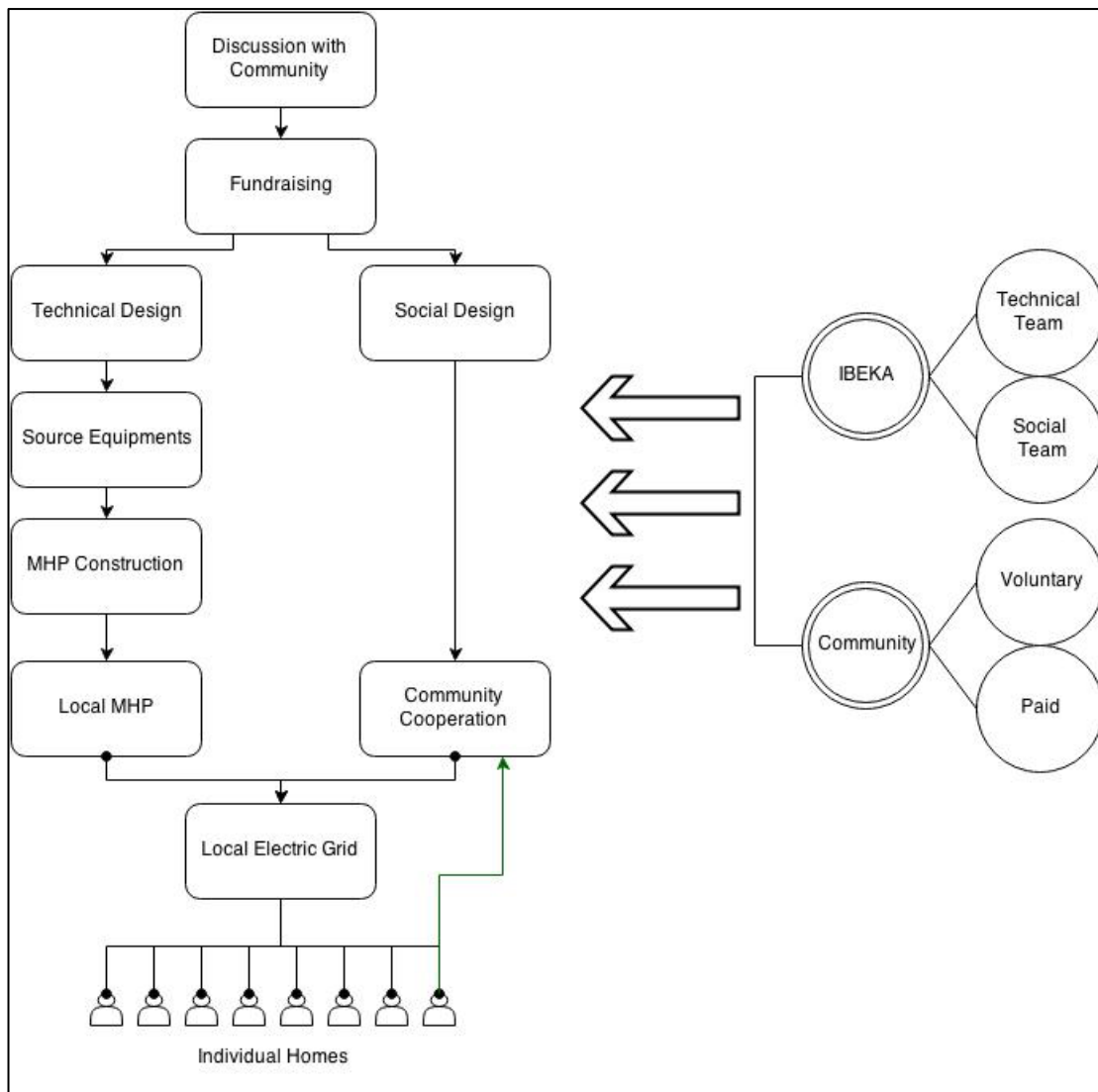
4.1.4 The Creation of a Socio-Ecological Solution

IBEKA's vision, missions, and principles were first implemented in Cinta Mekar village, Curugagung, West Java, in 1991. The project started before IBEKA was established, as it was the starting point for Puni and Iskandar to establish the non-profit organization. Puni was involved in the project since the very beginning and her innovative social scheme was the reason for the projects' success. The social scheme was different from those of the existing MHP project that the scheme was used in

⁴ Halal in Arabic meant "permissible" and it applied not only food and drinks, but also way of life.

IBEKA's subsequent projects, as well as replicated in other countries in Asia and Africa.

Figure 5: The Off-Grid Microhydro Scheme



Based on: Ashden, 2012a.

The Cinta Mekar village comprised of 4 sub-villages where 102 out of 646 households were without electricity. Most of the villagers were poor rice farmers (Tumiwa et. al., n.d.). The sustainability of the program could only be ensured if the villagers had the capability to maintain the MHP themselves; therefore trainings were given to the villagers and a Community Cooperative was established to manage and

operate the MHP (Azim, n.d.). Furthermore, community ownership was the key to the sustainability of the MHP project since it would ensure long-term involvement of the community; therefore the community was involved since the beginning of the project. For this reason, the process of the scheme began with discussions with the community as they had to decide on the design, operation, and funding of the MHP. (Ashden, 2012a; Ashoka, 2006; Azim, n.d.; Pujiarti, 2014; Schwab Foundation for Social Entrepreneurship, n.d.). *“This MHP uses a model with a unique approach. IBEKA always involves the community from the very beginning”* (Pujiarti, 2014). The MHP in Cinta Mekar used the Off-Grid Community-Based Electricity scheme since the MHP was not connected to the national electricity grid (see Figure 5).

The community was also given the responsibility to set the electricity tariff through a consensus (Schwab Foundation for Social Entrepreneurship, n.d.). The decision was based on the costs of the MHP’s daily operation and maintenance, as well as the required amount of funds needed to support the Community Development Plan (Ashden, 2012a; Positive Economy Forum, 2014). Through the Community Development Plan, the community utilized the revenue from the electricity sales to fund social and/or economic activities in the village, such as scholarships, free healthcare, seed money, etc. The tariff was normally set at USD 2 – USD 10 per month or USD 0.04/ Watt and paid directly to the Community Cooperative (Ashden, 2012a).

The cost of building an off-grid MHP was USD 4,000 – 8,000 per Kilowatt (at USD 1 = IDR 9,000 per March 2012) (Ashden, 2012a). Following the securing of funds from donor organizations and/or partners, IBEKA employed its technical and social team, which were responsible in informing, educating, and training the community as the community would be in charge of managing and operating the MHP (Bashri, 2009; UNESCAP, n.d.) The technical team, along with the villagers (paid and voluntary), constructed the MHP for around a year (Erdianto, 2014). Thereafter, the team trained the MHP operator on the operation and maintenance of the erected MHP. The key of success of IBEKA’s MHP project lied heavily on its social team. The social team dealt directly with the villagers, but the team acted as a guide/mentor instead of an instructor towards the community. The team engaged the community for 6 – 9 months in which it

acquired preliminary data about the community and the villagers, formed the Community Cooperative, and built the capacity of the villagers through various trainings. (Erdianto, 2014).

The social team trained the community not only on how to look after the MHP, but also on improving organizational skills. The villagers would know about budget planning process, prioritizing community needs, and execution of community development plan. (Erdianto, 2014). Thereafter, a handful of people from the community were appointed to implement and monitor the MHP program as members of the Community Cooperative. The Cooperative was structured such that a leader, a treasurer, a secretary, and an operator were appointed. (Bashri, 2009; Eiji Press, 2012b; Lynch, 2011). Training on organizational structures and management, as well as billing systems were given to members of the Cooperative since they would be responsible in managing the funds from customers' payments and the Village Development Fund in addition to managing and operating the MHP (Ashden, 2012a; Bashri, 2009; Erdianto, 2014).

Establishment of a Community Cooperative (a business entity owned by the community) was the key requirement for a village to participate in the program. If the village did not want to establish a cooperative, the project would be discontinued. A Cooperative was essential since the completed MHP would then be operated, maintained and owned by the village. Moreover, with the presence of a Cooperative, IBEKA would be working with a formal institution that would be the legitimate recipient of completed MHP. (Lynch, 2011).

The MHP in Cinta Mekar had the capacity to electrify 121 houses. It was 13 Kilowatt (Kwh) with the initial capital of IDR 44 million (\pm USD 5,500). (Balai KDSA Kalimantan Barat, 2008). IBEKA contributed half of the investment from bootstrapping (T. Mumpuni, personal communication, August 26, 2014), while the other half was acquired from a bank loan that a group of farmers took collectively (Balai KDSA Kalimantan Barat, 2008). One of the farmers, a man named Barnas, became the person responsible in selling the electricity to individual homes. At this time, the revenue from

the electricity sales was used to pay back the bank loan. (Balai KDSA Kalimantan Barat, 2008).

4.1.6 Surpassing the Barricade in Establishing Legitimacy: Entrance of State Actors

The MHP project went well in Cinta Mekar village until politics came into play. In order to secure votes in the upcoming district head election, the head of district at the time forced the state-owned electricity company, *Perusahaan Listrik Negara* (PLN) to enter the Cinta Mekar village. As consequence to the heavy government subsidy to PLN, the price of the MHP’s electricity became relatively much more expensive and most of the customers switched to PLN (see Table 1). Barnas were extremely worried because the bank loan had not been fully repaid. Sadly, Barnas passed away of a heart attack due to stress. (Ashoka, 2006; Balai KDSA Kalimantan Barat, 2008). Puni and her colleague made some contributions to settle the bank debts, while the Cooperative had to lower its tariff to match PLN so as to retain the customers. (Balai KDSA Kalimantan Barat, 2008).

Table 1: Electricity Tariff of Community-Based MHP and PLN

	Consensus-based MHP	Government-Subsidized
Tariff (USD/ watt)	0.86	0.24
Basis of Pricing	Community Consensus	Government Subsidy

Source: Eiji Press, 2012b

Cinta Mekar village was not the only victim of PLN’s entrance to the village. There had already been local initiatives in building MHP in other areas of Indonesia when they were still unreachable by PLN. Just as in Cinta Mekar, the MHPs were quickly abandoned when PLN entered with its heavily subsidized price (Ashoka, 2006). Since PLN was not obligated to buy the available electricity produced by community-initiated power plants, the two institutions had to compete (Ashden, 2012a).

There was, nevertheless, some off-grid MHPs under IBEKA’s project that was not abandoned after the entrance of PLN. People remained loyal because the electricity

supply from the MHP was more reliable than PLN. PLN, which relied on diesel to produce electricity, oftentimes had to shut down their operation due to the shortage of diesel fuel and bad weather. The MHP, however, shut down only during maintenance on Friday mornings for two hours and would continue to operate during bad weather. Moreover, any problems with PLN's service would require the customer to travel to the nearest utility office that was normally located hours away from the village, whereas problems with the local MHP would only require the customers to contact the Community Cooperative in the village. The reliable supply of electricity and convenience of the local MHP outweighed PLN's cheap but unreliable and inconvenient electricity. (Eiji Press, 2012b; Lynch, 2011).

In spite of some villages' success in withstanding PLN's low tariff, a new policy was needed to ensure cooperation, instead of competition, between the community MHP and PLN. The new policy should support business transactions between the community MHP and PLN in order to ensure the sustainability of MHPs. (UNESCAP, n.d.). The need for a pro-community policy combined with the loss of Barnas drove Puni to lobby the government to pass a national law that oblige the PLN to buy electricity from mini and micro hydropower plants in Indonesia (Ashden, 2012a; Ashden, 2012b; UNESCAP, n.d.). It took eight years until there was a law, *Keputusan Menteri Energi dan Sumber Daya Mineral 1122 K/30/MEM/2002 Tentang Skema Pembangkit Listrik Kecil Teknologi Untuk Rakyat Dengan Sumber Energi Terbarukan*⁵, that enabled small renewable energy power plants (1 megawatt) operated by small businesses to be operated with PLN's system.

4.1.7 Cinta Mekar On-Grid MHP Project (2005)

Twenty-eight off-grid MHP had been built by 2004. The enactment of the new regulation allowed private and community-based electricity power plants to collaborate with PLN. The collaboration was mutually beneficial since PLN did not have to build the power plant, while the private or community business could sell the electricity to PLN and also benefit from PLN's electrical connections. Therefore, Puni and the

⁵ Decision of the Minister of Energy and Mineral Resources 1122 K/30/MEM/2002 on the Small Power Plant Technology Scheme for the People with Renewable Energy.

IBEKA team designed the on-grid MHP scheme that were implemented in Cinta Mekar village for the first time. There was no major change in IBEKA's role in the project as IBEKA continued to assist the community in the technical and social matters surrounding the establishment of the MHP (Ashoka, 2006). There were three major differences, namely the MHP connection, business model, and the initial cost of the project (see Table 2).

Table 2: Differences in Off-Grid and On-Grid MHP Scheme

	Off-Grid	On-Grid
Connection	Closed	National grid
Electricity sold to	The community	PLN
Excess electricity	Remain in the village	Sold to PLN
Consumers of Electricity	The community	The community and other areas
Business Model	Cooperative	Public-Private Partnership
Shares	100% Community	Community & Local Business
Structure of Cooperative	Cooperative	Social Enterprise
Ownership	Community	Community
Cost of Construction & Connection	USD 4,000-8,000/ Kwh	USD 1,500/ Kwh
Source of Funding	Grant, Loan, Bootstrapping	Grant, Loan, Private Investment

IBEKA designed the on-grid scheme to conform to the Public-Private Partnership (PPP) scheme, in which the institutions involved were the local community, PLN, a local business, donor organizations (or other fund providers), and IBEKA (Azim, n.d.; Ramon Magsay Award Foundation, 2012). The parties involved in the first

on-grid project were Cinta Mekar community, IBEKA, PLN, PT. Hidropiranti (a local business), and UNESCAP. Similar to the off-grid scheme, the Indonesian government was not involved in the project implementation nor the financing; however, it was necessary to be endorsed by the government just as the Ministry of Small Enterprises and Cooperatives, the Ministry of Energy and Mineral Resources, and the Government of the Netherlands endorsed the Cinta Mekar on-grid project. (Erdianto, 2014).

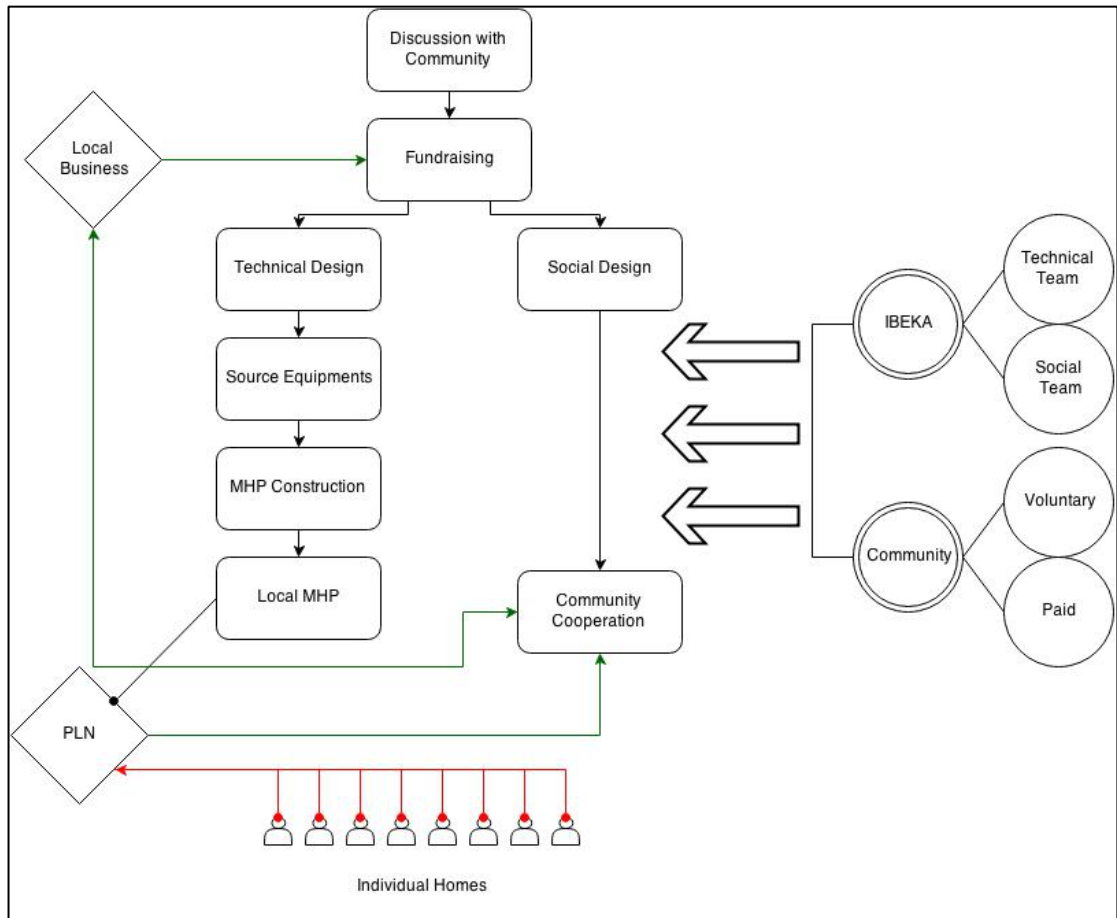
Table 3: Capital and Funding Breakdown of Cinta Mekar On-Grid Project

	Investment (USD)
UNESCAP	75,000
IBEKA	75,000
PT. Hidropiranti	75,000
Total	225,000

Source: Eiji Press, 2012c; Erdianto, 2014; Lynch, 2011; Tumiwa, et. al., n.d..

Under the PPP scheme, the community worked together with a local business, which Puni had assessed as an entity that did not merely seek profits but also benefits for the local community (Positive Economy Forum, 2014). Since the local business invested funds to cover a portion of the project, the community had to jointly own the shares of the MHP (Erdianto, 2014) (see table 3). Consequently, the net revenue of the electricity sales had to be equally divided between the Community Cooperative and the local business (Ashoka, 2006; Azim, n.d.). This new partnership led to the reformation of the Community Cooperative into a Social Enterprise, although it continued to be referred as a cooperative. The Cooperative, which was named Mekar Sari Cooperative (Tumiwa et al., n.d.), then had an additional responsibility in distributing the shared profit to the local business, paying loans, operating and maintaining the MHP, and managing the community development funds. (Ashden, 2012a).

Figure 6: The On-Grid Microhydro Scheme



Based on: Ashden, 2012a.

The MHP in Cinta Mekar that was built in 1991 was abandoned since people had started to acquire electricity from PLN; therefore, a new MHP was constructed for the on-grid project (Erdianto, 2014; Tumiwa et al., n.d.). The cost of constructing on-grid MHPs was relatively cheaper than the off-grid because the distribution cost was covered by PLN. The cost to build Cinta Mekar's on-grid MHP with 120 Kilowatt capacity was USD 180,000. The cost was USD 1,500/ Kilowatt compared to the off-grid MHPs that normally costed USD 4,000 – USD 8,000/ Kilowatt. (Ashden, 2012a). The capital needed for the program was USD 225,000. By using the PPP scheme, the provision of the funds was equally divided between three parties: The United Nations Economic and Social Commissions for Asia and the Pacific (UNESCAP), IBEKA, and PT. Hidropiranti. UNESCAP provided USD 75,000 grant under the UNESCAP's Pro-Poor Public-Private (5P) program. IBEKA made USD 75,000 investment because the

MHP was going to be used as a training facility. The money was also used for microhydro dissemination and social preparation by the social team. Finally, PT. Hidropiranti, a local business, made an investment of USD 75,000 where it acquired equal shares with the Community Cooperative. (Eiji Press, 2012c; Erdianto, 2014; Lynch, 2011; Tumiwa et al., n.d.).

The existing and new community MHP was connected to the national grid under the on-grid scheme (Ashden, 2012a). Instead of selling the MHP directly to the villagers, the electricity was first sold to PLN. Thereafter, PLN sold the electricity to the villagers and its other customers (see Figure 6). In the case of Cinta Mekar, PLN bought the electricity from the Community Cooperative at the rate of USD 0.007 – 0.13/ Kilowatt hour. Instead of paying to the Community Cooperative as in the Off Grid scheme, individual homes paid directly to the PLN at the rate of USD 0.06/ Kilowatt hour. (Ashden, 2012a).

The community had the first access to the electricity as the owner and shareholder of the MHP, while excess electricity was sold to PLN that would distribute the electricity to other areas (Azim, n.d.). The produced electricity was then used not only to satisfy the community's need for electricity but also other areas served by PLN. Therefore, on-grid MHPs could contribute to supplying electricity and thus improving the supply of electricity nationwide. The on-grid MHPs were built to have larger capacity so that excess electricity could be sold to PLN, thus maximizing financial return to Community Cooperative and the local business. However, the revenue was just enough to cover the costs of maintaining and operating the MHP, hence the financial return was not too large, making the investment attractive only for socially motivated investors and businesses. (Ashden, 2012a). In the case of Cinta Mekar, the on-grid MHP generated monthly revenue of IDR 25 million and net profit of IDR 10 – 12 million (\pm USD 1,100 – 1,300), which were divided between the Cooperative and PT. Hidropiranti (Erdianto, 2014). The IDR 5 – 6 million (\pm USD 550 – 660) return for PT. Hidropiranti could be considered as small, but the benefits for the community were relatively large since the Mekar Sari Cooperative had since been able to fulfill the community development priorities by providing electric connection to the unconnected

households, providing scholarships for students from poor families, building health clinics, providing seed capitals for businesses, building infrastructures, as well as establishing community radio station and village telephone center. (Ashoka, 2006; Eiji Press, 2012c; Erdianto, 2014; Lynch, 2011; Positive Economy Forum, 2014).

The Cinta Mekar on-grid project was considered as a great success by many parties since it was the first community-initiated MHP that was both connected to the national grid and built under the PPP scheme. Successful PPP scheme at the time were still rare, but, in this case, the favorable result was due to available funding and equal share ownership. The community, which did not have the necessary capital to initiate the program, had the support of donors and private investors to fund the program. Moreover, the community and the private investor had equal ownership in shares; therefore, both parties had equal power in the decision making process and in the portion of the profit. Through the program, a self-managing community was developed as the community could use the income from the electricity sale to not only build infrastructures in the village, but to also empower themselves through the utilization of the village development funds. The program was different from existing government programs because the community was not treated merely as the beneficiary, since the program emphasized on community involvement in the decision making process at all phases of the program (planning, development, and implementation). (Tumiwa et al., n.d.). *“The beauty of [the Off Grid and On Grid] approaches is that the entire structure is consensus based, not imposed from the outside”* (Ramon Magsay Award Foundation, 2012).

4.1.8 The Triple Bottom Line Impact Generated by IBEKA

In the span of 25 years, IBEKA had successfully provided electricity to more than 50,000 people and invigorated economic development in remote parts of Indonesia. By 2012, IBEKA had completed 61 microhydro projects with the total capacity of 2,260 Kilowatt. Six of the early power plants were inactive because three of the plants were in process of becoming on-grid while the remaining three were out of water supply. Fifty-one of the hydropower plants were micro and mini hydropower plants that served 10,400 households (around 47,000 people). Four of the MHPs were on grid with the

capacity of 400 Kilowatt and were serving 1,500 households (7,000 people). The remaining 10 hydropower plants were picohydro power plants, which had smaller capacity compared to MHPs. (Ashden, 2012a). In 2012 – 2014, IBEKA undertook more MHP projects and had constructed 82 MHPs by 2014 (T. Mumpuni, personal communication, August 26, 2014).

Giving people access to electricity seemed to be the principal value proposition in IBEKA's business model. It was, however, not the case. Electricity was actually the tool that IBEKA used to create the real value, which was for everyone in the community to have equal opportunity in participating in the economy and improving the community's wellbeing through appropriate technologies (Erdianto, 2014; Tupperware She CAN, 2010a; Tumiwa et al., n.d.; Untuk NKRI, 2014a). As listed in Table 4, access to electricity enhanced economic activities within the community; therefore IBEKA's MHP project included strategies in forms of the four principles (i.e. community ownership, community as the operator, community maintain, and the use of renewable resources) to ensure the sustainability of the economic activities so as to secure the already established income and wellbeing (Erdianto, 2014):

“In actuality, the dream of the IBEKA team is to bring fair village development to realization. What does this mean? The village has an asset. In this case, we build power plants where the electricity could be sold to PLN so the village will have an income. This is only one of the many examples that can be done in the villages. By having an income, the village is able to provide education even to its poorest members, which results in intelligent human resources that are not easily coaxed to hand over their means of production: land.” (Untuk NKRI, 2014b).

“In 24 years, my team and I have been working to actualize the independent village concept. I remember that in the beginning of our country's independence, we had charismatic leaders with good moral values that they wanted Indonesia and its villages to be self-supporting. A village is merely a geographical location, but in essence, a village is developed because all infrastructures are available. The best schools and hospitals are there. And, all

economic transactions are executed there. Therefore, the facilities in cities and villages are the same. This is possible if there is a collective intention and effort.” (Untuk NKRI, 2014b).

From the value proposition, it was evident that, unlike conventional businesses that were mostly concerned about capital and profit maximization, IBEKA was more occupied in creating public prosperity (Erdianto, 2014). Nevertheless, IBEKA had to maintain financial viability without relying on the funds from its partners. IBEKA was not allowed to get any share from the MHP’s electricity revenue because the entire revenue was meant for the community and its development priorities, or to be shared between the community and the private business. (Lynch, 2011). IBEKA covered its overhead through other activities, namely consultancy, training, and guesthouse in Cinta Mekar village. IBEKA provided consultancy and training services for individuals and institutions that wish to know more about the microhydro technology and development. IBEKA collaborated with the Indonesian Foreign Ministry under South-South Cooperation, where it provided trainings to Asia Pacific and African countries. Other than microhydro related trainings, IBEKA also provided trainings on establishing good social enterprises. (T. Mumpuni, personal communication, August 26, 2014).

Table 4: The Impact of IBEKA's MHP Projects

Context		Beneficiaries	
Energy	1.	Local, affordable, and user-friendly technology	Indonesia
	2.	Increased energy supply	
	3.	A benchmark for similar projects	
	4.	Renewable energy best practice and promotion	
	5.	Promotion of small scale project	
	6.	Promotion of community-based project	
Social	1.	Enhanced democratic participation through partaking in consensus	Indonesia
	2.	54,000 people had access to electricity, for this reason: <ul style="list-style-type: none"> - Children became more productive as they could study in the evening and at night - Homes becoming more pleasant as electric lighting replaced kerosene lamps - Increased safety as the areas within the community became brighter at night - Lessened isolation with the access to telecommunications (e.g. television, radio, telephone) 	Village communities
	3.	Community has an income to fund community development activities, such as: <ul style="list-style-type: none"> - Healthcare benefits for every member of the community - Building and reparation of infrastructures - Access to electricity and clean water - Scholarships for underprivileged students - Provision of capital through microloans that enable the community to expand or start new commercial and/or agricultural businesses. 	
	4.	Sense of community with the shared decision making	
	5.	Community empowerment as a result of capacity building	
	6.	Improved management and organizational skills	
		Cooperative Staff	

Table 4: The Impact of IBEKA's MHP Projects (Contd.)

Context		Beneficiaries	
Ecological	1.	Pollution from electricity production is eliminated by replacing coal and oil with hydro power (renewable energy)	The World
	2.	Reduced Green House Gas Emission (GHG) by approximately 1,700 tonnes/ year CO ₂ e by replacing coal and oil with hydro power in electricity production.	
	3.	Reduced GHG by approximately 7,400 tonnes/ year CO ₂ e by replacing kerosene lamp with electrical lights.	
	4.	Declining deforestation and increasing tree planting along the river stream	
	5.	Environmentally friendly microhydro system due to non-use of dam	Indonesia
	6.	Declining local air pollution	Village Community
Economic	1.	Reduced cost for lighting, in which burning kerosene for lighting costs USD 5 – USD 20/ month while electric light costs less than 1 USD/ month	Village Community
	2.	Increased community earnings with more employment opportunities in forms of: <ul style="list-style-type: none"> - MHP operators and fee collectors - Professions requiring electrical tools (e.g. tailors, carpenters) - Local workshops for MHP equipment - Labor for the construction of MHP 	
	3.	Increased work productivity with the possibility to use electrical equipment (e.g. electric saw for carpenters)	
	4.	Increased crops productivity due to better water management	

Sources: Ashden, 2012a; Ashden, n.d.; Azim, n.d.; Bashri, 2009; Deutsche Welle, 2013; EDSM, 2009; Eiji Press, 2012c; Erdianto, 2014; Global Peace Women, n.d.; Indonesia Berprestasi, 2011; Lynch, 2011; Schwab Foundation for Social Entrepreneurship, n.d.; Tumiwa et al., n.d; Tupperware She CAN, 2010a; UNESCAP, n.d.

4.2 Tri Mumpuni's Role in the Legitimacy of IBEKA

Puni had been involved in the hydropower movement as the Executive Director of IBEKA for almost 25 years (see Figure 7). She was seen as the key person responsible for the success of IBEKA. Puni was honored with multiple prestigious awards for her role in IBEKA, namely WWF International Climate Hero in 2005, Tempo Women of the year in 2006 (MIT Legatum Center, n.d.), Ramon Magsay Award in 2011 (Indonesia Berprestasi, 2011), and Indonesian Women of Change in the category of Climate Change & Environment in 2013 (Pujiarti, 2013). Furthermore, she was enlisted in two prominent international fellowships: the Ashoka Fellow in 2006 and the Eisenhower Fellow in 2009 (MIT Legatum Center, n.d.). The awards and fellowship not only brought massive recognition to Puni's mission but also inspired others to do the same:

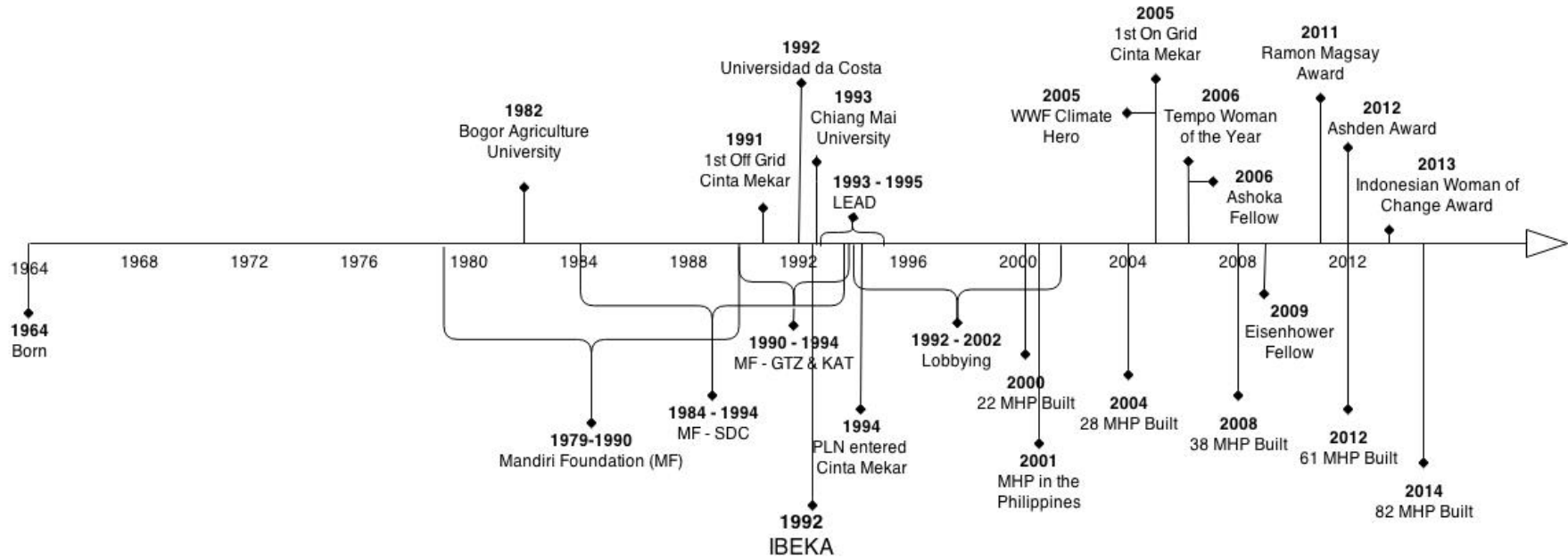
"I thought of using the awards as a mean to show other people and my staff [of IBEKA's vision and mission]. At first I was [uncomfortable] because why should I be given awards, but as time went by, I realized that the awards could inspire others to imitate what I had done." (Green TV IPB 2014).

4.2.1 A Woman Who Aspired and Inspired

Awards were not the only way for Puni to gain people's support. She never shied away from the opportunity to become a guest speaker in television programs and seminars to tell people not only about IBEKA's MHP project, but also about her values in life: sharing, being beneficial for others, and sincerity. These values helped her to gain people's recognition and support:

"Never stop sharing knowledge. There are three important aspects in life: sharing fortunes makes you richer, sharing smiles makes you happier, sharing knowledge makes you more intelligent. So, continue sharing and you will have followers. Then another keyword is money. It is wrong to say that there is no money [for the mission]. I am very sure that high spirit will create result and bring in money. So, just work hard" (Aquan, 2012).

Figure 7: Timeline of Tri Mumpuni's Journey as an Entrepreneur



Source: Ashden, 2012a; Ashoka, 2006; Ashoka, 2014; Bashri, 2009; Connell, 2011; Edward, 2011; Lynch, 2011; Schonhardt, 2011; T. Mumpuni, personal communication, August 26, 2014.

“I just want to share to the audience that whatever our circumstance or condition is, if we have good intention, hopefully our lives would always be beneficial for others. Believe in it, so, Insya Allah, our lives will have meaning for the people around us. For me, the most important thing that cannot be measured with money is to see villages becoming bright and to see the changes in the faces of the people who were once desperate. I would never forget this Dayak man who lived in darkness in the forest. His wish was to be able to have dinner with his family in the evening. When we gave electricity in 1995 to a remote area in West Sumatra, he screamed, ‘HAH, Allahu Akbar! We finally experience freedom’. I often laugh when I think back at this moment”. (Tupperware She CAN, 2010c).

“When we are doing something, we need to do it with sincerity without thinking about the upcoming reward. If we do it sincerely, wholeheartedly, and could bring benefit to others, rest assured that God would give us amazing rewards. This is the key. Sincerity must be the foundation of our works”. (Green Tv IPB, 2014).

People were often inspired by Puni’s vision and life values that they were moved to support IBEKA financially. A woman saw Puni on television and decided to visit her from afar to give Puni a quarter of a kilogram of gold to support the mission. At another time, a group of Indonesian maids in Qatar sent her a sum of money for the mission after they talked with Puni over drinks at the airport. (Aquan, 2012). People were moved by both her vision and determination:

“Every challenges could be counteracted. I had experienced how I did not have any resources but the conviction that the people in West Sumatra had to have electricity. When I went to Europe to fundraise, I encountered no difficulty. When I went to Japan, I met a person who wanted to donate. Everything depended on the strength of our convictions and our intention in building this nation”. (Erdianto, 2014).

4.2.3 Partnership in Realizing the Vision

Puni’s mission through IBEKA was, of course, not possible without the support of her main partner, Iskandar, and several institutions that provide funds for

the projects, such as the Embassy of Japan (Bashri, 2009), Japan International Cooperation Agency (JICA) (Indonesia Berprestasi, 2011), UNESCAP, GTZ (Ashden, 2012a), USAID (Azim, n.d.), and some socially motivated investors (Schonhardt, 2011). As the person responsible for fundraising, Puni acquired funds from both domestic and foreign organizations (Deutsche Welle, 2013). The donor organizations provided grant funds to cover all of the costs related to MHP design and installation, community preparation, and the setting up of the Community Cooperative (Ashden, 2012a).

IBEKA's partners were institutions with compatible values. Prior to the collaboration being official, Puni informed the prospective partners of IBEKA's vision, mission, rules and work mechanisms, as well as the domain for collaboration. Puni was firm that the partners accept IBEKA's rules and ways of implementing the project. Furthermore, all the money that the partners gave to IBEKA was used only to fund the MHP project and not to cover IBEKA's overhead, although some donor institutions set aside a small percentage of the fund to cover some portions of the overhead. (T. Mumpuni, personal communication, August 26, 2014). This arrangement assured the partners that IBEKA was mainly concerned about giving maximum benefit to the community and not for maximizing profit:

“When I met the donors for the first time, I gave a very clear picture about IBEKA's vision and mission, the team, and the exact activities that we wanted to collaborate in. It was crystal clear for them that IBEKA's value was mostly about giving the most benefit to the local community with no hanky-panky business and no give back.” (T. Mumpuni, personal communication, August 26, 2014).

Puni further emphasized the importance of a good track record to acquire the support of the partners, especially because of the numerous cases of unsustainable projects (T. Mumpuni, personal communication, August 26, 2014). A good track record in the past years convinced the partners of the sustainability of IBEKA's MHP projects:

“People needed proof in situations where there were so many unsustainable projects. People were looking for something that was truly sustainable and

we had proof that what we did was sustainable. The evidence spoke on its own, thus, for me, it was very important to have a good track record.” (T. Mumpuni, personal communication, August 26, 2014).

IBEKA’s partners were ready to provide funds for the MHP project because Puni and her team were creating a breakthrough in which the benefits came from the society and for the society. In other words, the local people worked on the readily available local resources and in turn the local resources gave benefits to the local people. It was unlike other projects where outsiders (e.g. district/ central government or private institutions) came to either exploit the local resources without giving any benefits to the local people or to construct infrastructures without involving the local people. (T. Mumpuni, personal communication, August 26, 2014). Furthermore, the model of IBEKA’s MHP project was unique but easily replicable, making foreign institutions interested in collaborating:

“What we were doing was something concrete, beneficial, easy to replicate, and could be done by anyone. Nevertheless, it needed to follow righteous rules. The model that IBEKA had developed was regarded as unique, thus interests and requests emerged from other countries.” (Green Tv IPB, 2014).

4.2.4. Tri Mumpuni’s Social Innovation

The microhydro technology could be considered as an old technology; however, IBEKA’s MHP scheme was viewed as a breakthrough on the account of Puni’s social approach. It started with IBEKA’s first MHP project in the Cinta Mekar village. Puni reached out to the villagers of Cinta Mekar and informed them of the project proposal. However, the local community did not accept her proposal because they doubted the possibility of the program being a success. The villagers were unsure of the responsibility to maintain and operate the MHP, since the government usually did everything through government projects (Azim, n.d.). However, this dismissal did not discourage Puni for she believed that:

When you have and understood that you have to do something good, you have to start from the very small steps because big things start with one step. And failure is very common. When you fall, you wake up and stand up. It is

just repetition, but then you become strong. And you can achieve your goal that you are really dreaming on". (Ashoka, 2014).

For this reason, Puni found it necessary to move to Cinta Mekar village to ensure the success of the program. It took her two years to build a close relationship with the villagers through intense communication. She was able to change the villagers' mindset of the program and obtained their participation. (Azim, n.d.). Puni also approached the key persons in the village and explained to them of the program's vision and missions. Getting the permission and the support of the key persons were crucial to ease the advancement of the project. (Bashri, 2009; Lynch, 2011; T. Mumpuni, personal communication, August 26, 2014).

Puni's social approach was applied into IBEKA's MHP scheme, in which community involvement and ownership were required. Therefore, IBEKA's technical and social team stayed with the community for approximately 18 month (Ashden, 2012a) to train the community to become responsible owners and operators of the MHP after the construction was completed (Schwab Foundation for Social Entrepreneurship, n.d.). Moreover, Puni believed that in general people were more likely to appreciate their own work and would consequently take good care of the MHP (Tupperware She CAN, 2010b):

"This kind of process is only possible if we live-in. Stay with the community. So the concept of live-in becomes a definite requirement in our development program. I do not want to carry out the program that the government is undertaking. They come and build with the national budget. If the facility is broken, then new construction begins. This means continuous project where there is always a project in process, not the development. The right way should be that the community is also trained to take care of the built facilities". (Erdianto, 2014).

4.2.5 A Woman's Fight Against Political Powers

Puni's success in implementing IBEKA's MHP projects was not without obstacles. At times she faced scholars or experts that doubted her competence in managing a highly technical project such as microhydro:

“People tend to compartmentalize knowledge and skills. This is a challenge for me that I need to explain to people. It is true that my educational background is social economic from IPB⁶, nevertheless having good intention is of greater importance. We need to be highly committed and to love our work; thence we could become what people thought as impossible. This is the bittersweet challenge that I am facing now as people keep on questioning my capabilities due to their misguided mental model.” (Green Tv IPB, 2014).

Despite her seemingly incompetent educational background, Puni was able to push the Indonesian government to adhere to her demands. This occurred when the Cinta Mekar Off-Grid project was threatened by the entrance of PLN. Puni lobbied the Ministry of Energy to pass a regulation that obliged PLN to buy electricity from community managed power plants. She even had the courage to contact President Soesilo Bambang Yudhoyono, who was the Minister of Mining and Energy at the time, to explain about the importance of PLN purchasing electricity from the community. It took her 8 years until the desired regulation was passed (Lynch, 2011). The *Keputusan Menteri Energi dan Sumber Daya Mineral 1122K/30/MEM/2002 Tentang Skema Pembangkit Listrik Kecil Teknologi Untuk Rakyat Dengan Sumber Energi Terbarukan*⁷, which she took part in the formulation, enabled community based electrical power plants that use renewable energy to connect the system to PLN's. In 2009, another law known as the *Peraturan Menteri Energi dan Sumber Daya Mineral Nomor: 31 Tahun 2009 Tentang Harga Pembelian Tenaga Listrik Oleh PT PLN (Persero) Dari Pembangkit Tenaga Listrik yang Menggunakan Energi Terbarukan Skala Kecil dan Menengah atau Kelebihan Tenaga Listrik*⁸ obliged PLN to buy energy from every community based electrical power plants that use renewable energy.

“My desire was simple: PLN is willing to buy electricity from the community. So, I knocked on the door of the managing director of PLN, I visited his

⁶ *Institut Pertanian Bogor* (Bogor Agricultural Institute).

⁷ Decision of the Minister of Energy and Mineral Resources 1122K/30/MEM/2002 on the Small Power Plant Technology Scheme for the People with Renewable Energy.

⁸ Regulation of the Minister of Energy and Mineral Resources Number: 31 Year 2009 on the Purchasing Price of Electricity from Renewable Sources by PT PLN from Small and Medium Scale Renewable Energy Power Plants or Excess of Electricity.

office everyday until the people there were fed up with seeing my face. I would never stop coming until they agreed with my idea. I am a woman and I am patient to wait until I get what I want.” (Deutsche Welle, 2013; Erdianto, 2014; Lynch, 2011).

It was evident that Puni was not intimidated by people with political power. She would fearlessly oppose certain bureaucrats who saw projects as a source of money due to the possibility of acquiring givebacks (T. Mumpuni, personal communication, August 26, 2014):

“I often fought with government officials because I said that my program belonged to the people. There was no need for giveback money... bureaucrats needed to be empowered as well so as to change their mental model. They had to realize that life is about sharing and being beneficial for others since they had the mandate to do development for people’s wellbeing.” (Green Tv IPB, 2014).

Political ambitions of certain government officials at times hinder the progress of the MHP projects, particularly in Cinta Mekar village and Ah Nuso village. As mentioned in the earlier sections, political turmoil that affect Cinta Mekar village had led to tedious lobbying and resulted in favorable policies. Puni had a different approach in the case of Ah Nuso village. She initiated the implementation of the ‘Village Bill’, in which the community entered into a legally binding agreement that the ownership of the MHP could not change hands. As consequence, no external parties, not even government officials or institutions, could take over the ownership of the MHP. (Lynch, 2011).

This corruption mentality was still deeply rooted in the country, making development process difficult. Villages often suffered due to the acts of corruption done at different levels of the government, starting from the central government until the village level. The hierarchy in the governmental system made it possible that the funds meant for village development to be cut as the money was passed from the upper level to the lower level. Therefore, when the money reached the deserving village, the amount was no longer enough to fund any development activities. As a

consequence, villages became underdeveloped and prone to poverty. (Untuk NKRI, 2014b).

According to Puni (T. Mumpuni, personal communication, August 26, 2014), the main obstacles were the unfairness in the Indonesian government's policy and asset distribution systems that lead to poverty and inequality. Puni witnessed many cases where the rich or the ones with resources were given the permit to take over local people's resources. The local people, who were the rightful owners of resources, did not have access to capital and information. Consequently, the local people became poor and were easily deceived in handing over their precious resources even though their survival heavily depended on the resources.

Puni believed that the solution to the problem was to initiate development to start from the village level (bottom-up). It could be done by instituting the four important capitals necessary for fair development process: natural resources capital, human capital, social capital, and economic capital. With the initiation of the four capitals, villages could be self-supporting and even become the center of economic activities in the same way as cities. (Untuk NKRI, 2014b).

5 DISCUSSION

This study attempts to explore the link between legitimacy and financial viability in a sustainable entrepreneurship journey. Therefore, the discussion is focused on three aspects. First, Tri Mumpuni's actions in confronting some critical incidents that have direct and indirect effects towards her journey of establishing and maintaining IBEKA's legitimacy. Second, the interplay between inter-organizational relationship and legitimacy and financial viability in relation to the various inter-organizational partnerships that Tri Mumpuni has formed. Third, Tri Mumpuni's way of maintaining the already established legitimacy and financial viability.

5.1 The Sustainable Entrepreneur

Tri Mumpuni is widely known as a woman who has provided electricity to tens of thousands of people in remote villages of Indonesia. Her work not only enables the isolated villagers to have lamps in their homes and to use electronic equipment that we oftentimes take for granted (e.g. telephone, television, radio), but also empower them to work together in making education, healthcare, and economic activities available in their village. The vast social impact of her work causes people to address Tri Mumpuni as a social entrepreneur. In theory, however, it is more accurate to classify her as a sustainable entrepreneur for reason that her work touches upon all of the elements of the Triple Bottom Line: economic, social, and environmental.

Reflecting on the vision and missions of Tri Mumpuni's enterprise, IBEKA, social and environmental elements are clearly expressed (see Figure 8). However, the elements do not have equal position. The social element is regarded as the desired outcome, which is expressed as the improvement of the "social and economic condition of the community in rural and remote areas" (Sovirahayu, 2011), whereas the environmental element is treated as the mean to achieve the desired outcome. IBEKA's vision is to improve people's wellbeing "by reconnecting the local resource to the local community using appropriate technology" (Sovirahayu, 2011). The word 'environment' is not directly used in the statement, but the word 'local resource' is

used to refer to different products of nature that are available in the vicinity of a particular rural and remote area. Although technology is used to make the local resource beneficial to the people, IBEKA does not exploit the environment. This is reflected in its vision, which mentions the use and the development of renewable energy technologies.

Figure 8: IBEKA's Vision and Missions

<p>VISION.</p> <p>IBEKA dedicates to make a significant contribution to improve the social and economic condition of the community in rural and remote areas by reconnecting the local resource to the local community using appropriate technology. The local community possession to the local resources will be the base of more equitable “future” economic model.</p> <p>MISSION.</p> <ul style="list-style-type: none">▪ Develop relationships / schemes in renewable energy programs which prioritized the benefits and impacts to community self-reliance, local socio-economic improvement and environmental issues.▪ Develop, promote and support wider adoption of renewable energy utilization, especially small scale hydro-power for local equity building.▪ Promote, develop, improve and support rural social entrepreneur to benefit the local community and local economic diversity.

(Source: Sovirahayu, 2011)

The economic element is not clearly mentioned in IBEKA’s vision and mission, however it can be found in the social business concept that Puni mentioned during the interview and in several secondary sources (e.g. Green TV IPB, 2014; Lynch, 2011). Puni stated that social business is a business beyond money and profit since generating benefit is the main aim of the business; nevertheless, as a business, profit has to still be made.

Recall the Triple Bottom Line and the scope of value creation proposed by Cohen, Smith, and Mitchell (2008) in which the Triple Bottom Line leads to seven different business motivation and objectives, namely (1) performance, (2) promise, (3) perpetuity, (4) socio-efficiency, (5) stewardship, (6) eco-efficiency, and (7) sustainability (see Figure 1 in Section 2.1). Social entrepreneurs and their social

enterprises are most likely to fall in the category of promise if they focus solely on creating social value with the absence of profit motivation. They are categorized as socio-efficiency if they tend to make profit whilst providing social benefits to the society.

Considering IBEKA's business model, IBEKA was initially established as a non-profit organization and then reformed into a social enterprise with a profit-making objective. It can be said that the enterprise's motivation and objectives has evolved from promise to socio-efficiency. Nevertheless, IBEKA is also concerned with the use of environmentally friendly technology to deliver its social value, thus the business model also involves the third aspect of the Triple Bottom Line (i.e. the environment). With the environment being in consideration, it is more appropriate to argue that the non-profit IBEKA upheld the stewardship motivation, as the enterprise was mainly concerned with the betterment of the people and the environment without the desire for financial return. Later on, when IBEKA became a social enterprise, it actually becomes a sustainable enterprise since all aspects of the Triple Bottom Line are infused in the business model.

The Triple Bottom Line is clearly present in IBEKA, however it is worthy to note that the three elements are also present in Tri Mumpuni's character. It is, of course, impossible to conduct an in-depth analysis of Puni's character with the data in this study. Moreover, it is not the objective of this study. Nevertheless, a deduction on Puni's character can be made by evaluating the various rhetoric that she used:

- Economic/ Profit

The main aim of the social business is to create benefits to the society; nevertheless, profit is also generated from the business activity (Untuk NKRI, 2014a). Puni even expressed the necessity of making a profit not only in social business, but also when helping others in need:

“Social business is an activity that solves social problems in the society while making a profit. Therefore, we are making ourselves rich by making

others rich. Such concept is halal and legitimate. This is how it should be. It is wrong if we help people but we become poor”. (Green TV IPB, 2014).

- The environment

Puni believes that investments have to not only be fair to the local people, but to also take into consideration of the harmony between the local culture/tradition with the local environment and nature (Eiji Press, 2012d; Indonesian Changemakers, 2012). Puni oftentimes refer to the environment in the context of local resources. Her desire is to reconnect the local people with the local resources, which are commonly exploited by the government and non-native owned businesses (Ashoka, 2014; Indonesian Changemakers, 2012; Lead International, 2012; Lynch, 2011; Positive Economy Forum, 2014; Untuk NKRI, 2014b).

- Social

Puni has a strong sense of helping others, which has been developed since childhood. Throughout the video and article materials, there were numerous occasions in which Puni expressed the importance of sharing and giving, doing something for others without expecting anything in return, as well as her desire to be beneficial for others (see Table 5). The tendency to help others is also reflected in her choice of education, which was initially medical doctor and changed to social economics, and career choices (i.e. assisting poor fish famers with USAID, being part of the low cost housing project in city areas with UNDP, and providing electricity to people in remote areas with IBEKA).

Table 5: Tri Mumpuni's Social Expressions

Sharing and Giving	<ol style="list-style-type: none">1. <i>“There are three important aspects in life: sharing fortunes makes you richer, sharing smiles makes you happier, sharing knowledge makes you more intelligent. So, continue sharing and you will have followers.”</i> (Aquan, 2012)2. <i>“[If] we are willing to share with other people, we can create a better environment globally.”</i> (Lead International, 2012)3. <i>“My father was always telling us, life is about sharing. Sharing is very important. And my mom was always telling me, life is about giving. To give.”</i> (Ashoka, 2014)4. <i>“(…) what I could remember about life with my parents was that we were always sharing and giving.”</i> (Tupperware She CAN, 2010b)
Doing Without Expecting Anything in Return	<ol style="list-style-type: none">1. <i>“I got in my life so many privileges from God, and this is the way to pay back”</i> (Connell, 2011)2. <i>“When we do something, we have to do it sincerely. We do not need to think about rewards. Things that we do sincerely and seriously will bring benefit to a lot of people. Be assured that Allah will give amazing reward in return. Sincerity should be the foundation of every work that we do.”</i> (Green TV IPB, 2014)
Being Beneficial for Others	<ol style="list-style-type: none">1. <i>“I want this to be a memory of my life that I want my life to be beneficial for others.”</i> (Green TV IPB, 2014)2. <i>“(…) whatever our circumstance or condition is, if we have good intention, hopefully our lives would always be beneficial for others. Believe in it, so, Insya Allah, our lives will have meaning for the people around us.”</i> (Tupperware She CAN, 2010c)

It is evident that the Triple Bottom Line is not only present in IBEKA's business model, but also in Tri Mumpuni's character. Therefore, it is more fitting to refer to Puni as a sustainable entrepreneur and to IBEKA as a sustainable enterprise. Practitioners may question the relevancy of making the distinction. Defining the correct type of entrepreneurship is actually important for every entrepreneur. According to De Clerq and Voronov (2009), entrepreneurs are expected to fit in with the existing business norms and behavior in order to acquire validation from other businesses and customers. If Puni is considered as a social entrepreneur, then her concern for the environment is irrelevant. Instead of using an environmentally friendly microhydro technology, she could have employed hydropower technology in order to reach more remote villages and to generate more income for the villagers, thus creating a greater social impact. This, however, is not the case. Environment conservation and social impact are both important for Puni and her team; therefore, they are adamant in using the microhydro system. By positioning herself as a sustainable entrepreneur and IBEKA as a sustainable enterprise, members of the sustainable industry (e.g. donors, investors, users) are able to make accurate evaluation on whether she and IBEKA fit in with the prevailing norms and behavior. Should both Puni and IBEKA fit in, validations in forms of recognition and supports (both financial and non-financial) will ensue.

5.2 Tri Mumpuni's Journey As A Sustainable Entrepreneur

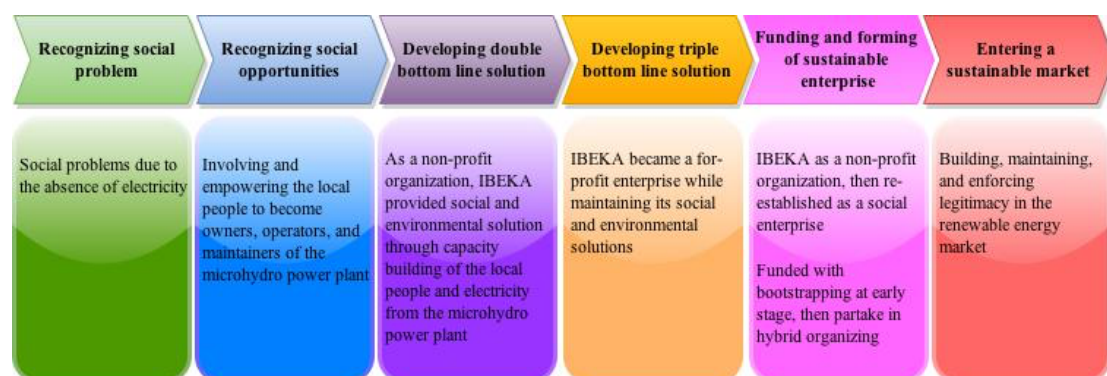
5.2.1 Sustainable Entrepreneurship Journey

Tri Mumpuni is not the innovator of the microhydro system, nor is she the one who initiated the microhydro movement in the remote parts of Indonesia. The microhydro is considered as an old technology and has been implemented in various countries. The microhydro system that IBEKA uses is adopted from Yayasan Mandiri. Considering that Puni's husband, Iskandar, is one of the initiators of Yayasan Mandiri and the technical expert of IBEKA, one may wonder why Puni is the sustainable entrepreneur instead of Iskandar. The interview with MR. EG, who worked with both Puni and Iskandar, could shed a light on this issue.

According to Mr. EG, Puni has the capability to communicate the microhydro ideas and concept to the people in the village, whom are not aware of their need of electricity and are not highly educated. Her simple explanation is able to convince the villagers to participate in the program. As an engineer, Iskandar may know the system and the technology by heart, but he may have difficulties in expressing the concept and convincing the people that they need the system to improve their wellbeing. As a result, Puni was better known by the villagers and, later on, became the face of the community-based microhydro movement and IBEKA. (EG, personal communication, April 24, 2015).

Even though Puni is not the founder of the microhydro technology and system, she has experienced the sustainable entrepreneurship journey process proposed by Belz and Binder (2013) (see Figure 9). Upon her resignation from UNDP, her husband tried to persuade her to join him in the microhydro movement. As she accompanied Iskandar to the site of the project, she witnessed how the life of the people unreached by electricity is transformed because of the electricity from the microhydro power plant. She recognized various social problems resulting from the absence of electricity, such as the inability to study and to do family activities after dark, the inability to use electrical appliances to increase economic productivity, and the isolation from the outside world due to non-existing access to electronic media. These problems can be solved by providing access to electricity, just as Yayasan Mandiri had done for more than years.

Figure 9: Tri Mumpuni's Sustainable Entrepreneurship Journey



Puni, however, does not want to only provide electricity to the people. She realized that there is an opportunity to solve more social problems if the community is involved and empowered throughout the process. As the community needs to be prepared to become owners, operators, and maintainers of the microhydro power plant, as well as to manage the village development fund, there is a need to form a team of social experts to train the community members. Therefore, in addition to the technical team that is in charge of building the power plant with the community, there is a newly formed team, the social team, to work with the social aspect of the program.

At this stage, a double bottom line solution is in place when Puni decides to join her husband and established IBEKA. It is important to note that at this point the couple is only concerned with two bottom lines (social and environmental), since IBEKA is initially established as a non-profit organization. Puni, as the executive director of IBEKA, is responsible for the funding of the program. At first, Puni and her team rely on bootstrapping and funds from the local farmers when conducting their first project at Cinta Mekar. After the first project is successful and the impact could be clearly seen, third parties start to get involved in the project and provide funding for subsequent subjects.

Years after the formation of IBEKA, Puni and her team begin developing the third element of the Triple Bottom Line: economic element. IBEKA is then transformed into a social enterprise that also aims to make a profit. However, the profit is not acquired from the electricity generated by the microhydro power plant or from the donor funding since these money are solely meant for the community and for the cost of implementing the program. Instead, IBEKA acquires its profit from consultation and training services related to microhydro and social entrepreneurship, as well as the guesthouse that they have built in the vicinity of Cinta Mekar's microhydro power plant.

As for the funding for the microhydro project, Puni is involved in hybrid organizing, in which she cooperates with different institutions, namely donor organizations, private companies, and governmental institutions to finance the program. For off-grid projects, Puni normally involves either a donor organization or a private company to fund the project. In the case of the on-grid at Cinta Mekar, Puni

involves both a donor organization (UNESCAP) and a private company (PT. Hidropiranti) to fund the project. It is most likely that the same arrangement is applied to the other on-grid programs. Such inter-organizational relationship, particularly with non-Indonesian partners, is made possible by the Triangular Cooperation. In essence, Triangular Cooperation is beneficial for Puni since it enables providers of simple technology from developing countries to be financed by developed countries, whose technology is too advanced compared to the local needs (EG, personal communication, April 24, 2015).

Finally, Puni leads IBEKA to enter the renewable energy market in Indonesia, specifically into the community-based renewable energy market. At this stage, Puni has to develop, maintain and enforce the legitimacy of IBEKA as a sustainable enterprise. Therefore, in consideration of Puni's experience, it is argued that:

Proposition 1. A sustainable entrepreneur may not be the founder of the business idea, but s/he may undergo the sustainable entrepreneurship journey as proposed by Belz and Binder (2013) wherein the entrepreneur improves the initial idea and eventually become recognized as the face of the business.

5.2.2. The End of the Sustainable Entrepreneurship Journey

Every journey has a beginning and an end. McMullen and Dimov (2013) argue that an entrepreneurial journey ends when the enterprise has reached positive cash flow or financial viability. In Tri Mumpuni's case, even though the information on IBEKA's financial performance was not acquired for this study, the enterprise's financial viability can be deduced with three facts. First, as mentioned by Puni herself, financial providers has approached her to take part in the project, thus ensuring every project to be fully funded without the need for the enterprise to incur any operational expenses. Second, IBEKA is able to take part in the investment for the Cinta Mekar on-grid project (in the amount of USD 75,000) thirteen years after its establishment. Therefore, the enterprise has acquired enough funds to set aside as investment, which leads to the third fact: the expansion of the business. The investment is used to build a microhydro training facility at Cinta Mekar, thus expanding the business to consultancy and training services.

Tri Mumpuni's entrepreneurial journey would have ended according to McMullen and Dimov's theory. However, this is acceptable if Puni is a performance entrepreneur whose objective is profit maximization. On the contrary, Puni is a sustainable entrepreneur whose aim is not only to make a profit, but also to generate social and ecological impacts. Therefore, there must be additional indicators, which are related to the socio-ecological impact, for the conclusion of sustainable entrepreneurs' journey. As listed on Table 4 (Section 4.1.8), IBEKA has already generated an extensive Triple Bottom Line impact. Nonetheless, as mentioned by Slaper and Hall (2011), a standard measurement to evaluate social and ecological impact is not yet available, thus making it impossible (at the moment) to indicate whether IBEKA has reached the necessary impact level to be considered socially and ecologically viable.

Belz and Binder (2013) present a different conclusion for entrepreneurial journey. According to the authors, sustainable entrepreneurship journey ends at market creation, in which the entrepreneur creates a new sustainable market, enters an existing sustainable market, or enters a new sustainable market segment. In my opinion, the conclusion of the journey seems abrupt and anticlimactic knowing that the authors have presented five elaborative preceding phases. Sustainable entrepreneurs have to face numerous challenges after market creation, among others legitimation of the enterprise in the eyes of stakeholders, creating social and ecological impact, and ensuring profitability. In Puni's case, for example, she has to face the challenge of convincing the villagers to participate in the program and provide proof to future partners of the true impact of the program. In other words, Puni has to legitimize the business in the eyes of stakeholders.

Legitimacy challenges are important in deciding whether sustainable entrepreneur fail or succeed. The entrepreneurs' success or failure in the market makes a nice ending for the journey since it gives a better picture of how the strengths and/or the flaws of the earlier phases of the journey contribute to the conclusion of the journey. Therefore, it is proposed that:

Proposition 2: Although financial viability and market entry are necessary, they are not sufficient in indicating the conclusion of a sustainable entrepreneurship journey; instead, the entrepreneur's success in maintaining

legitimacy and achieving the Triple Bottom Line goals should also be considered in order to get a fuller understanding of the end of a sustainable entrepreneurship journey.

5.3 Hybrid Organizing in Sustainable Entrepreneurship

Tri Mumpuni has collaborated with different institutions to implement the microhydro program. Puni believes that a business for the sake of the society requires the cooperation of at least three different institutions (M. Yanuardi, personal communication, 9 April, 2015). Her partners are among others the Government of Indonesia (e.g. the Ministry of Foreign Affairs), PLN, the Embassy of Japan, JICA, UNESCAP, GTZ, USAID, socially motivated investors, as well as national and foreign private companies. The partnerships with governmental, non-governmental, for-profit, and charity organizations confirm Battilana and Lee's (2004) argument that sustainable entrepreneurs engage in inter-organizational relationship to cooperate with financial providers in order to sustain their business. The authors argue that such cooperation is possible due to the fact that the enterprise combine aspects of charity and business.

Battilana and Lee (2004) claim that the combination of charity and business may create tension due to the opposing objectives of the two organizational forms. The charity side requires the venture to achieve social and ecological missions, while the business side demands positive financial performance. As consequence, internal and external tensions may arise. Internal tension occurs because the entrepreneur has to maintain the balance between charity and business in the venture operations.

In Puni's case, it is evident that IBEKA does not take any profit from implementing the microhydro program since the acquired funds are used to finance the program and not to cover overhead costs. The microhydro program is the charitable aspect of IBEKA's business model; it revolves around social and ecological missions. IBEKA obtains its profit from other activities, namely consultancy service, training, and renting out guesthouses for trainees. Puni is able to circumvent internal

tension by making a clear distinction between charity and profit-making activities. Therefore, it can be argued that:

Proposition 3a. Internal tensions in hybrid sustainable ventures that resulted from the combination of charity and business can be circumvented by separating the charity activities from the profit-making activities.

External tensions occur because charity and commercial organizations have different expectations when collaborating with a sustainable venture. Battilana and Lee (2014) question whether the combination affected organizational strategies in a way that the strategy has to be adapted according to the type of financial provider. Tri Mumpuni gives the impression that she does not adapt any strategy when dealing with partners and financial providers. Her strategy is to present a clear picture of IBEKA's vision, mission, and programs, as well as informing the prospective partners and donors of the element of the program to collaborate on. She does this at the first meeting with any prospective partners and donors. She is firm about other organizations having to conform to IBEKA's values and rules before proceeding with the collaboration. (T. Mumpuni, personal communication, August 26, 2014). Since Puni applies the same strategy to all partners and financial providers, it seems that it is possible to employ the same strategy for all inter-organizational relationships when the entrepreneur has demonstrated strong values and visions, which the external organizations find convincing and achievable. Therefore, legitimacy is crucial in building strong inter-organizational relationships. For this reason, it is proposed that:

Proposition 3b. Hybrid sustainable ventures may experience external tensions in relation to inter-organizational relationship due to the integration of opposing organizational forms (i.e. charity and business); however external tension is minimum when prospective partners have legitimized the venture's values and visions, thus convinced of the viability of the business model.

5.4 Establishing Legitimacy

Entrepreneurs are constantly challenged to legitimize themselves and their enterprises. New entrants are especially challenged due to low familiarity and

credibility in the eyes of the stakeholders. According to De Clercq and Voronov (2009), new entrants face the paradoxical demand to fit in and stand out. Entrepreneurs may then gain legitimacy when they have successfully fulfilled these demands.

5.4.1 Fulfilling the Demand to Fit In

Following the sustainable entrepreneurship journey, Puni has to maintain the legitimacy that IBEKA has acquired. Puni's statement during the personal interview has strongly indicated that IBEKA has reached legitimacy because donor organizations has been approaching her to offer their support: "[The donor organization] *came [to us] because they thought that we have a good project, so they came. And they were offering us support*" (T. Mumpuni, personal communication, August 26, 2014).

Puni, who is responsible in raising funds for the projects, does not have to do much. Donor and private organizations has been contacting her to offer financial support. For this reason, IBEKA has managed to build 82 microhydro power plants without any sign of stopping. Moreover, the program has been implemented in Indonesia and abroad. According to Puni, the donors are ever ready to support her because of her track record and integrity, as well as the sustainability of the program

In my opinion, the three said aspects (see Table 6) could also be used as indicators of Puni fitting in to the expectations of the stakeholders and the existing institutional norms. First, a clean track record is most certainly appreciated by the stakeholders and other members of the industry. Any indication of flaw or major mistake in the track record can not only damage the entrepreneur's personal reputation, but also risk the enterprise from being expelled from the industry. Second, the strong civil movement against corruption and the enactment of anti-corruption law has deterred ethical businesses and organizations from conducting corrupt deals, even at the cost of damaging relationships or risking future disputes. Nonetheless, integrity is valuable for ethical businesses and/or organizations to have trustworthy relationships. Third, as explained by Puni, sustainability of the program is important in the midst of many unsustainable programs. Consequently, sustainability is strongly expected in the industry.

Table 6: Aspects that Lead Donors and Organizations to Legitimize Tri Mumpuni

<p>Track Record</p>	<ol style="list-style-type: none"> 1. <i>“For me the very important thing is to have a very good track record.”</i> (T. Mumpuni, personal communication, August 26, 2014) 2. <i>“It’s important for us to have a track record. When you choose a leader, look at the track record. Then you will know if the person is istiqamah and really fighting for the cause”</i> (WCKAMP.US, 2014)
<p>Integrity</p>	<ol style="list-style-type: none"> 1. <i>“The first time we meet [prospective donors], we give them a very clear picture of what we are and what we are doing, who we are and what kind of activities that we want to collaborate. Our value is very crystal clear that we want to give the most benefit to the local community. No hanky panky business and no give back. Nothing like that.”</i> (T. Mumpuni, personal communication, August 26, 2014) 2. <i>“The most important thing is integrity. We need to have integrity. (...) If we have integrity, we must be anti bribery and no one could persuade us to engage in hanky panky business.”</i> (WCKAMP.US, 2014)
<p>Sustainability of the Program</p>	<ol style="list-style-type: none"> 1. <i>“We show [the donors] proof, especially in situations where there are so many unsustainable project. They are looking for something that are really sustainable. We show the proof that what we are doing is sustainable.”</i> (T. Mumpuni, personal communication, August 26, 2014) 2. <i>“(...) we have to make sure that everything has to be sustainable. To make it sustainable, we definitely have to involve the community from the very beginning of the project.”</i> (Lynch, 2011) 3. <i>“To make it sustainable is our first priority. It is by giving training and empowering the local community, so the community understands the technology.”</i> (Ashoka, 2014) 4. <i>“Even though [the microhydro power plant] looks so sophisticated, but it is actually user friendly because we have to make sure that the technology could be brought close to the community. Therefore, it is appropriate and meaningful, as well as sustainable. We have to make sure that the community is able to maintain and operate the facility that we have been working and developing together with them.”</i> (Lynch, 2011)

Therefore, it is proposed that:

Proposition 4a. Sustainable entrepreneurs could fit in to the stakeholders' expectation and institutional norms by showing a reliable track record, integrity, and provide proof of the sustainability of the program.

5.4.2 Enhancing Legitimacy Through Standing Out

Tri Mumpuni has built 82 microhydro power plants (and counting) through her work with IBEKA. The building of the numerous power plants in itself is already impressive, but there are other aspects that differentiate Puni from other seasoned entrepreneurs and, thus, further legitimizing her enterprise. As discussed earlier, legitimacy has been achieved as the result of Puni's good track record and integrity, as well as proof of the program's sustainability. Nevertheless, these aspects does not propel her to becoming an award winning and internationally recognized entrepreneur. Instead, other aspects, namely her determination, the concept of reconnecting local resources to the local people, and the conviction in empowering the marginalized allow her to fulfill a criteria for legitimacy, which is to stand out from the existing behavior and norms within the sustainable industry by bringing change (De Clerq and Veronov, 2009).

- Determination

Puni's determination to build the microhydro power plant is evident since the beginning of her work at IBEKA. She sees the benefits that the power plant could bring to the people and is committed to implement the program even though the money is not at hand yet. She stated that, "*I stubbornly insist that [the program] has to be executed. [Iskandar asked] where will we get the money? I said, do not think about it. If our intention is good, the money will come on its own.*" (Erdianto, 2014). Puni was right. In time, money for the program does come on its own as donors approach her to offer financial support.

Puni's determination in her work is also expressed during interviews and presentations. Puni also likes to encourage the audience to be committed (Aquan, 2012; Green TV IPB, 2014), focused (Green TV IPB, 2014), and highly motivated (Aquan, 2014) so that their own work could create an impact. She also advises the

audience to achieve something that others find impossible (Green TV IPB, 2014), even if it leads to failures. She maintains that when one fails, one has to stand up and try again (Ashoka, 2014; Green TV IPB, 2014). These advises are not merely empty talks, as Puni walks the talk during her battle against unjust political powers.

The most prominent incident in which Puni's determination is tested is when the state-owned electricity company, PLN, enters Cinta Mekar village in order to fulfill the political ambition of the district head. Most people would have treated this situation as some kind of a *force majeure* since politics is an incredible force in the country. Instead of accepting this condition, Puni lobbies different bodies in the government to change the existing law to be in her favor or, more fittingly, in the villagers' favor. Her only desire is for PLN to buy electricity from microhydro power plants operated by villagers. This desire is outrageous at the time, but she is determined to make it happen for as long as it takes. She often expresses her determination by saying, "*I am a woman and I am patient to wait until I get what I want.*" (Deutsche Welle, 2013; Erdianto, 2014; Lynch, 2011). The process takes eight years until the desired law was enacted. However, the law not only obliges PLN to purchase electricity produced by people-owned microhydro power plants, but also any small and medium sized renewable energy power plants operated by civilians. Puni's lobbying has benefited others who are working in the renewable energy sector.

Puni become known as a woman who changed the electricity business in Indonesia as she opens up new opportunities in the renewable energy sector. The change that she is making does not end here. With the new law being in place, she takes the opportunity to create a partnership between the people, the government, and private businesses by formulating a Public-Private Partnership program in microhydro project. It is the first in Indonesia and it is most probably the first in the world considering the great attention different prestigious organizations give to the program.

- Reconnecting Local People with Local Resources

Puni can be viewed as an advocate for reconnecting the local people with the local resources. She oftentimes stresses that the resources belong to the people living in the surrounding area, thus they have the right to manage and utilize these resources (e.g. Ashoka, 2014; Eiji Press, 2012d; Untuk NKRI, 2014b). However, this right is taken away from them as the government or those with money exploit the resources.

For this reason, Puni believes that poverty occurs due to the disconnection between the local people with the local resources (e.g. Ashoka, 2014; Indonesian Changemakers, 2012; T. Mumpuni, personal communication, August 26, 2014), and it is her mission to reconnect them:

“Poverty is only a symptom. It’s not the real problem. The virus is the removal of the local resources that has become the life support of the local people. This is the disease that we have to medicate. How? By reconnecting local resources to the local community”. (Indonesian Changemakers, 2012).

I agree with Puni that reconnecting the local people with local resources can be the solution to solve poverty problems in Indonesia. In a nutshell, Indonesia’s government has taken the centralization approach after the country’s independence in 1945. Not only that every decisions were made by the highest authorities of the central government, but resources produced in every parts of the country were also strictly controlled and distributed by those in the capital city. Only after the fall of President Soeharto in late 1990’s did decentralization start to take place. Districts are given the autonomy to manage its own resources. However, decentralization only shifts the power from the central government to the local government, making the people continue to be disconnected from the resources. The greatest pity is that the most abundant natural resources are at the doorstep of the poverty-stricken people in villages. They do not utilize the resources because they do not know how and/or do not know that they could.

Puni’s work through IBEKA is about reconnecting the villagers to the local resources, which in this case is in the form of water in the rivers. The villagers are made aware of the life changing benefits that they could get from the river. Then, they take care of the surrounding nature of the river in order to sustain its benefits, thus creating a symbiotic mutualism relationship between man and nature. The reconnection consequently leads the village to become self-sufficient as it has sufficient capital to build its own infrastructure, to provide healthcare and education, and to support local businesses. In time, villages grow to be centers of economies without the assistance of the local and central government. If this concept is to be applied in other villages, even the ones with different local resources, poverty-free Indonesia will no longer be a fool’s dream.

- Empowerment

Empowerment of the villagers is one of the aspects that make Puni's work stand out. In Indonesia, there are numerous small to large scale projects in progress every year, but only a few that involve the beneficiaries. Most of the projects are merely about constructing the facilities, which will then be handed over to the respective local government bodies or to other beneficiaries. My meager work experience has allowed me to witness the projects conducted by the Indonesian government and international donor organizations (e.g. the World Bank) in the poorer districts or villages in Indonesia. Most of the projects are concerned with providing infrastructures (e.g. road, drainage system), which are very much needed. After the infrastructures are provided, the people are then provided with state-of-the art facilities for clean water, irrigation, energy production, and so on. In so many cases, these facilities are in operation for merely a year before they break down and abandoned, simply because the beneficiaries do not know how to operate and/or do not know the benefits of the facilities.

Most Indonesians, including myself before conducting this study, have little confidence in people living in villages. These simple people are oftentimes viewed as uneducated, naïve, and helpless; therefore, they need the assistance of those who are more intelligent and experienced. For this reason, villagers are treated merely as aid receivers. Puni, however, refuses to see them as incapable and treat them as equals:

“In order for the people to be adept in technology, they need to be empowered. I genuinely dislike hearing the villagers have to be aided. No. Aid gives the impression that the receiver is inferior from the provider, while the provider has more power. In contrast, empowerment put the provider and receiver in equal position. We have the responsibility to empower our people so that they are technology literate.” (Untuk NKRI, 2014a).

Treating the villagers as equals, in the context of development, might have casted a lot of doubts for leaders in Indonesia. Puni answered the leaders' lack of confidence in the people by saying:

“What we need to give them is trust. I oftentimes hear people ask, are they capable? A lot of head of districts asked me the same question. So, I reversed

the question. How do you as a leader make the people capable? If you have trust and you build that trust, the people would return the same trust to you.” (Indonesian Changemakers, 2012).

Puni is strongly confident in the capability of the local people since she has worked with them for more than twenty years. The local people have shown the capability to develop themselves (Lynch, 2011), making empowerment possible. Puni’s empowerment principle is about developing the local people’s motivation, confidence, self-valuation, experience, creativity, and self-reliance, thus enabling them to contribute to the development of their own community (Lynch, 2011). The empowerment principle is implemented by involving the villagers throughout the program. Prior to the start of the program, the villagers decide whether the program should be carried out or not. Thereafter, they decide on the tariff, the village development activities, the cooperative staffs, and so on, because they have become owners of the microhydro power plant. The empowerment principle is the reason for Puni’s program being sustainable. Most government and non-governmental programs fail due to the absence of people’s empowerment.

In order to enhance the already established legitimacy, it is suggested that:

Proposition 4b. Through indomitable determination, strategies to connect local people with local resources, and empowerment of the marginalized, sustainable entrepreneurs could stand out from competitors and be recognized for their work.

5.5 Maintaining the Established Legitimacy

Tri Mumpuni has gained legitimacy for IBEKA and herself by fitting in and standing out from the sustainable industry standards. It seems that her hard work has paid off and she could slow down since the donors continue to offer financial support. However, Puni has a dream to build microhydro power plants in 1,000 remote villages. The dream not only requires unceasing hard work, but also maintaining and enforcing the established legitimacy. Puni may continue with the right things that she has been doing (e.g. maintain good track records, ensuring the sustainability of the

program, being determined, and empowering the people) to maintain the legitimacy, but she has been strengthening the legitimacy by sharing her knowledge and stories.

Donor organizations are not the only source of funding for IBEKA programs. Puni has been approached by individuals who gave her funds for the program. The individuals mentioned in section 4.2.2 (a woman, a group of maids, and a person in Japan), are moved to donate some money after listening to Puni's stories and/or presentations. It cannot be denied that Puni's ability to express her vision and the desired impact makes people believe in her capability to get the job done. Puni never shy away from the opportunity to share her visions and program to others through broadcasted interviews and various presentations. The frequent presence in different media, be it television, print, or online media, allow her to reach more individuals and strengthening her reliability in the eyes of potential donors.

Puni, however, does not focus her attention solely on prospective donors. Puni sets aside some of her time to talk to future leaders by becoming the guest speakers in numerous university-level events. For instance, Puni was one of the speakers and mentors of the Young Leaders of Indonesia 2012 where an interviewee of this study, Monica Yanuardi, participated. Puni spoke in two sessions where she shared with the young people about (1) how to build a business that contributes to the development of Indonesia and (2) how to make a concrete contribution to Indonesia. Interestingly enough, in the first session she did not merely describe her achievements, but she explained the steps that she took to build her sustainable business. (M. Yanuardi, personal communication, 9 April, 2015). Such explanation can also be found in the videos of her other presentations at similar events.

Businesses would want to protect the ingredients of their success in order to protect themselves from competitors. Conflicting to the common business practice, Puni openly shares the secrets to her success and even encourages others to replicate the business model. This could be a risky strategy since there could potentially be many competitors emerging. Nevertheless, the advantages outweigh the disadvantage of having competitors.

The risk is small because there are thousands of remote villages in Indonesia where the business model can be applied. There is a small chance for Puni and her

competitors to want to work in the same village, unless Puni and her competitors only focus on a certain province or district. Moreover, Puni has an earlier start in establishing legitimacy for the program. She is already known as the expert, thus competitors have to innovate in order to grab her position at the top.

The advantage for sharing her knowledge is to let stakeholders know that the concept truly worked. When explaining the business model and the off- and on-grid model, she gives the impression that the concept is simple and easily executed. Consequently, prospective donors and benefactors can be effortlessly convinced that Puni and her team possess the capability to perform the demanding work. Needless to say, Puni's charismatic and inspirational public speaking ability may be the primary reason for people's faith in her cause. Nevertheless, in Puni's case, knowledge sharing is a smart strategy to enforce legitimacy. This strategy is in line with Austin, Stevenson, and Wei-Skillern's (2006) proposition that transfer of knowledge to a third party is one of the multiple factors that lead entrepreneurs to acquire external funding.

In addition to sharing her knowledge, Puni frequently shares stories of her personal life and experiences related to IBEKA. According to Lounsbury and Glynn (2001), storytelling can help entrepreneurs explain, rationalize and promote their new venture. Nevertheless, storytelling can also be used to enforce the already established legitimacy. Puni tells her stories in interviews and presentations that took place years after IBEKA was established. By this time, Puni has already received acknowledgements for the success of her work. Therefore, it could be argued that the purpose of her storytelling is not to build legitimacy, but to maintain and/or reinforce it.

The stories about her personal life can help the listeners to establish a favorable impression about her. The story of her childhood, for example, is filled with memories of her parents teaching the importance of sharing and different events in which she helped the poor. The stories help people to understand her history, as well as the reason for her passion towards helping the underprivileged. Even though different people may give different meaning to the story, it is easier for people to believe that Puni truly place higher importance on the social impact of the program rather than on profit. Moreover, the stories can also act as a reminder to help those in need, thus motivating people to take part in the cause.

Puni has told many stories about her experiences with IBEKA. There are three themes that oftentimes emerge (see Table 7). First, the villagers' first reaction upon seeing their house becoming bright at night. Such stories help people who have taken electricity for granted to understand the life changing effect of having access to electricity. Therefore, people are informed of the basic, but profound, impact of the program before the other social impacts are revealed. Second, strangers being moved to make financial contributions. Puni likes to use these stories whenever the issue of money arises in order to show that the combination of good intentions and hardwork would result in acquiring the necessary funds. This story actually has greater significance, as it is easier for people to believe in the feasibility of the programs if others before them have already been convinced. Third, issues with authorities that strengthen the cause. Puni never hide the fact that she has conflicts with government officials, politicians, commercial businesses, and technical experts from time to time. Despite the conflicts, she maintains that she always manage to go around the problems and come up with solutions that strengthen the program (e.g. lobbying for a new law, formulating ownership contract for the power plant). Such stories give assurance that 'greater power' may not be effective against Puni's determination.

In light of Austin, Stevenson, and Wei-Skillern's (2006) suggestion that the acquisition of external funding is dependent on transfer of knowledge to a third party, as well as Lounsbury and Glynn's (2001) findings on the use of storytelling to gain legitimacy; therefore, it is proposed that:

Proposition 5. Sustainable entrepreneurs may maintain the already established legitimacy by exposing themselves in print and broadcast media and appearing in conferences with the intention (1) to transfer their knowledge in building the venture so as to proof its replicability and viability and (2) to tell stories of their experience that could convince others of the entrepreneurs' capability and the importance of the generated socio-ecological impacts.

Table 7: Themes of Tri Mumpuni's Stories of IBEKA

<p>Villagers' first reaction upon seeing their house becoming bright at night</p>	<p>1. <i>For me, the most important thing that cannot be measured with money is to see villages becoming bright and to see the changes in the faces of the people who were once desperate. I would never forget this Dayak man who lived in darkness in the forest. His wish was to be able to have dinner with his family in the evening. When we gave electricity in 1995 to a remote area in West Sumatra, he screamed, 'HAH, Allahu Akbar! We finally experience freedom'. I often laugh when I think back at this moment".</i> (Tupperware She CAN, 2010c).</p>
<p>People being moved to make financial contributions</p>	<p>1. <i>"I believe that strong passion would generate money. So, just work. Believe it or not, there was an old lady that all of a sudden approached me. I didn't know where she was from. She said, "I knew you because I saw you on TV and I saw what you have been doing." Then she took out a quarter of a kilo of gold bar. I was so shocked. I didn't know what to do with it. It was the first time that I saw a gold bar"</i> (Aquan, 2012)</p> <p>2. <i>"I was on my way home from New York and was transitting in Qatar. I met a couple of [Indonesian] female maids. I treated them for drinks. When I arrived home, I was shocked when I opened my email. The maids had raised money among themselves and wanted to send it to me. They said that they were confident that the money would be beneficial for the people living in darkness. Instead of being happy, I was crying. These women worked so hard and still thought about building the villages. It didn not make sense"</i> (Aquan, 2012)</p>
<p>Issues with authorities that strengthened the cause</p>	<p>1. <i>"Government officials often fought with me because I said that the program belonged to the people, so there would be no need for 'security money'. (...) The mental model of bureaucrats was wrong as they viewed projects as money. This is my homework. If we talk about empowerment, we have to also empower the bureucrats to change their mental model to life is about sharing and giving. Especially because they are given the mandate to improve people's lives."</i> (Green TV IPB, 2014)</p> <p>2. <i>"There was a problem before I left [for this event]. There was a campaign for the new head of district and they would love to take over this facility. They wanted to take over and promote it to be the work of the current head of district. They hoped to get more votes from it. We had a big fight. I do not know the outcome yet since I had to come here, but we have prepared everything."</i> (Lynch, 2011)</p>

6. CONCLUSION

6.1 Research Summary

The purpose of this study is to explore the link between legitimacy and financial viability in a sustainable entrepreneurship journey. The study focuses on three aspects. First, the sustainable entrepreneur's actions in confronting various critical incidents within her entrepreneurial journey that have direct and indirect effect towards legitimacy formation and funding acquisition. Second, the interplay between inter-organizational relationship and legitimacy and financial viability in the context of hybrid sustainable enterprise. Third, the different practices conducted by the sustainable entrepreneur in maintaining the established legitimacy and financial viability after a long-standing presence in the market. It was found that the findings and discussion of this study contribute to theories of sustainable entrepreneurship journey, hybrid organizing, and institutional legitimacy.

The sustainable entrepreneur, Tri Mumpuni, is an internationally acknowledged social entrepreneur. However, the study has found that Tri Mumpuni is a sustainable entrepreneur since the Triple Bottom Line is incorporated in her personal characters and IBEKA's business model. Even though Puni is not the innovator of the microhydro technology nor is she the initiator of the microhydro movement, she is considered as the leading person and the entrepreneur in IBEKA. She experiences the sustainable entrepreneurship journey process, which began when her husband invited her to join the microhydro movement. From that point on, she recognizes the prevalent social problems and opportunities, which leads to her involvement in the formation of the Triple Bottom Line solutions, funding and formation of the enterprise, and entrance to the market. Therefore, it is asserted that although sustainable entrepreneur may not be the founder of the business idea, s/he may undergo the sustainable entrepreneurship journey as proposed by Belz and Binder (2013) wherein the entrepreneur improves the initial idea and eventually becomes recognized as the face of the business.

The literature on sustainable entrepreneurship journey (i.e. Belz & Binder, 2013) maintains that the end of the journey is marked by the entrance of the

sustainable enterprise into the market. The entrepreneurship journey theory (i.e. McMullen & Dimov, 2013), however, argues that financial viability is the indicator of the completion of the journey. This study disagrees with both arguments since they do not take into account the aspects of the Triple Bottom Line. Binder and Belz (2014) disregarded the Triple Bottom Line entirely and emphasize solely on market entry, while McMullen and Dimov (2013) focus only on profitability. Market entry and financial viability are necessary in entrepreneurial journey, however they are not sufficient to conclude the journey. The entrepreneur's success (or failure) in maintaining legitimacy and achieving the Triple Bottom Line goals should also be considered in order to get a fuller understanding of the end of a sustainable entrepreneurship journey.

The study has found that Tri Mumpuni is also involved in hybrid organizing in order to finance IBEKA. She has combined the aspect of charity and business in the business model, thus attracting different types of organizations to collaborate with. Battilana and Lee (2014) argue that the combination of charity and business could result in tension due to their opposing nature. The resulting tension could be internal and/or external. Internal tension is the result of the opposing expectations between charity and business where the former expects socio-ecological impacts while the latter demands profitability. The study shows that separating charity activities from profit-making activities can circumvent internal tensions. External tensions may arise in inter-organizational relationships, especially when there are multiple partners with different organizational forms. These partners may have different expectations and demands towards the venture. The study finds that external tension is at minimum when the partners have legitimized the venture's values and visions, thus convinced of the viability of the business model.

In relation to legitimacy, there are a number of strategies that Puni employ to establish and maintain the legitimacy of IBEKA. When establishing legitimacy, Puni fits in to the stakeholders' expectation and institutional norms by showing a reliable track record, integrity, and provide proof of the sustainability of the program. The established legitimacy is then further enforced through her indomitable determination, strategies to connect local people with local resources, and empowerment of the marginalized. These strategies enable her to stand out from competitors and to be

internationally recognized for her work. At the moment, Puni has been in the sustainable business sector for more than 20 years without any sign of stopping. She continues to maintain the already established legitimacy through knowledge sharing and storytelling in order to secure the interest of prospective and existing financial providers. In light of Puni's successful experience in maintaining legitimacy, the study concludes that sustainable entrepreneurs may maintain the already established legitimacy by exposing themselves in print and broadcast media and appearing in conferences. Their presence in the media and conferences would enable them to transfer their knowledge in building the venture so as to proof its replicability and viability and to tell stories of their experience in order to convince others of their capability and the importance of the generated socio-ecological impacts.

6.2 Limitations of the Study

The main limitation of this study is the fact that the personal interview with Tri Mumpuni was conducted only once. Initially, at least three interviews were planned, but it was not possible due to geographical constraint and Puni's tight schedule. I was in Finland and Sweden throughout the entire study, while Puni was travelling between Jakarta, the project sites, and Europe. It was difficult to arrange a time for a Skype interview. Nevertheless, it was possible to get rich data for the study since there were numerous interviews and lectures videos, which are available online. The videos prove to be very beneficial for the study since there is a lot of information that may not have surfaced because I have not thought of it as relevant. Even so, it would have been better if there were more interviews, especially to clarify and expand some information.

The interviews with Mr. EG and Monica have resulted in information that could enrich the study. Therefore, in addition to more interviews with Puni, the study can be improved by interviewing people related to IBEKA, such as Iskandar, IBEKA staffs, Cinta Mekar villagers, and representatives from donor organizations. Interviews with Iskandar and IBEKA staffs will shed a light on internal legitimacy, which has not been discussed in this study even though it is an important aspect of

legitimacy. Interviews with villagers in Cinta Mekar (or other villages) and representatives of donor organizations can give a deeper understanding on how Puni gain the trust and confidence of both parties. The interviews can provide a more objective view on how Puni gain external legitimacy. With both internal and external legitimacy, it will be possible to investigate whether the alignment of both internal and external legitimacy lead to the acquisition of financial and non-financial support from the stakeholders.

6.3 Suggestions for Further Research

In consideration of the limitations of this study, subsequent research should be built on the findings while resolving the mentioned limitations. Additional personal interviews with Tri Mumpuni and interviews with parties related to IBEKA will not only enrich the current findings, but also uncover new aspects on legitimacy worthy for discussions. It will be even more interesting if the additional data facilitate the discussion on the effect of alignment between internal and external legitimacy on acquiring support from stakeholders. The discussion may lead to an understanding on the importance of legitimacy alignment for entrepreneurs.

The interviews with Mr. EG and Monica reveal some information about the personality of Tri Mumpuni. Even though the focus of the current entrepreneurial research is no longer on the individual entrepreneur, the importance of socio-ecological impact may have an effect on the characteristics of sustainable entrepreneurs. It is worthy to investigate whether attitudes that are present within Puni, such as simplicity, humility, passion, empathy, and charisma, are the prerequisites for a successful sustainable entrepreneur.

In consideration of the public's increasing awareness of sustainability issues, it can be predicted that sustainable entrepreneurship will be on the rise in the near future. Legitimacy of sustainable entrepreneurship will then be crucial in order for these enterprises to survive in the market. This study has found that financial viability and market entry should not be the sole indicators for legitimacy but socio-ecological impact should also be considered. With the absence of a standard measurement socio-

ecological impact, it is difficult for sustainable entrepreneurs to establish pragmatic and moral legitimacy. Therefore, it is gravely important for researchers to come up with the measurement tool so that sustainable entrepreneurs can provide proof that their enterprise is socially and ecologically viable.

A new topic, hybrid organizing, emerges almost at the final process of the study. Despite the relevancy of hybrid organizing, it is not possible to have a detailed discussion on the subject. The main literature for hybrid organizing is written by Battilana and Lee (2014) and the authors has posed a number of questions that can be discussed using the findings of this study. Therefore, a separate study focusing on hybrid organizing based on Tri Mumpuni's experience is needed. Furthermore, another research can also be done based on Propositions 3a and 3b to find out whether the propositions are applicable in other hybrid organizations.

Another issue worthy for research is the reconnection of the local people with local resources, which I have developed an interest in. The reason for my interest is that this concept can improve the current practices of poverty alleviation and sustainable development in Indonesia and other developing countries. Moreover, I believe that sustainable entrepreneurs will play a great role if they know about the importance of and the opportunities resulting from reconnecting people with resources. Therefore, it is beneficial to conduct a research on the impact of such reconnection and subsequently investigate the most effective way for sustainable entrepreneurs to implement the reconnection.

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Appendix 1. Coding of Video Materials

Appendix 1.1 Open Coding of Video Materials

No	Keywords	6-Oct-14					9-Oct-14			10-Oct-14								14-Oct-14					
		1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	8	1	2	3	4	5	6
1	<i>Istiqamah</i>																						
2	Replication																						
3	Reconnect with resources																						
4	Sharing																						
5	High spirited																						
6	Media																						
7	Simplicity																						
8	Creative and innovative leader																						
9	<i>Blusukan</i> (impromptu Visit)																						
10	Social Capital																						
11	(Doing) without expecting anything in return																						
12	Happy																						
13	Passionate																						
14	Not only profit, but benefit																						
15	People's technology (user friendly, bring closer to the people, simple)																						
16	Empowerment																						
17	Commitment																						
18	Do for others																						
19	Being beneficial for others																						
20	To trigger village development																						
21	People's prosperity																						
22	Partnering with husband																						
23	Concrete																						
24	Bringing benefit																						
25	Unique model																						
26	Serious																						
27	Focused																						
28	Fail and stand up																						
29	Getting close to the people																						
30	Sincere																						
31	Knowing own potential																						
32	Track Record																						

No	Keywords	6-Oct-14					9-Oct-14			10-Oct-14								14-Oct-14					
		1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	8	1	2	3	4	5	6
33	Sided with the marginalized																						
34	Competent																						
35	Integrity (no corruption)																						
36	Hardwork																						
37	Being thankful																						
38	Empathy																						
39	Heart and logic																						
40	Local human resource																						
41	Ecological benefit																						
42	I am a woman, I can wait as long as I get what I want																						
43	Fight for policy change																						
44	Economic benefit/ development																						
45	Revenue																						
46	Used to appearing in public																						
47	Adjusting life																						
48	Public-Private Partnership																						
49	Social benefit																						
50	Social Development Plan/ fund																						
51	Social Business Principles and Paradigm																						
52	Social vs Commercial Business																						
53	Sustainability of the program																						
54	Community involvement																						
55	Capacity Building																						
56	Local capacity																						
57	local equity																						
58	Local wisdom																						
59	Right time																						
60	Community ownership																						
61	Need of the community																						
62	Talk to the community																						
63	Exit policy																						
64	Recognition																						
65	Local as producer																						
66	Local (renewable) resources																						
67	Local contribution																						

No	Keywords	6-Oct-14					9-Oct-14			10-Oct-14								14-Oct-14						
		1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	8	1	2	3	4	5	6	
68	Village consensus																							
69	Pro-poor																							
70	Community operate																							
71	Community maintain																							
72	Technical & Social preparation																							
73	Giving																							
74	Self supporting village																							
75	Agrarian development																							
76	Fair village development (has asset, income, educated HR)																							
77	Village as the new center of economy																							

(Note: The right side columns [6-Oct-14, 9-Oct-14, 10-Oct-14, 14-Oct-14] represented the location of video material)

Appendix 1.2. Grouping the Coding of Videos

		Keywords	Sub-keywords	6-Oct-14					9-Oct-14			10-Oct-14								14-Oct-14						
				1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	8	1	2	3	4	5	6	
SUSTAINABLE ENTREPRENEURSHIP																										
Opportunities	Inefficient firms																									
	Externalities																									
	Flawed pricing mechanism																									
	Information assymetry																									
	Public goods																									
	Monopoly power																									
	Inappropriate government intervention																									
The process perspectives	Recognizing social or ecological problem																									
	Recognizing social or ecological opportunities	resources																								
		Local human resources																								
	Developing double bottom line solution	Reconnect with resources																								
		People's technology																								
		Empowerment																								
		Local contribution																								
		Unique model																								
		Public Private Partnershià																								
		Pro-poor																								
		-- Technical & Social preparation																								
		-- Social Development Plan/ fund																								
	Developing triple bottom line solution	----- Community involvement																								
		Unique model																								
		Dekati masyarakat																								
		Local capacity																								
		Talk to the community																								
		Community maintain																								
		Community operate																								
		Local wisdom																								
	Need of the community																									
	Capacity Building																									
	Village consensus																									
	----- Local equity																									

Appendix 2. Interview Transcriptions

Appendix 2.1 Interview with Tri Mumpuni

- Carmel (C)** : Ibu, could you explain to me what is IBEKA? Just to start.
- Puni (P)** : IBEKA is a people centered business and economic institute.
- C** : What is the purpose of IBEKA actually?
- P** : Well, IBEKA is actually providing infrastructure like electricity in rural area. And the purpose is to develop economic activities in rural area.
- C** : How did the idea come to you?
- P** : The idea... Well, in the first place, actually my husband started. Because in 1998 there is a big movement in Indonesia. For the students, they cannot make any political activities anymore in the campus. Due to that situation, the students of ITB – Bandung Institute of Technology – decided to move the activities from the campus to the village area, but not talking about politics. Just trying to help the rural area by developing road in the village, providing clean water supply, giving energy or electricity by microhydro, by utilizing the local resources. So, this is the idea of why the students doesn't want to create more problem in the campus but they are developing the villages in rural area. That is the reason why. But then IBEKA actually formed in 1993, 17th August.
- C** : During the independence day.
- P** : Yea, long before that. It started from the student's activities by implementing appropriate technology. When I was interested in joining IBEKA, it's where I saw there was abundance of so many resources in rural area that can be a very important tools to develop the economic activities. Of the community in the villages.
- C** : And you were, uhm, the one that built the company at first, IBEKA at first, was your husband, as I know, Pak Iskandar.
- P** : It's not a company. It's a non-government organization.
- C** : Alright. It's a non-profit then?
- P** : Non-profit.
- C** : And then you joined the organization with your husband then? What was your role in the organization?
- P** : As an executive director. And our activities move from this non-profit organization to social enterprises.

- C** Alright. What is the difference actually between non-profit and social enterprise?
- P** When we in the non-profit sector, we only helping the local community. Just hugging them to provide what is necessary activities that could support their economic development through implementation of appropriate technology. By providing electricity, sustainable energy. Providing clean water supply, you know. But then in the social enterprises we starting to think that the local people in rural area actually has a resources. And its resources can be developed to create economic. While doing that activities, IBEKA also chip in some fund. It means that we are doing businesses together with the local community. We called this business is a business beyond profit and money by looking for more benefit. It means that we also get a profit, but our profit is actually more on, instead of having a profit, we are looking for more on the benefit that the rural community can benefit from that.
- C** Okay. So the investment is going back to the community then?
- P** Exactly.
- C** But was money really important in the enterprise? To get a return?
- P** No. That's the differences between the commercial investment and the social investment. In the social investment you looking more on how this investment can create impact. Positive impact in the community and we want to create as much as possible that can improve the welfare of the local people. But in the commercial, of course, in the commercial activities what we look is return on investment. They want the money to, you know, to get back the money that.. The numbers they are using MPC, IRR. But in social enterprises we don't look at that.
- C** But was it difficult for you at first to get the financial support from donor organizations or from other people?
- P** No, No. I think we are so lucky that what we do in the first place is using personal investment just to create the first practice. To show people that what we do is really creating benefit in the local level. Once you succeeded then suddenly without any confusion many people come and see that, you know, they want to contribute to this investment.
- C** So at first you use your own capital? From you, yourself, and your husband's?
- P** Yes, exactly.

- C** Okay. Was it a lot of money actually for the first project?
- P** Well, not that much so. But maybe, it's relatively. People have a different opinion on how much is that because, you know, the level of how much, is compared to, you know, it's really comparable to the result. It's very hard to determine whether the money is a lot of money or small money. It depends. I could say between ten to one hundred thousand US dollars that is initial activities that we started a long time ago.
- C** Okay. And who was the first external investors?
- P** It's the Japanese fund. The government of Japan.
- C** Was it JICA or was it a different one?
- P** The Embassy of Japan. From Grassroot Grant Aid.
- C** How did they find you? Did they come to you or you come to them first?
- P** No, they came because they thought that we have a good project so they came. And they are offering us support.
- C** And then after the Japanese then you get more funds from other organizations?
- P** Ya from national organizations and even from private.
- C** And they mostly come to you?
- P** Ya.
- C** And they just say that I want to invest on this project.
- P** Ya. I want to support your activities. It's like Korean company, Japanese company, you know, and then national company. Well..
- C** What do you think that they saw in the project that they are really interested in investing?
- P** The impact. They know exactly that the impact is really giving a benefit for rural people. Real sustainable and creating a trust reliance on the community.
- C** Was it difficult for you to connect with them? Do you need a lot of convincing to get the fund or it's just, they just see it and then they just give it?
- P** No. What we came is that we show them the proof. People is need,

you know, in a situation where there are so many unsustainable project. People are looking for something that are really sustainable. And which is the proof that what we do is sustainable. So that's why without any further, you know, conviction the evidence itself. But for me the very important thing is to have a very good track record.

C Well, you have already built 60 microhydro plants so far.

P 82.

C 82? Wow! Is it all over Java or have you reached the..

P No. All over Indonesia. And we did one in Phillipines.

C Oh, in Phillipines? Okay. And how did you get involved in the Phillipines? They asked you to help or?

P No. The Japanese government, actually from JICA. The Japanese International Cooperative Agency, as an expert and this expert was contacting us. They want us to replicate what we have in Indonesia and is becoming successful, they want to replicate it to the Phillipine country.

C Okay. But with a lot of donor organizations investing in your projects and with your mission, were there any contradicting goals? Did they ever tell you to do other things that you don't like?

P No, we have our own rules. Whenever it comes to other organizations it has to be compatible with our value and our rules. So if it's not we have to say sorry that we cannot proceed. Luckily that most of them are understand very well.

C Okay. But what were the things that they usually ask you to change? Were there any things?

P No, so far never heard that because before we ask something, in the first time we meet, we already give very clear picture of what we are and what we are doing, who we are and what kind of activities that we want to collaborate. They know exactly. And we have the value is very crystal clear that, you know, the value is mostly giving most benefit to the local community, no hanky panky business, no give back, nothing like that. That's why we cannot work with the government.

C Okay, so working with the Indonesian government is more difficult than working with the foreign donors you think?

P Yea, because the fiscal system is different.

- C** Okay. The government want more involvement or what do you think?
- P** No, no, it's the system itself. If I were working with the overseas government we only need to discuss on certain substantial issue that we would like to carry on in the project. Once there is a discussion and understand, uhm, have a common understanding from those parties, the moment we agree I will transfer you as an example 500,000 US Dollar for this project because we know all this project can be proceed and how much money is needed. It's just like that. Once I signed agreement they will send the money exactly in the same amount.
- C** And how does IBEKA survive then with the, because the donor gave you the amount of money needed for the project, for the microhydro, but how do IBEKA as an organization survive financially?
- P** Usually they only come to fund the program, not to fund our organization. Then, so, what we do is that they only want to work with us because we can show and convince them that the money can be used only for the program. Not for the overhead. And luckily we have our resource of funding, you know, we have consultation, you know, consultancy activities. We give a training. We have a guesthouse that we then rented to other people. And other kinds of activities that can actually support our, what you call it, overhead. So that's why mostly of the program come just to fund the project. But then sometimes there are very few donor that also give us what you call it [17:54] fee. Around 8 percent.
- C** Because your main objective is not to get some money for your own organization but for the community itself.
- P** Yea, that's what I always, uh, people understood that money given to us is not for our organization. It is basically you have the poor. You funded the program that will benefit the poor.
- C** Okay. And was the consultation very famous right now at IBEKA? Do people go to you for the consultation as well?
- P** Yea, exactly. And for the training.
- C** What kind of training again that you provide?
- P** It's a training about how to be a good social enterprises. But mostly the training is on the technology aspect. How we can develop microhydro properly. There's people who doesn't know microhydro. And we have been in collaboration with the ministry of foreign affairs in Indonesia. We have been conducting training for the Asia Pacific country and Africa sometimes. Just to show them how important is renewable energy and [19:25] . Very significant for the

rural development.

C With the Ministry of Foreign Affairs of Indonesia, was it the technical cooperation?

P Under the South-South Cooperation. The head is TCDC. Africa cooperation, more developing countries. TCDC.

C And, who would you say the most important partners of IBEKA?

P Oh, it's very hard to say now, but mostly from Japan. That's the highest priority from Japan. From university to do some research, joined research. And also from the --- and from the government. The private also supporting with a lot of fund.

C Okay. For the universities, do they provide people?

P No, they're mostly on providing us to be a guest speaker in the university and also collaboration of implementing technology that would benefit the poor.

C Okay. Have you ever been given any talks in foreign universities outside of Indonesia?

P Oh my God. Many. First in Auburn University in US in 2009. And also Ohio University. You know both of them in 2009. In 2010 in MIT and Cornell. Sorry, in 2005 in Osaka. In 2005 and 2010 in Osaka. And then in 2010 as I told you in MIT and Cornell. And then in 2011 back in Cornell, in Brisbane, and also in Upen – University of Pennsylvania. And then in Stanford. And also in Tokyo University for twice in 2011 and 2014.

C What were they mostly interested in?

P It depends. Some of them more important is engineering for rural development. And most of them renewable energy for rural development. Some of them want the renewable energy and environmental issues. And, nowadays it changes. Nowadays, they talking about like the one we just get through in graduate school for international development in Osaka, we are talking about wellbeing as a human.

C So it's more about the people.

P More about the people and also about social enterprises as well.

C Well, we need to have you talking with us in Nordic then because you haven't visited the Nordic yet?

P Yea, but once I think in Cambridge back last year.

- C** Okay, last year in Cambridge.
- C** And, maybe one last question before we end for this part. Did you, what makes people really-really interested in your cause. Do you think that you break any conventions?
- P** I think so. Because we are always creating a breakthrough. It is important in a society where everything is really based on money, commercial aspects, and what the benefit that we can taking, you know, that can come from the society instead of giving what we have to the society. It's a very important how to spread the value that as a human being we have to give more. The more you give, the more you get. We have to convince people to do that. Meaning that if many people are having the same thought, going to the same direction, I think it's very easy to alleviate poverty. And, to eliminate the injustice that is really spread in our world. The world now. Especially in rural people, you know long time ago that is a crystal clear that if we want to alleviate the poverty we have to make sure that local resources could give benefit to the local people. What I believe is that poverty occur due to the restriction between the local people and the local resources. If we can people make, you know the local community and local resources, I'm sure that it's not so difficult to create, you know, welfare among the villagers. I'm focusing really on the development.
- C** Yes, I mean a lot of people like myself, for example, we really want to alleviate poverty, because just looking at Indonesia that poverty is everywhere and we want to do something. But oftentimes we think that we need a lot of money to do it, a lot of time, and then..
- P** No. That is wrong. The poverty in Indonesia is mainly caused by the government policy and system. I give you a very clear example. We have a very unfair asset distribution. I don't understand why people in Kalimantan and some places outside Java, indigenous people, who live very happily in a sustainable way and self reliance, they are very close to their nature, suddenly the government decided to give a permit for the private, you know, to take over their land. Even in a very rude way. I have so many evidence, evidence in Kalimantan. I have so many evidence. People in Dayak, they go up in the morning suddenly their forest is gone. They were so surprised. Why? Because the private just tell them, look, I have a convention, you said that you own this land, do you have any letter? Of course not. Indigenous people never use the letter because you have convention. They know each other then they live, their lives depends on the nature for a long long time, from their great grand ancestor, you know. But suddenly SBY decided, you know, to create a lot of palm oil estate. But actually the owner not only Indonesian, but mostly come from Malaysia, from overseas. He actually confiscated the land that is possessed by the local community.

- C** So, it's all about the policy then? It need to be changed.
- P** Ya! Definitely. Definitely. It's really unfair policy that has been going on. When you said that, oh it's a lot of money, of course we need some money, but if you compare with the resources being taken away, it's nothing. See how many people are getting rich? You know, exactly industry. And usually the non-Indonesian. And mostly they taken over that land that owns, you know, belongs to the local people.
- C** What would you say to aspiring social enterprises that wants to work in Indonesia? Because the government don't really care, maybe. Hopefully the new government will.
- P** In my opinion is that if young people, if you are interested in social businesses, we can create a very good system or scheme with the strong value of giving benefit to the local people then we start talking with the local community. So we will know exactly that the they actually have their own resources. What we need to do is just facilitating them. Even give them a loan, a very soft loan. So you know that most of the private you think they are using their own money? No. They operating money from the bank. The bank so trust to them that to give a lot more money than they actually come back to what they needed. But when local community who owns the resources, they don't believe it. They don't have care to give access to the policy, access to the information, access to the fund. So they become poor. Since they become poor they easily give away their land. Then it's actually the only means of life, means of production, for them to survive. But since they can do nothing then they become very poor and they are starving.
- C** So we have to work with the people instead of working with the government then?
- P** Ya. Ya. The government actually only need to give endorsement and give **[31:13]** As far as I learned the Indonesian government love to create a project. Project for bureaucrat is money. The project is only tools or means to improve their own --- of the people.
- C** Yes, because a lot of the projects are actually in the PU, right? And with their green book, blue book.
- P** Not only PU, you know, the ministry of energy, the ministry of transmigration, the ministry of, ahh I don't know, many. Even the **[31:57]**. They all thinking is only project, it means money, it means get back, it means having hanky panky business.
- C** But it is allowed for foreign investors to go directly to an individual or an organization? Not going through the PU.

- P** Of course! If they want to. I've been doing a lot, you know. But then we still have to make a policy that, even we, I always involve local community so actually the permit is from the local community, we only facilitating them. We stand behind them.
- C** Alright. This is really interesting, Bu Puni, because in the past I was working in a World Bank project with the Ministry of Home Affairs. And from there I learned that everything has to go into the green book, the blue book, and it has to go to the central government. So, I didn't know that it's possible for donor organizations to go directly to an individual. Like you, for example. So, it's a good news.
- P** But I always tell my foreign partners, if you want to work just go directly. If you want to follow the Indonesian government system, please be free, but I cannot fulfill their requirement. The Ministry of Home Affairs is also the most corrupted ministry in my opinion. But using the solution, they always speaking the money so much, and I said, sorry, we cannot give you the money. But my staff, some of the young engineers were too stated. I give you great example. We got very big fund in terms of renewable technology from Japan. But they're asking for the endorsement. The Ministry of Home Affairs is asking the money. I know the name of the guy. I was thinking that once Jokowi in a place and confirmed, I will discuss everything with him and tell him how crooked they are. This practices has been going on for long long time
- C** Do you think that you want to be involved in the government now that Jokowi is President?
- P** I don't know. I just happy that I can talk to him, I can send concept. More than happy.
- C** Uhum, because I read somewhere that some people want you to be the Minister of PU.
- P** Oh, no, you see. It's not my capability.
- C** But I think that we need people like you, Bu Puni, because you think more about the people not more about your pocket. So, it's very rare.
- P** I suppose to, you know, to inspire more young generation to think --- I'm sure that we can be the big and powerful country if people are thinking about how they can contribute to other people.
- C** Well, I am one of the people that is very inspired by you, Bu Puni.
- P** Thank you, Carmel.
- C** So, I think we end the interview of part one now. Terima kasih

banyak, Bu.

Appendix 2.2 Interview with Mr. EG

Carmel (C) : Bapak waktu itu ketemu dengan Bu Puni, bagaimana ceritanya Pak?

Mr. EG (EG) : Bu Puni itu memang seorang yang, seorang pejuang wanita yang ingin sekali memperbaiki tingkat kehidupan masyarakat kecil. Khususnya bagaimana melibatkan wanita dalam pembangunan. Dia sudah mulai dari dulu. Nah, kebetulan kan waktu itu saya di Kerjasama Teknik, Direktorat Kerjasama Teknik, Direktorat Jendral Informasi dan Diplomasi Publik. Memang salah satu tugas dari Kerjasama Teknik adalah bagaimana kita bisa membantu negara-negara lain yang masih belum berkembang seperti Indonesia. Memberikan bantuan kepada negara-negara lain karena kita juga dulu sebelumnya adalah penerima bantuan Kerjasama Teknik dari negara-negara lain, dari Korea, dari Jepang, dari Australia, dari New Zealand. Sekarang kita sudah lebih baik, kita ingin membantu negara lain juga. Kemudian kita cari apa yang kira-kira kita bisa bantu, negara mana dan kira-kira apa yang mereka butuhkan. Jadi tentu kita harus tahu apa kebutuhan orang lain dan apa kelebihan kita. Waktu itu Bu Puni ini sedang namanya, sedang, sudah mulai dikenal karena dia terlibat khususnya dalam program microhydro. Jadi bagaimana supaya rakyat di kampung itu bisa menikmati listrik karena memang masih banyak daerah-daerah yang belum menikmati listrik walaupun sudah listrik sudah masuk tapi jumlahnya sangat terbatas, tidak mencukupi. Dan cukup mahal untuk rakyat. Nah Bu Puni ini menemukan, satu cara bagaimana memanfaatkan sungai-sungai kecil yang ada di kampung-kampung untuk menjadikan tenaga, sumber tenaga listrik. Dan ini di beberapa tempat berhasil. Kita kemudian cari Bu Puni dan akhirnya ketemu. Ketemu, ngobrol ngobrol ngobrol, dan kelihatannya kok bisa kita manfaatkan ini kemampuan Bu Puni untuk juga kita sampaikan, kita apa, penemuan ini juga bisa diterapkan di negara-negara lain yang memang kemungkinan akan membutuhkan. Begitu kira-kira kita ketemunya.

C : Yang pertama kali kenal, tahu, atau pernah dengar Bu Puni itu siapa, Pak?

EG : Maaf saya tidak dengar.

C : Yang pertama kali tahu tentang pekerjaan Bu Puni gitu siapa, Pak?

EG : Ya kita tim ya. Kerjasama Teknik ada direktornya, waktu itu direktornya Ibu Esti Handayani, kemudian saya sendiri, terus ada Pak Firdaus. Kita ada tim lah, yang memang kita mencari apa yang kira-kira kita bisa salurkan beri bantuan ke negara-negara tetangga kita gitu. Jadi

ya tanya sana, tanya sini, akhirnya ketemu. Loh ini keliatannya kok bagus. Ketemunya begitu aja. Baru setelah ketemu, kita coba tukar pikiran, kita sampaikan ide-ide kita, kemudian Bu Puni menanggapi dengan gagasan-gagasan dia. Itu awalnya.

C : Dia orangnya bagaimana, Pak, sewaktu pertama kali ketemu? Apa impression Bapak?

EG : Bu Puni ini kalau kita ketemu pertama sekali kita tidak menyangka kalau dia itu sehebat prestasi yang dia capai. Orangnya sangat sederhana, orangnya tidak menunjukkan bahwa dia orang yang sudah dikenal. Dia sangat merendah, sangat open, sangat terbuka untuk kita bertukar pikiran, mau mendengarkan ide-ide kita, mau menjawab pertanyaan-pertanyaan dasar yang mungkin bagi dia sudah cukup membosankan untuk dijawab. Tapi dia dengan senang hati memberi penjelasan karena memang itulah kerja dia. Dia kan memberikan penjelasan kepada orang-orang di kampung yang mungkin tidak paham teknologi. Yang tidak mengerti, bahkan mungkin mereka pun tidak mengerti kebutuhan mereka sendiri. Bu Puni ini sudah terbiasa menghadapi orang-orang seperti itu sehingga dia sangat helpful ketika kita tukar pikiran juga dia sangat mencoba untuk menjelaskan apa yang kira-kira kita ingin tahu, gitu. Orangnya sangat baik, sangat terbuka, dan orangnya sangat pintar.

C : Jadi setelah pertemuan pertama itu langsung percaya dengan kemampuan dia gitu, Pak?

EG : Iya. Karena memang kita sebelumnya juga sudah nyari. Kita sudah tahu apa gebrakan-gebrakan dia, di mana dia sudah berhasil, di daerah-daerah mana saja dia programnya itu sudah jalan, gitu. Kemudian ketika ketemu, ya lebih terkonfirmasi bahwa benar. Apa yang dilakukan itu ternyata benar, dari uraian-uraian dia, kemudian kita meninjau ke daerah-daerah di mana programnya itu, proyeknya itu dijalankan. Kita lihat sendiri bagaimana dia dekat dengan masyarakat. Bagaimana dia langsung turun tangan. Jadi ya kita semakin yakin ya ini memang benar. Baru kemudian setelah itu ya kita semakin yakin ketika dia juga dalam acara apa gitu di Amerika ya, sampai Obama memberikan ucapan selamat khusus kepada Bu Puni atas karya-karya dia membantu masyarakat di perkampungannya untuk meningkatkan ekonominya, meningkatkan kesejahteraannya. Kita semakin yakin dan ternyata bantuan-bantuan yang kita sampaikan ke beberapa negara itu juga ternyata mereka butuh sekali dan bisa diterapkan, gitu. Apa yang dilakukan oleh Bu Puni adalah sesuatu yang memang secara nyata dibutuhkan oleh masyarakat. Dan semua apa yang dibutuhkan itu ada di sekeliling masyarakat, hanya mereka tidak tahu bagaimana menggunakannya. Dan sebenarnya masyarakat pun bisa mengelola, tapi selama ini kan tidak tahu. Bahwa perlu ada manajemen, dengan manajemen yang sangat sederhana pun bisa dilakukan. Masyarakat selama ini tidak tahu. Jadi apa yang dilakukan Bu Puni menyadarkan masyarakat bahwa sebenarnya mereka bisa. Mereka bisa membangun

daerah mereka sendiri, mereka bisa meningkatkan kesejahteraan, pembangunan ekonominya. Jadi tidak hanya teknologi itu jalan tapi keyakinan masyarakat akan kemampuan dirinya pun jadi tumbuh.

- C** : Itu tahun berapa ya, Pak? Kira-kira.
- EG** : Itu kira-kira tahun, berkisar, kami kerjasama 2006 sampai 2010/2011.
- C** : Okay. Berarti sudah ke beberapa negara?
- EG** : Kenapa?
- C** : Sudah ke beberapa negara gitu ya, Pak?
- EG** : Ya, karena memang tujuan negara-negara yang kita bantu itu adalah negara-negara yang less developed compared to Indonesia ya, jadi ada namanya CLMV. Cambodia, Laos, Myanmar dan Vietnam. Itu prioritas kita karena memang ada komitmen negara-negara ASEAN bagaimana supaya empat negara yang belakangan baru bergabung dengan ASEAN ini bisa mengejar ketertinggalan mereka dari negara-negara yang lain. Itu ada komitmen. Karena itu kita prioritaskan untuk CLMV. Plus kemudian kita tambahkna P, P-nya itu diluar ASEAN, itu PNG. Selama itu kita juga ke negara-negara lain terutama di Pasifik, seperti Vanuatu, Fiji, Salomon Island. Ada beberapa negara yang sudah kita kerjasamakan, kita terapkan apa yang ditemukan oleh Bu Puni.
- C** : Tapi yang waktu itu Bu Puni ke sana untuk kasih training atau untuk membangun juga, Pak?
- EG** : Tidak semuanya Bu Puni yang berangkat karena Bu Puni, dia sudah berkembang kemudian dia punya tim. Ada beberapa. Kebanyakan justru timnya, tapi tim ini ke sana untuk melihat tentu potensi, potensi- potensi apa saja. Kemudian, lebih kepada TOT. TOT itu Training for Trainers. Jadi mereka nanti dilatih, karena kalau nanti semua dilatih ngga mungkin, waktunya tidak cukup, biaya besar, jadi hanya ada percontohan kemudian mereka datang dari beberapa daerah, mereka ditrain, mereka diberitahu teknologinya, mereka diberitahu bagaimana manajemennya. Kemudian nanti mereka menerapkan sendiri di kampung-kampung mereka, gitu. Jadi memang tidak semua ke daerah-daerah. Kita taruh di satu tempat tapi kita harapkan mereka, peserta-peserta ini, akan mengembangkan di daerah masing-masing.
- C** : Mereka ada pergi ke yang di Cinta Mekar itu, Pak? Yang fasilitas yang Bu Puni itu punya?
- EG** : Jadi begini, ada dua. Satu, kita datang ke negara-negara yang akan kita bantu dengan membawa teknologi yang ingin kita pergunakan. Kedua, ada lagi mereka yang datang. Peserta-peserta dari beberapa negara datang ke Indonesia. Kalo itu memang langsung, kita mengunjungi proyek-proyek Bu Puni yang kita anggap sudah bisa kita tunjukkan.

Karena Bu Puni mempunyai satu daerah, apa namanya tadi?

C : Cinta Mekar.

EG : Cinta Mekar. Jadi itu satu daerah di mana kampung itu sudah sangat mandiri. Dan di situ bagaimana mereka dilatih manajemennya, bagaimana pengelolaannya, siapa yang bertanggungjawab untuk buka-tutup misalnya aliran sungai, siapa yang bertanggungjawab untuk mengurus generator mesinnya. Kemudian bagaimana air itu selain digunakan untuk tenaga listrik, ketika dia dibendung pun bisa untuk irigasi. Nah kemudian kampung itu sudah mulai punya listrik sendiri, bagaimana mereka manajemennya, bagaimana kerjasama dengan PLN. Itu diajarkan semua. Bisa tinggal berapa minggu, bisa bulan di situ, sampai nanti peserta ini kita anggap sudah mampu, ya mereka kembali ke negaranya masing-masih, nah menerapkannya di sana.

C : Ok. Kerjasamanya masih berlanjut ngga sih, Pak?

EG : Masih berlanjut, tapi memang kita kan banyak. Salah satu adalah hydro, microhydro, itu salah satu. Jadi memang kemudian kita banyak juga menunggu. Setelah itu berkembang ada negara-negara yang minta. Kita tetap menawarkan bekerjasama bantuan-bantuan teknik, tapi tergantung kebutuhan. Kalau ada permintaan misalnya dari Timor Leste karena di sana cukup berhasil, mereka minta, mereka mengirimkan lagi orangnya, kita latih lagi. Dan itu tetap masih berlangsung sampai sekarang.

C : Kalau hubungan antara Bu Puni dan Pak Iskandar, suaminya, Pak. Itu kan sebenarnya Pak Iskandar yang engineer-nya, tenaga ahlinya. Tapi kenapa menurut Bapak Bu Puni yang menonjol?

EG : Ya mungkin ya, Bu Puni jadi sebagai apa ya? Sales juga sebagai public relations. Ya kemudian dia yang lebih dikenal. Ide-idenya. Karena memang engineer-nya itu Pak Iskandar tapi ide-idenya itu lebih ke Bu Puni kalau menurut saya. Bu Puni punya ide begini, kemudian dia tanya Pak Iskandar apakah itu secara teknis, secara ilmiah, itu bisa diterapkan apa ngga. Kemudian Pak Iskandar itu bekerja, mengerjakan. Tapi ide-ide itu sepertinya datangnya dari Bu Puni. Dan, biasa kalau seorangilmuwan seperti Pak Iskandar itu, gagasan-gagasan dia itu, dia sulit mengkomunikasikannya kepada orang lain. Nah di sini kemampuan Bu Puni mengkomunikasikannya kepada orang-orang yang membutuhkan. Karena seperti yang tadi saya bilang, karena di kampung itu they don't even know what their needs are. Mereka hanya hidup aja. Kadang-kadang mereka tidak sadar kalau sebenarnya mereka butuh listrik. Tapi karena sudah kehidupan keseharian memang tanpa listrik, ya mereka tidak sadar bahwa mereka sebenarnya butuh. Tapi ketika listrik itu sudah ada, baru mereka berpikir, iya ya, kenapa selama ini kita tida bikin ya? Ide ini mungkin ada di Pak Iskandar, tapi kalau Pak Iskandar yang menjelaskan ke kampung, ke daerah-daerah, orang apa ya? Mungkin terlalu ilmiah, ngga bisa nangkap. Nah Bu Puni menterjemahkannya ke bahasa yang sangat sederhana. Bu Puni

menterjemahkannya ke bahasa kebutuhan. Sehingga orang langsung mau, gitu. Bagaimana membuat rakyat itu berpartisipasi itu kan juga tidak mudah. Umumnya rakyat di daerah-daerah tertentu secara, apa, kalau dibandingkan dengan rakyat kota itu relatively pendidikannya kan juga lebih rendah, otomatis kesadarannya akan pembangunan ekonomi juga tidak setinggi orang di kota. Berkomunikasi dengan mereka tidak mudah. Bu Puni sepertinya di sini mampu mengkomunikasikan itu. Sehingga rakyat mau berpartisipasi. Karena tanpa partisipasi rakyat, program-program yang dibuat Bu Puni ini ngga akan berhasil. Karena ini betul-betul dari rakyat untuk rakyat.

C : Tapi selain itu Bu Puni juga bisa berkmunikasi dengan orang-orang kota, bahkan yang orang luar negri, berpendidikan tinggi pun dia bisa berkomunikasi juga ya.

EG : Ya. Jadi prosesnya begitu. Setelah dia dikenal, kemudian programnya di mana-mana jalan, orang melihat. Kemudian dunia internasional melihat. Dia diminta untuk bicara di mana-mana untuk menjelaskan ide-ide itu. Bagaimana ide-ide itu bisa diterapkan, bisa diterima oleh masyarakat, bagaimana ide-ide itu berkembang, dan tidak hanya berhenti sampai di situ, bahwa nanti setelah itu apa yang akan terjadi. Tentu kan, katakanlah selama ini tidak ada listrik, ini tujuannya tidak hanya berhenti pada listrik. Ada listrik artinya apa? Ada listrik artinya masyarakat itu bisa melakukan kegiatan ekonomi yang lain. Kalau tadinya dia produktifitasnya tanpa listrik hanya X mungkin dengan adanya listrik menjadi 2X. Kemudian lebih dari itu Bu Puni berpikir kerjasama dengan PLN, misalnya. Hasil yang misalnya dihasilkan dari microhydro itu, saya ngga begitu familiar dengan istilah-istilah, katakanlah misalnya 20X listrik, kemudian yang dibutuhkan oleh rakyat sebenarnya hanya 10. Yang 10 lagi itu bisa dijual ke PLN untuk disalurkan ke daerah lain. Tetapi yang 10 digunakan oleh rakyat ini pun tidak diperoleh secara gratis oleh rakyat. Tapi diperoleh secara lebih murah. Uangnya ini dikumpulkan kembali kepada kesejahteraan rakyat. Untuk apa? Untuk pendidikan yang gratis, untuk rumah sakit yang gratis, sehingga rakya semakin sehat, rakyat semakin terdidik. Akibatnya apa? Pembangunan ekonomi menjadi lebih bagus. Jadi itu apa efeknya ke mana-mana. Itu yang Bu Puni mampu melihat ke sejauh itu dan menjelaskannya ke rakyat dan rakyat bisa memahami. Ini dianggap suatu hal yang luar biasa karena di negara-negara berkembang, di Asia Tenggara, di Pasifik, di Asia Selatan, umumnya masih sangat membutuhkan teknologi yang simpel seperti itu. Jadi kita tidak bicara soal listrik dengan kekuatang yang luar biasa besar, tapi betul-betul sesuai dengan kebutuhan rakyat dan kemampuan rakyat itu untuk mengelolanya.

C : Kalau dari karakter Bu Puni sendiri, apa yang menurut Bapak membuat dia bisa begitu berhasil?

EG : Dia sangat orang yang sangat optimis. Dia sangat percaya diri, dia percaya dirinya kuat sekali. Dia sangat optimis dengan semua yang dia

lakukan. Dan dia sangat convincing. Dia bisa meyakinkan orang, gitu. Dan gaya dia, dengan kesederhanaan dia, dia bukan orang yang datang dengan satu teori yang muluk-muluk terus menunjukkan diri bahwa dia sudah well-known, tidak. Dia datang dengan kesederhanaannya tapi dengan ide-ide yang memang menurut saya ide-idenya itu murni dari dia dan bisa kita pahami dengan mudah. Dia tidak membuat sesuatu yang sederhana itu menjadi sulit, tetapi berusaha menjelaskan sesuatu yang sulit itu dengan bahasa yang sederhana. Kemudian gampang dia diterima oleh orang dari semua kalangan. Dan mungkin pada awalnya pemerintah agak sedikit belum tahu apa kira-kira hasil, apa berhasil nanti kerjanya Bu Puni, tapi akhirnya pemerintah juga melihat loh ternyata banyak sekali yang berhasil. Dan dalam berkembang memang begitu kalau satu berhasil, dari mulut ke mulut orang terus. Setelah itu, setelah ada kepercayaan mudah sekali untuk berkembang. Yang susah membangun kepercayaan. Puni itu berhasil membangun kepercayaan kemudian dia eksis. Setelah dia eksis ya lebih mudah lagi karena orang tau Bu Puni. Semua orang tahu, oh Bu Puni pasti bagus. Dan ada satu komitmen dia, itu yang membuat dia menurut saya berhasil. Dia selalu komit dengan apa yang dia mulai, dia sangat komit. Dia terjun sendiri ke lapangan, dia kerjakan, di terobos. Kalau ada aturan-aturan yang, ada birokrasi yang sulit ditembus dia mencoba mengerjakan sendiri. Dan juga itu tadi kalau yang saya ketahui, dia sangat kompak gitu dengan Pak Iskandar, suaminya, mereka saling mendukung. Itu juga suatu faktor karena kemudian mereka saling memahami, ke mana-mana bisa sama. Karena pandangan mereka sama.

C : Tapi Bu Puni pernah cerita ngga, Pak, tentang challenges yang dia pernah hadapi, gitu.

EG : Pernah, pernah. Challengesnya ya itu tadi yang saya pernah dengar itu challengesnya sulit meyakinkan orang di daerah. Sulit meyakinkan. Bahwa dia ini bisa. Sulit meyakinkan bahwa mereka butuh. Kalau di daerah itu mereka sudah puas dengan keadaan yang ada. Ya kami sudah senang kok dengan yang seperti ini. Kenapa harus repot-repot lagi sih? Kami sudah senang. Karena itu tadi mereka pun tidak tahu ada kebutuhan mereka. Bahwa ini dilakukan, banyak sekali kebutuhan mereka yang mereka tidak sadari. Itu satu. Kedua tentu, birokrasi. Aturan-aturan, saya tidak tahu terllau detail, tetapi misalnya ada aturan dulu, katanya sudah berubah sekarang, bahwa listrik itu hanya boleh dikelola oleh PLN. Jadi walaupun rakyat di situ bisa menghasilkan tenaga listrik, dia tidak bisa menggunakan dengan seenaknya begitu saja. Aturan mengatakan bahwa dia harus menjual ke PLN. Kemudian PLN nanti yang akan menjual kepada rakyat. Nah kalau begitu, dengan harga yang ditentukan oleh PLN, belum tentu rakyat bisa membeli. Bagaimana mendobrak aturan-aturan ini? Itu juga ada kesulitan, belum lagi pimpinan-pimpinan daerah yang mungkin juga ngga begitu paham. Nah itu kesulitan-kesulitan yang dihadapi.

C : Tapi kalau masalah uang ngga pernah ya, Pak?

- EG** : Kenapa?
- C** : Kalau masalah uang ngga pernah?
- EG** : Masalah uang ngga pernah dia cerita, tapi apa yang dia bilang bahwa yang dia lakukan itu semuanya pada awalnya biayanya biaya rendah. Jaid dia, Bu Puni ini, tidak berani juga misalnya pertaruhkan biaya yang terlalu besar. Dalam arti ada kampung yang mau tapi sumber airnya jauh, untuk mengalirkan itu kan butuh biaya, itu biasanya dia tidak mau ambil resiko itu. Jadi ya mulailah dengan daerah-daerah yang memang dialiri oleh sungai itu. Jadi sumber dayanya sudah ada di situ. Tinggal pengelolaannya, sehingga hanya butuh biaya bagaimana membuat supaya tidak terjadi serapan air terlalu besar, bagaimana supaya saluran air itu lebih dicuramkan supaya tenaga arusnya menjadi lebih deras dan bisa digunakan untuk listrik. Nah untuk itu kan biaya tidak terlalu besar. Kalau misalnya daerahnya tidak dialiri sungai kemudian harus mengambil air di daerah lain, nanti ada konflik kepentingan, tidak mau sungainya dialirkan dibelokkan ke mereka. Kalau itu sulit. Dan biayanya tentu akan besar, tapi Bu Puni tidak pernah cerita secara khusus. Tapi sepertinya dia banyak dapat bantuan dari negara-negara ke tiga. Karena kita juga ada yang namanya triangular cooperation, artinya kita punya kemampuan untuk membangun suatu, punya teknologi. Kita bantu sampaikan ke negara-negara yang less developed. Misalnya seperti ini, microhydro. Tapi, katakanlah Timor Leste membutuhkan, kita kan juga masih dalam tahap pembangunan negara berkembang juga. Kita ngga punya uang, tapi kita tenaga, kita punya teknologi. Jepang punya uang, tapi mungkin teknologi Jepang itu sudah terlalu tinggi dan biayanya terlalu besar, kalau teknologinya tinggi tentunya biayanya besar, untuk diterapkan di kampung yang sebenarnya belum membutuhkan teknologi setinggi itu. Nah kita bekerjasama dengan Jepang. Bagaimana, Jepang mau teknologinya dari kami, orangnya dari kami, tapi yang biayain Jepang. Nah, Jepang kan tujuannya bagaimana membantu negara-negara yang membutuhkan. Tapi kita juga tujuannya sama. Ya udah kita kerjasama dengan Jepang membantu negara-negara ini. Kita juga kerjasama dengan Korea, dengan negara-negara lain, gitu. Itu namanya Triangular Cooperation. Sepertinya Bu Puni juga memanfaatkan ini. Ada dari beberapa sumber. Kalau saya tidak salah ingat pernah dia sebut bahwa dia juga memanfaatkan sumber-sumber anggaran seperti itu.
- C** : Kalau yang programnya KST itu dibiayai sepenuhnya dari Deplu ya, Pak, Kemlu?
- EG** : Kemlu punya anggaran yang sangat terbatas. Jadi kita punya program, pada awalnya memang, kan KST itu baru berdiri tahun 2006. Jadi pada awalnya ya kita sendiri, anggaran dari Kemlu. Nah baru kemudian kita baru mencoba merangkul instansi lain yang punya program yang sama. Kita kerjasama dengan instansi Kementerian Pertanian karena mereka punya tenaga ahli, kemudian kita minta semua daftar nama tenaga ahlinya siapa, kita kerjasama dengan Departemen Perindustrian, kita

kerjasama dengan Departemen PU, kerjasama dengan banyak kementerian lain kita kerjasama. Kemudian kalau ada permintaan, kita kirim mereka. Ada dua. Apakah tenaga ahli kita kita kirim ke luar negeri atau kita menyelenggarakan, kita minta kunjungan dari kementerian-kementerian yang memang sesuai dengan bidangnya. Jadi biayanya ya kita sharing.

- C** : Tapi sepenuhnya dari Pemerintah Indonesia?
- EG** : Dari pemerintah, sepenuhnya dari pemerintah.
- C** : Okay. Pak. Terima kasih.
- EG** : Kamu cari lagi kalau nanti misalnya ada, apa lagi yang kira-kira mau ditanya, kita bisa lagi lanjut.

Appendix 2.3 Interview with Monica Yanuardi

- Carmel (C)** : How did you meet Tri Mumpuni.
- Monic (M)** : Well, I was a final year student. In Indonesia they had a forum conducted by McKinsey. It's called Young Leaders for Indonesia. So they have an aim to gather Indonesian students who have experience not only academic but also doing some real actions. And they have forums every year that they design to inspire young people to do actions after their academic program is end. And it's come from various background. As well as the issue that addressed also various. And one of that is social entrepreneurship and Tri Mumpuni was one of the speaker and also they call it Patron, so it's more like a mentor as well for the program. Because this program is designed for six months and during the six months the students can interact directly with the mentor. So sort of like Tri Mumpuni was also one of the mentor.
- C** : Was she also your mentor?
- M** : Not in my project, but she's generally come to the forum to give some various kinds of talks and topics. In general.
- C** : So, did you participate in the talks that she conducted?
- M** : Yes.
- C** : How many talks did you participate in?
- M** : For the whole six months, twice.
- C** : And, what was the topic that she gave?

- M** : So, the first topic was about, she introduced what she's doing and how she built it up from zero and then all the challenges. Because I think the first forum also address for like cracking the mind of the students and then it's continue from this, uhm, I think she came, yea, she was came for the last phase. Do in the program also have three phase and the last phase was called unleashing Indonesia. So she's talking more about you do a business that really contribute for the society in Indonesia. And it's regardless of whatever you do or what kind of business that you do. It should be think about for the society. So I think that's the idea that she try to inspire the young people. So the first is about how she build the business and the second part is about how it really contribute for Indonesia.
- C** : But before you hear her talk, did you know anything about IBEKA? Or, did you know anything about Tri Mumpuni?
- M** : I think I know more about Tri Mumpuni instead of IBEKA itself. So the first forum when she talked about what IBEKA's doing, it was very interesting because I have no idea how can she really being so international, on the other hand she would have built the village. She even have a, that's why I said I know Tri Mumpuni more that what she do because I was interested she was called 'the light of the village' and so I just want to know like really what is she doing with village because it's really literally lighted up and then I really surprise that IBEKA really literally light up the village. And I think we have 60 students from all over Indonesia. I think it comes from almost all of the province. Maybe not all but the representative of all 60 students also I think most of them know Tri Mumpuni more than IBEKA. But I think she was really have good talk that really explaining how it works in and it really cracked the mind that it's actually indeed not only one component, so when we are think to have a business that impact to the society, it's not about the business itself but it's about the connecting what is exist in the village and to connecting what is outside the village and IBEKA itself as an enterprise. I think those idea is really more that I was expected from Bu Tri because it's not about like what she achieve only but about really how doing, how to build this.
- C** : You mentioned about connecting what the village has and then with what is outside, have you heard of this idea before you hear it from Tri Mumpuni?
- M** : I think, I personally am interested as well in social entrepreneur, so I'm sort of like heard about the concept of like for example triple helix. Think if you want to implement business for the sake of the society you should be have at least three of this institution that connected each other like governments and the, your, as the enterprise and probably we can have some academic institutions or private sectors as well. But from Bu Tri Mumpuni it's a more have a clear reality ideas of that. It's not only about the concept but it's also more about the reality. I think Bu Tri

brought up those sense to the talks.

- C** : We go back before you hear her talk. What is most interesting about Tri Mumpuni for you?
- M** : I think she's such a picture of a leader and women. I think that one points that is very good for Indonesian considered that it's also we're still, we're working a lot towards the gender equality, I guess. Tri Mumpuni is one of the representative of the women leaders. That's the first points about her. And then I also interested because she build up the village and she's going global. So I think the thinking globally or have the national or a global capabilities on leading some actions, but in fact it's act in locally based. I think that's amazing as well. Cause it's not easy to bridge thinking locally, ah thinking globally but act locally.
- C** : Ok, when you see her on the day of the talk, is that the first time you saw her?
- M** : Yes.
- C** : What is your first impression when you see the person and you hear her talk?
- M** : I think, if there's two words probably humble and confidence at the same time. And that's such a paradox but it's well presented by Tri Mumpuni.
- C** : And, why humble?
- M** : I think because, I think it's her personality so she's humble herself and I said it's paradox of a, I mean, I'm not blaming that the humble person is not confidence. I mean, maybe it's just stereotypically that a,.. But I think Tri Mumpuni is sort of a, I think that's the part that make her confidence as well, she wants to bring out the message as well to the others that you don't have to be a fancy looking or look serious when you want to do something big. The essence is about what you doing, that's the essence part instead of like the outlook.
- C** : When you hear her talk about IBEKA because she talks about how she built it from the very beginning and the challenges, and then you want to be a social entrepreneur as well, how do you feel after you hear about her experience?
- M** : I think it's, well, it's been a lot of message but I can take it home which is perseverance. That is one of the most important thing to do this because, I mean, the business enterprise that is profit oriented, for example, is also always ups and downs. And especially, I think, social entrepreneurship have more variables than the profit. It's also have to be impacted to the society. And especially in Indonesian case the society in itself is very rural and so, I think, perseverance to do and to get going

for the job that you do is one of the key. And, I think creativity is played an important role on this. I mean, because, you never know the society and the society really related to some social issues as well that's very sensitive then you are involving a lot of the people in the society that they also have a culture, for example, that you have to always navigate like what's the best deal for this but maybe not the best deal for the next as well. Well I think it's applied all the kind of the business sector but I think in social entrepreneurship because it's really considered the society and the characteristic of the society is, especially in Indonesia, it must be still culturally based so it also needs very high creativity to tackle this problem. And it's probably, it's also useful what I heard from Bu Tri doing a job in IBEKA like she doing a waste bank. A rubbish bank, from the rubbish. It's one part of the activities to make it sustain. I think it's really an idea because she's sense that the women also can be involved. I mean it's very easy because every household have their own rubbish but they don't have some management on that. So, I mean, come up with that idea, it's sort of like a bit outside of the main goals of the business but I think that is really one thing that play important role to make it sustain. And those require a creative thinking. And creative and perseverance is two things that's very hard to maintains. I think those spirits are, I think, as the essence beyond successful enterprise. And IBEKA to be exact.

C : What were the challenges that she mentioned?

M : It's been years ago but, I think she needs also to convince the peoples there. I think convincing people there is also one of the biggest challenge because she needs to build up some kind of generator or something. And, it's not, it will also be taken in the some land of the village and probably also start to skeptical as well because it will be given some probably like a bad back, the waste itself. But they have no idea actually what's going on. That's I think the point to convince. And to convince people also she said should be very tricky approach because it's different layers kind of society as well. It's some, it's also they, I remember that she had a funny story about *hansip*. It's a security system in the village. They also require to protect the village, I guess, so there are more probably bigger challenge to convince them compare to the society.

And also about the money wise as well. It's the biggest challenge. That's why she come up with the ideas as well to have the waste management bank of rubbish.

C : But the money that she was talking about, was it to make IBEKA sustainable or for the building of the turbine?

M : I'm not sure I can answer those things precisely, but I think it was because it's like electricity engine and in Indonesia we have PLN, which is that the national engines of electricity. However, this machine should be run. I think it should be to make it sustain. I mean, this system

instead of IBEKA itself. Because now I think IBEKA has become even have a school, sort of like that. And I think that's the growing part of IBEKA itself. But the basic was to keep the electricity on. So that's the basic idea. That is also the ideas that Bu Tri thought for all the society that live there that what they pay is to make, it's like the same they are paying for the national company for electricity. And, but they have a different system. And IBEKA offer another creative system which is with the rubbish because the rubbish then transport to be money.

C : Why do you think she could do all this? I mean, she's a humble woman but despite the challenges and also to convince people. From what you see in her. Why do you think she could do this?

M : I think first I would like to say on the internal and external factor. Internal factor is Bu Tri has a passion, a strong passion of this and is not, I think she saw it's not a job, it's not an enterprise, it's just a thing that she likes to do it. She believes it brings some happiness for her. It's her wellbeing, like, because I really see when she share about the story that she's actually also from village and know how t struggle this and how amazing if you, I mean, in today's world if you don't have light that's a, and you can help to have a light then it's a big change for those life. And she's taking that perspective. I think that's the internal factor in this discussion.

And external factor, I think she's maybe building up, if I can say that, or she's well connected in her network, I guess. Her husband's also, I mean they do quite similar things. At least I think maybe they complement each other with this, so I think it's also a biggest support. In the other hand, then she knows how to contact like the research people as well, and then as well as has a good approach the village and so on to make it happen. I mean, I think, this perseverance gain sustain when the support system is exist. And the well maintained and the well pick, I mean to pick the right network to make a good support system is one of her factors to be success.

C : The second part of the talk. What was it about?

M : It's about unleash Indonesia. And how to make a, how, it's more into when you do a business or whatever you do. It's always think about society and others. And she's also represent for the social entrepreneur but our forum there was a lot of businessmen there and I mean, obviously, it's helped by McKinzey, so it's a business part of this. And, also the audience was not only students who interested on social entrepreneurship like me but also more to private sector in a way. But she's, she talks about when, whatever you do, think about society.

C : Okay, so there were private companies as well. And, what is McKinzey?

M : McKinzey is one of the biggest consulting companies. I think in global

as well. So they are, they use, they are management consulting. So they're basically address the problems in company or in management. The forum is called Young Leaders for Indonesia so it's part of the, I think in McKinze, I think this is part of the social activities of Mckinze but they are having good patrons that is also to cover a lot of Indonesian leaders that is coming not only from private sectors but also in the governmental sectors and so on. And even this organizations actually also address some projects. It's not only related as a McKinze clients, for example we have an MRT think design project with the government of Jakarta. Something like that. So, it's more, because the idea is to unleash Indonesia. So they try to put a lot of elements in this. Bu Tri on social entrepreneur.

C : But, what were her messages to unleash Indonesia?

M : I think the main message was again, whatever you do to think about the impact of Indonesia, society, in every sectors. To do like, for example, who do in the private sectors anyway probably so international private sector but anyway it's a good contribution for Indonesia investment for example. And just to ensure that it's a healthy investment which is have a positive impact for Indonesia then it's good, instead of just thinking about investment. So we have to think more beyond what we do. That address on Indonesia.

Then for her it's really obvious because she's a social entrepreneur as well. And the examples of what she's doing, that she also mentions on the talks. It's very clearly example for that. Yea, I think it's a little bit cracked also that the heart of the people that's interested in the private sector because now they start to think again what the companies can do to address those things. Again I think the company also need an enterprise like Ibu Tri's have because they can make a cooperations that actually support each other. So that's also unleash. And I think it's also good to talk about that for the young people who are starting to enter the workforce. Probably that's also the time that they start to think what's the next to do that give an impact.

C : Do you think there are any young people that wants to join IBEKA after that?

M : Yes. Actually it was two people to applied for that, to IBEKA. I'm not sure whether it's just internship or working for good for that. But also some of them already had some actions with their own. So they also have like a startup. So it's a privilege to get to know more Bu Tri so they can also contact. Because she's really open as well with this forum to give her contacts if some, if the students wants to consult or just to have a some, yea, to build up a network basically because that's what she teach as well. To build up a network.

C : How about the private companies? Do you know if anyone approach her after that?

- M** : I'm not sure. But it was a big forum that I'm sure even she's, I mean the speakers on that day is not only her and they also connected and have a like a coffee time to build up the network and I think some banks as well. I guess.
- C** : Do you remember any story or testimony that she said? That really touches you, that really inspire you.
- M** : I think she's, I'm not sure the exactly words, but the strong essence is that she said like, I work with the village, I'm from village, I'm in village but the world heard me. So I think that is for me, I mean, I personally also that is the message that impacted to me personally. But it's also I think I saw all my colleague in that room because all of us really high value being in international stage today. But then I think what Bu Tri said is more than what we are pursuing. So I think to work, the message that I think to work impact in locally but then thinking in globally and capable in the global stage it's the message. And she earn from the village because it's genuinely about helping but then the world heard. I think that is also, to always think about global is important but in the other hand the essence is to really mean something then the world will heard the message. That's inspiring.
- C** : I mean that's nice, what is it? From the village?
- M** : Yea, from the village and the world.
- C** : Just because of a simple thing.
- M** : And she's doing that really passion, serious, doing one thing but really good on it. It becomes the way. I think she got a lot of support as well internationally.
- C** : Do you think it's possible to be like her?
- M** : Yea, why not. It require a lot of hard work and as she said, it's a journey, so. It's not a straight line, so. The challenge is to keep it up the light, I think. I think about it's a possible to do.
- C** : I don't think she's going to stop anytime soon.
- M** : No, she's unstoppable, I guess.
- C** : Yea, because she keeps on having new ideas and expanding and expanding. Why do you think she talks to young people? Because there's this young leaders of Indonesia and I know that there was the IYCS.
- M** : Indonesian Youth Conference?

- C** : I think that one. And another she also went to a lot of campuses, she even went to Japan to give talks to people, to the students in Japan. Why do you think she talks to young people? I mean, if she wants to get some money or whatever, she won't talk to students that's because, I mean, students can't give her financial support but why would she spend time to talk to students?
- M** : Well, the great answer for that, I guess, I was thinking, because you really understand that the projects or the actions that she do is should be loved. She's like an estafet going. She needs to pass the next generations to do this. Well, in the other hand, I guess it's also again I really can see in her personal, I mean, I can feel when I heard her talk that she's really passionate in this and she's doing this and she's spending time for the young people because she wants to share and to share to get to know and probably have a possibility to inspire them. It's also a give back for herself. So, I think that's why she's doing that. Well, as a leader as well, as a successful leader, I saw from her that, because she started when she was also young, I mean, she's not starting when she's 40. I guess she started earlier. I mean she's young when she started, so she also wants to attack those kind of spirit as well in the next generation. And in the other hand, she was so professional when she was young but then she's having a very young spirit when she's now mature, a bit older. So I think that is also a recipe for a successful leader that I get from her. So when you're young, do it professionally like an adult, but when you're old, you stay young.
- C** : That's a good way of thinking.
- M** : I think I can see from her because she's so cheerful, she loves joking in every talks. She's more like telling stories to the groups of friends. She likes to bring those kind of atmosphere, I mean, compared to the PA, but each person has their own style of talking, but that's what I get.
- C** : One last thing that I wanted to talk about it but it went away. She shares about her business, even I think she shares openly about her business plan, like how it starts, and how she's doing, and, you know, everything is out in the open. And, as a business person, it's a risk, right, when you tell everyone how you do things. It's so easy, you can do it, blablabla. But, don't you think it's a risk as a social entrepreneur when someone will copy you?
- M** : This is a very interesting point because I just remembered that as well. I think, you know, in a way I can see her as a spiritual person. And, it's not about religion or something like that. It's more to that she believes as well that the greater aim will win in a way. So, I think that's exactly one of the message that she say. In Bahasa she say *semua yang menang itu sudah ada yang mengatur*. This universe also have the winner. And it also exist in well condition, so it will be well as well. I mean there would be no trick you or no negative if you do this because a good aim. And particularly she is here those things have a good aim because if

more people doing exactly like, not exactly, doing the same way like her, the same way in the sense that in the same spirit, the same goal, the same aim, even though you doing something else, but it's the same aim. By those, I think she's keep believing that. That's why she don't, I don't think so it may be threaten her business or something like that. And, instead, if there's somebody copies, what she's doing, she's more happy for that because there is more people doing the same things. But I'm sure, she's also, that's what I said in the beginning, she's also confidence in that. It means if there's some competitor in the future that probably will be a challenge for her, she's not afraid to that because she always know how to approach and her goal is helping others not to, like, competing. I think that is such a good spirit. She's so spiritual person.

- C** : If you have become a social entrepreneur, would you do the same?
- M** : Yea. I think so, because maybe sound so cliché but the world is too big. We cannot help by ourselves, so it's impossible to do yourself. It's indeed it's a job for us to tell people and greater aim is to convince them to do the same. At least open their mind for it.
- C** : Alright. Thank you so much.
- M** : Thank you. I hope it's helpful.
- C** : Very helpful.

Appendix 3. Videos Transcription

1. Indonesien – Wasserkraft für die Dörfer (Deutsche Welle, 2013)

(01:00)

MC : The village of CINTA MEKAR, Puni and Iskandar feel at home here. Most of the 5000 villagers exist on a bit of farming. Every home has electricity. That's not to be taken for granted because power connections are expensive. But this village has its own power plant. Puni and Iskandar installed it with the aid of foreign development funding. Her non-profit organization, IBEKA, specializes in mikrohydro power plant that benefits villages because there's plenty of water in Indonesia

Puni : We only borrow the water to be averted just to use the energy of the water without taking the material of the water. It is still good for our ecosystem and our habitat, because after we use the water we put back the water in the same stream of the river.

(02:00)

Iskandar : It's not complicated technically. For me it's much complicated socially because then it have to be run, operate, by the community. How to empower them to understand about this system and give them the responsibility to operate and maintain it.

MC : Iskandar, an engineer, train the villagers. They run the three shift system to supervise the plant. It generates about €3,700 in revenue a month. Puni had to fight for a long time before the government agree to buy the power generated here by the villagers.

Puni : We need 6 years to pursue the government to put the policy in place. I'm telling them all the time, I'm a woman, I can wait as long as I get what I want, what I want is the policy that it makes it possible for the local farmer, local community, to sell their hydro power plant energy to the grid so they can have good income and they will have a good welfare.

MC : What used to be the poorest village in the region, now has the money to fund pupils from poor families. 200 children in this primary school alone get financial support for pencils, notebooks, and uniforms. Entrepreneurs also get supports in forms of loans provided they fulfill the community committee's criteria.

Nunung Sariningsih (committee member) : We want to know about the business; what they need the money for. We want to see if the business plan is correct and if they will have enough to pay it back. That's very important when they are proposing the loan.

MC : This young father is getting IDR1,000,000, the equivalent of just

under EUR100. The way is now free for him to open a small clothing shop.

The capital Jakarta is only a few hours drive away. From here Puni coordinates her organization, IBEKA, collecting donations from both domestic and foreign sponsors. This evening she's on her way to a panel discussion at the invitation of the US Embassy. Puni is now used to appearing in public. She decries the fact that Indonesia is rich in natural resources but the population at large scarcely benefits from it

Puni : In one hand I got so much privilege when I can share with the people in rural and poor area, in one hand it's ironic when I have to be in a five star hotel. I met with the many big shot, you know, many big people. This is how I have to adjust my life. I'm taking from the rich and give it to the poor. This is my intention in life.

MC : They (Puni and Iskandar) don't plan to rest until everyone in Indonesia has access to electricity and the money is distributed fairly.

2. Tu Ri Mu N Pu Ni O Ji Ta Ko Myu Ni Ti 2/5 (Eiji Press, 2012a)

(00:30)

You just saw the film. The film is somehow the biggest power plant that we build in 2008. But the one that you are going to see now is actually small than 500 KW. Why microhydro? Small scale, scattered, the potential is in many places, we have so abundant resources. It's important empowering the local community, especially the poor because there is a powerful tool to build microhydro. And I'm sure with the proper social preparation the community will benefit from this microhydro.

3. Ri Mu N Pu Ni O Ji Ta Ko Myu Ni Ti 3/5 (Eiji Press, 2012b)

(00:42)

And only 1 year in operation they can collect more than 5,000 US dollar in the community village account. This is incredible. We call it social capital at the village level. Why it happens? You see, when we have a training we explain to them how important is that they have to pay the electricity bill based on their capability to pay and also their willingness. You can see the different. The state owned national power have a very small tariff, only 2.4 cents US dollar because the government put very huge subsidy. And the local their own microhydro tariff very high, 8.6. Not us who decided. Based on the village consensus, village meeting, they agree to pay 8.6 because they know exactly this is the money that reflecting its economic cost to sustain the facility in the long run. No one will give them subsidy. They understand that. They realize. So they cannot compete with the government utility. The funny thing was, in that village the consumer still want to have microhydro. Why? It's a

very practical reason. Microhydro is reliable, they only stop in operation for routine maintenance. 2 hours every Friday morning. If something happen, it's easy for them. Just go to the office which is located in that village. What happen if something happen with the national grid? Every rainy days usually there is a blackout. Sometimes 3 times blackout. If they want to complain, they have to ride the motorbike for hours in the nearby utility office. Why is blackout? Because the heavily rely on fuel subsidy and is very expensive to bring to such remote are the diesel oil. Sometime diesel oil due very difficult transportation also came late to provide electricity.

(04:28)

I would like to share with you the village cooperative who actually started electricity business in partner with the private sector. SO you see everything then beautifully well connected. The big and the small. All fit to the grid, the national grid.

This is one of the example, not very far from Jakarta. I know many Japanese go to Jakarta, but not bad, just 3 hours drive outside Jakarta to see how the community and the private sector are partnering to create pro poor infrastructure. In Cinta Mekar village.

4. Tu Ri Mu N Pu Ni O Ji Ta Ko Myu Ni Ti 4/5 (Eiji Press, 2012c)

It is only 3 hours driving from Jakarta. Why hydro is environmentally friendly? Because there is no dam. We 're only using run off river. 1,500 L per second is the head race, but we only use 1,100. Sorry, this is 1,500 but we only use, you see here we only use 1,100 L/ second of the water because the 400 is for the irrigation channel. You see it's a very usefull for the local community because it's not only for electricity but also securing the water for the agriculture activities.

- technical explanation -

Whenever you build a microhydro, the local workshop is always benefitting because then you create employment for the local workshop that they can create, manufacture, this turbine. They using the single generator and the power output is 120 KW and all sells to the grid.

And this is the initiator when the first time we started. United Nation Social Commission for ASEAN and Pacific donated 75,000 US dollar and they put the money directly in the community fund. And we trying to find a local private also put their 75,000 as their share, private share. Actually there are 2 the shareholder. IBEKA is only put additional fund because we want to use this microhydro as a training facilities. Indeed we use this place as a training ground now. We already giving a training to many people in South East Asia and also from Africa in this location.

Who is the ownership? It's a joint venture local private, Hidropiranti, and cooperative Mekar Sari. Every parties owns 50% share. The total investment cost, including IBEKA contribution, is 225,000 US dollar and sells to the grid. And the price, at that

time, the price is only almost 5 cents but now increased, 7 cents. Because our utility just increasing the price to buy from the local community. We call it *feed in* tariff, they have a very good price according to the developer is 7 cents.

This is exactly what the cash flow projection looks like. Joint venture monthly sales scheme. Finally only 500 dollar in average everybody receive the money. But I don't want to look at what the money is but how the community trying to use the money. This is social development plan. Everything has to be planned before we build to get consensus for every single villagers. If you see that, this is meta plan we call it, everybody have their own ideas, they can have ten ideas, but every idea is only in one paper.

So we cluster, we create what we call it problem tree, and then from the problem tree we can find, we call it solution tree. The solution tree finally will be put here as a result of the activities done by the local community during the village meeting. They would like to use the money to electrify 122 household because in this village 646 household still 122 without electricity. So they want the 122 household to be connected to the grid using money from the electricity sales. After that they agree that every kids, every children in the village has to go to school for free. Because the village have money now. And they also can have a free healthcare because the village have money. And the rest they use the money for seed capital. Every farmers who want to start to grow rice, to plant the vegetables, or every woman who want to start the business they can come to the village fund, to the cooperative, to borrow the money with 5% interest rate per year. They cannot go to the bank because the do not have collateral. They cannot go to the middleman because they put very high interest. This is a good solution for economic development at the village level. And the rest of the money go to the village infrastructure to repair the road, to repair the bridge, also to repair irrigation channel if something happen. Even the village committee, like village head man, who always use to work on voluntary basis now they receive the salary.

This is something, you know, new that is also giving a very good empowerment in the community level. Of course the cooperative will get the share because they are the one that are managing the money. This is only 17 month because after 17 month everybody are electrified, so they have a meeting. The cooperative decided that the money has to go in a different priority. At least 156, actually the current situation is 209 students can go to school with the village fund up to high school now since 2004. And they have their own village clinic healthcare so they don't have to travel outside the village to get the health treatment. Usually they have to walk or go by motorbike, you know, 7 – 10 kms going out of the village. Now they have the village community healthcare and they have a doctor that visiting them. They have community on radio, they have village telephone. This is the beauty of small but meaningful for one small village. Can you imagine if we can create in a thousand village, you know, this is what the powerful of small. We want create and replicate in many places.

5. Tu Ri Mu N Pu Ni O Ji Ta Ko Myu Ni Ti 2/5 (Eiji Press, 2012d)

This is the basic principle and the paradigm how social business can be implemented. The initiative for the community based and social business development is whenever we go to the village we have to really respect the local community because we know that the resources actually belongs to the local community and they have their own culture and they have their own way of life. And we invite them to participate in the development process. If we can do that meaning that we empower them. If the empowerment is happen, the local capacity building actually increase. And it is interesting because the local equity also can be created.

Then the development system know how and the way we think actually is always pro local wisdom. We are respecting the value of the local people to be able to join in the mainstream of development. This three element are very important. You can imagine if the three of them are spinoff, the community based development or social business it is really embedded, intrinsic. It happen and self-propelled (*Fig. 1 from video #6*).

Ah this is just an example (*Fig. 1*). Because we have more than this. Indonesia have 75,000 megawatt potential of hydro, and 10% mini and microhydro. I just give a very small example, 500 MW for instance. You can imagine 500 MW but many small, you know, not one big in many villages. In 500 villages for instance. We can save the fossil fuel consumption because normally Indonesian still using many high speed diesel, coal. We can save 949 million liters of the fossil fuel, of the high speed diesel. Because we build microhydro. The investment we did is about 1,000 million US dollar, it's about 1 billion, but the projected employment and how many small enterprises can be created is more than 5,000 small and medium enterprises. New employment. More than 39,000 people are being employed. And the total capacity flow of the money that goes back to the village from the national utility is 140, you know like, 1.4 billion US dollar. If we calculating under the scheme of clean development mechanism that you have here, Japanese is creating under Kyoto protocol, there will be an income of 6 billion US dollar of certified emission reduction. You can imagine how powerful this small scale but many.

I would like to end the presentation by giving you the contrast of the human living paradigm. This is very interesting for you to look at. Something to chew on, to think about when you get home. Just see it now. How the social business paradigm and the commercial business paradigm based on the 2 different approach. One is human based ecology and the other one growth based economy. If we talking about the commercial business, we trying to increase the middle class number to achieve high capability workforce in the society. We need many people for the wallstreet here if you see Ginza, you see many places here. You need this people. That's why we describe with the very big needs of energy. Thousand thousand megawatt.

This is what when we look at the very simple thing. Increase high morality numbers to achieve critical mass of wise personnel in the society. This is what I always say Ashoka are trying to create the group of the people in this group. The social entrepreneur.

But what is the result? If you look at this growth based economy, people are being persuaded to spend the money we don't have on things we don't need, actually. To create impression that would last to a people we don't care about. I don't know maybe you think this is, you agree or disagree, that's why I would like there's something to chew on and to bethink about, not now. People are wise, social, nature concise, consuming only what we need, humble and simple, and sharing a mutual prosperity and peaceful living. And you can be a corporate warrior, commercial business. Or you can be a local community hero then one day you can be a global citizenship.

Thank you so much. I am so happy being with you. Konichiwa.

6. Micro-Hydro Power in Indonesia: Lessons from a Social Entrepreneur (Lynch, 2011)

This is the principle why we would like to do all the works. It's the basic principle start with everything in small island has to be community based. Because it's very far away from the central government and we have to make sure that everything has to be sustainable. To make it sustainable, definitely we have to involve the community from the very beginning of the project. And now we using the social business implementation. Business beyond money and profit. Business that look closely more on the benefit of the community. How we could start this, the initiative of starting the business. It is, we come to the village, wherever we would like to start our project, our program, by looking closely on the local community activities. So we put respect to, u know, to high and trying to involve them in the activities that we are going to implement. And then we invites for the participations in the beginning of the planning of the project. And of course this is the result of the project that has been developed, community empowerment.

While doing the community empowerment, of course local capacity can also be developed. And when the community participate, the local equity building also developed. That's why, what we use during the development process is pro local wisdom development. We so lucky if this three elements (*Fig. 1*) can be spin off because the self-propelling community based development of social business, it is intrinsic. Come to the every steps of the activities that we implementing. This is exactly the paradigm that we are introduced at the community level.

A module of social business investment in power sector has become now one of the really leading activities among others small project that we also doing together. This is Indonesian case experience and our organization is people centered business and economic institute. That's why we are putting, implementing, renewable energy microhydro electricity, basically the end goal is to develop the economic in the rural area.

(07:20)

This is the history of the IBEKA. I would just like to tell you a little bit. Starting in 1979, maybe some of them not born yet, up to 1990, we are using the *pesantren* infrastructure project. *Pesantren* is like a Muslim school. It's a very old school that

we can come and work together with them. If that in 1998 to 1999, what activities that we are doing is electrification with microhydro, we providing clean water, with a very simple gravitation and deep well because water supply and sanitasion is the very basic needs to do school. And also moving to other villages in a broader scale, still providing a clean water supply and electricity.

Ini 1986 to 1994, Bandung is West Java area. We have a cooperation with SDC, Swiss Development Cooperation. They would like to have a greater Bandung Small Metal Enterprise Development project with the Swiss contact where have the chance to develop the capability of a very small workshop in a West Java area, in Bandung especially, that we can improve the capability of the small metal works that has been developed very traditionally in that small workshop. And then, in the same time after, well actually if you see that the is overlapping between 1990 and 1994, it's microhydro dissemination project supported by the German Technical Assistance and also Swiss Contact Stale for energy. This is the Swiss NGO that really focusing on the development of microhydro. So this is the right time because in one hand we are developing the small metal workshop and at the same time we can implement the results of the works. So if the workshop is making the turbine and we have the program to implement the microhydro. So we using the result of this small workshop to implement microhydro.

All this activities under Mandiri Foundation is appropriate technology development group if we know that Bandung Institute of Technology where all the students were started in the first of this activities. Then IBEKA is using this technology as an entry point to start the economic development in the village level.

I would like to show this rural economic development and environmental conservation. And the biggest activities on renewable energy implementation, village infrastructure development, and also women empowerment and child education, post harvest processing and organic farming. This is have all different session that all concentrating doing all this activities.

(13:45)

-showing the pictures of the inside of a power plant-

Even though looks so sophisticated, but actually this is user friendly because we have to make sure that the technology has to be brought close to the community, then it is appropriate and is meaningful, also sustainable. Because we would like to make sure that the community are able to maintain, to operate the facilities that we have been working and developing together with them.

(17:51)

Okay, back to the social business ideology that we now working together with of the villagers, the community in the rural area. Local communities already have the resources and the capability to self development. This is our observation after the last 20 years, you know, working closely with them. It's very important, we have to unlock the local capability and the potential that has been there. And bring up the local aspiration of the development, which very lacking now, due to the centralized system of development.

And real time to support the local aspiration priority. How we do that? We do that because we have the basic principle of the empower principle. This is, if you see, every community has local resources no matter they are. In Indonesia, in Fiji, in Africa, there is always local resources. How can we transform this to become local contribution. There are several things that we have to develop if stay with them, we should find that with this motivation, their self confidence, their self-valuation, their good experiences, their creativity also their self reliance. We can switch this to become their local contribution. So the program that we are introduced to them has to have a good orientation and the formulation has to be realistic. Also organizational capacity and capability is very important. So wherever we go, especially we want to start implementing the microhydro, for instance, we always ask if any of you in the village do not want to form any cooperative or any institution, then sorry we are not going to build anything. Because then everybody owns it or nobody owns it. We should make sure that there is an institution that can work with us and then we can hand it over, so this will, what we called, giving the guarantee of the sustainability. Also technical appropriateness. Through the training, as I mentioned before, we have to really bring all the technology close to the community. So appropriateness is very important. And then subsequent cost for sustainability. This is including talking about how the contribution. How big, how small, how rich is the community, how poor they are, so they can contribute something to be able to make this sustainable. And then consideration of infrastructure. This is very important aspect because we have to build together, work with the community, we have to make sure that we are working with the very influential people who live in that village or in that area. If it's not then it is very difficult to convince other community member.

Well, of course the political stability and economic and social trends with a good governance will ensure that this project will be sustainable and successful. And then ecological sun is good, environmental condition, with a good governance. We are struggling in good governance in any aspect of development, especially dealing with the Indonesia as developing countries. We still struggling to fight against corruptions even though we already have so many institutions that against the corruption. We still have to put this principle. I know how difficult it is but that is development. What we do as an outside, all of you, me, everybody that would like to work with them, as an outside we could give only contribution, as a advise, giving training on technology, assisting them on the financial aspect, but all of them are just lake manure. It has to be complementary, transparent and open, which is very difficult. This is the part that is very difficult if we work with the government fund. It's very hard to get the transparency and the openness. So that's why we would like to always campaigning how important this principle. Well those, because we're the ones that know, how big is the capability of the community to understand our program. And then time balanced and continuously monitor. This is the principle that we believe strongly, we should applied in any development process that we would like to apply. If we would like to consider that in this part we call it personal empowerment and this part is structural empowerment and it's to achieve the objective, the outcome of the development. This is tangible and measurable, you know. Measurable, not miserable. It's completely, you know, close. Measurable and miserable, you know. Measurable. Sorry, it's the English, you know.

(25:00)

This one is the project in 1999, well it's in Sulawesi, one of the island between Kalimantan and Moluccas island, Papua. This island, Sulawesi, is a very simple. You see the water here is going up here. We just put, take the water here and put it in the pipe, the penstock. This is the local villagers that now are capable to run and operate themselves due to the training that, you know, we have conducted and they have to follow the training. Even if you build on community based, the office for this utility, you know they can name it as they like. Electricity cooperative, but typical this village they want to have PLD, Pengelola Listrik Pedesaan. It is like a village utility. Even the office is on a grant basis. The community are willing to give away their land. So that they are able to build this very simple one. But if you see inside, they are very professional. Because the structure of the organization. It has to be there because you need it. To manage and operate there is a chairperson, this is secretary and treasurer that collect all the money from the kiosks, and this is the technician. The village had men, ad hoc, that always become an advisor and this is the consumer. You can see inside this is how the, you know their schedule for the technician to work. K is in the office, T is for turbine. So the turbine and the office is in different place so you have that people that working on the basis of a, regular basis. This is a metering card, contract book, administration. This is the chairperson, the secretary and the treasurer and the technician. You see that this is also we just look closely though. This is the consumer map. Since they want to make it so professional. If something happen in a tiny household, they know how to improve, how to repair because they already have all this map. They know the consumer map. This typical facilities with only 60 kilowatt giving services to 545 consumers. In just one year operation they already have the saving account of 5000 US dollar. It's very important to put the money under their name, you know, the bank account. And they're able to collect the electricity bill and put the money in the bank.

But this is how beautiful is Indonesia, I would like to share with you. This is the national utility. It's a big one, centralized, owns by the government, big utility. At that time, per KWh is only 2.4 cents US dollar. It's very highly subsidized and the government used the high speed diesel. You what happened in the community? They're able to pay more, even more expensive, 8.6 per KWh. So when, when the community microhydro set up owned by the village utility, suddenly people who live there and working for the national village utility want to compete. And the owner of the microhydro like, oh my goodness, you know call me like, Ibu, could we survive? Because our price is 8.6 and their price is 2.4. Don't worry, you know, because I know very well if you're in a very remote area, I can guarantee that 3 times a day is must be black out. You know. Especially during the very heavy rainfall, it is always black out because they are afraid if the transformer will be, you know, strike by the lightning and everything. So wait, just wait until 1 or 3 months. Look what consumers will choose. Oh, thanks God, not up to 1 month, you know. Just between 2 weeks, you know, finally the consumer who confuse, you know, why this is so expensive. I told them, expensive because you need to sustain. So it is profitable just to make it sustainable. That's why the community need the price and the price is based on the discussion. You know that every five years small parts you need to replace, you know. Okay this is in 1999. Now it's changes. Still in national level, price is still low than this one. This is Taba.

(30:53)

I have another example, is Ah Nuso. Ah Nuso is the recent one. Okay. This is the reason why we built and honestly before I left here there is problem. Because is campaigning for the election of new district head man. And they would love to take over this facilities. Because when you are able to take over, and you promote that this is, you know, the result of this district head man then hopefully many people would vote him. We have a big fight. I don't know the result because I have to leave, but we already preparing everything here.

This is the second week of October, ok sorry, it's very quickly. This one you can imagine, this is all in the national park. To travel ten hours to get to the site from the nearest airport. So, this is what it looks like. We are able to build two, the 40KW and the half mega. Along the line here are plenty potential that we do not have fund yet, but we still fund raise. You see the blink site, the blink site is where all the facilities, sorry sorry the blink I was very quickly. Ok. This one (*Ah Nuso*) electrify about 6 villages and still they have plenty idle capacity because in the peak demand is only 90 KW. What we are trying now to do is trying to find the fund to connect this to here (*other, more northern side of the map*) and the district capital, using the fossil fuel, highly depend on diesel oil, high speed diesel, and if there is landslide here, this is always blackout because this is the only road to transport the diesel oil to district capital. You can imagine if can build all of this 3.5 mega, definitely we can replace all the diesel.

(33:43)

100% owns by the local community. This is the beauty of our activities. We would love the community to have everything on their own because that is development. We can sustain that all the project will give additional income and make sure that is improve community life by giving this asset to them. You see it's even more expensive now, 10.9 cents per KWh, which is the national still below that price (Fig. 6).

(34:25)

This is village rules, like you have bill, you know. If it's national you have healthcare bill, and this is the electricity, you know, law. That is actually the local community agreed and legally bind so no one can take over their ownership. This is to make sure the ownership is still in the village level. That's why we need to make this in every project that we have, you know, in relation with the ownership of facilities. Because once the facilities really good usually the local government would love to have, you know, to have that and take over. That's why we need to have, you know, this legally bind rules that no one can take over.

(35:47)

Cinta mekar is already connect to the grid. The beauty of connecting to the grid is we creating income, monthly income basis for the local community. So they have their own village budget. If the government has national budget, there is village budget. Coming from where? Coming from selling the electricity to the grid. And it's very, well I can say it's a very long effort because we started in 1994 when we fighting to have the regulation and finally the regulation is in place in 2002. This is you know the beauty of fighting, you know, the right of the community. I'm happy because we can fight easily as a woman, you know I always say, I can wait as long as I get what I

want. What I want is to make this legal aspect that the local community are able to sell electricity to the grid.

(37:02)

- *technical explanation* -

Why we say this is environmentally friendly because the water just, you know, we need to take the energy, the water goes back to the river. Usually along the same river. 3 hours driving from Jakarta, so it's not very far. Anytime you have the chance to be in Jakarta, it's so easy to get there. Very good infrastructure I can tell you.

- *technical detail* -

The beauty of having microhydro community based, you can talk to the community. What else do you want? I want electricity and I want irrigation channel. That's why we design for 1,500 and we only use 1,100 because the 400 is for the irrigation channel. But sometimes other community need, I need electricity but I also need clean water supply. So we can you know use either one.

This is technical detail. What interesting is the money, the 50% of the fund coming from United Nations Economic Social Commission for ASEAN and the Pacific, and this is the fund. It's not that much. To be granted to Cinta Mekar Cooperative, as 50% as community share. Because the fund is not enough to provide the fund to build that so I need to find the local private. And the local private contribute 50% as a private share. And IBEKA of course as an NGO we put small fund because we would like to use that facility as a training facilities. Now is become training facility for Asia Pacific region, African, and small part of Latin America. We are in cooperation with the Ministry of Foreign Affairs to bring the energy officers just to know the scheme. Because the scheme is really creating income for the community and really good development for renewable energy.

But we not allowed to get the money from electricity sales because electricity sales fund is just go for the community and also back to the private. This is the money. The local community owns 50% and the private enterprise. This is the total of the fund and this is the 4.9 cent per KWh that utility bought the electricity. But this year we just fighting, trying to increase and they agree to buy 6.5 just recently, but it's not yet in place. The money is still in discussion because it's so small. Compared if you, you know, your production cost using fossil fuel will be more expensive.

This is the money. Sorry, looks like really lot money but this in rupiah. So, it's nothing, you know, because only in US, you see it's so small. But small is beautiful even though I know big is necessary, but small is beautiful. So the money goes 50% to the local private, 50% belongs to the coop.

The beauty is when we talk to the community. This is what important of IBEKA works. Social development plan. We invite, you know, the shareholder and stakeholder of the village and asking, if this village will have an income, what are you going to do? Surprise me, it is a very small amount, is equal to like 500 US per month. Everybody in the village agreed that this village has 646 household, out of the 646 household, 122 do not have access to the grid. So they just agreed that this

household to be connected to the grid, so the income coming from the village has to be using it, and then the money is for scholarship, for health care, and capital. Now what happen, we see, at least 150 elementary school children go to school because they are coming from the poor family. The village send them. And then their village health care they can build clinic health care in the village, community radio and telephone. Okay.

(Question) What is the break even plan and the exit policy?

Mostly all we build is using the grant fund. Only the small public private fund goes in, but in every renewable energy we only consider between 7-8 years the payback time. But the bigger the power plant you have is the shorter the payback time because, you know, especially when we sell to the grid. But if you talking about the community, don't talk about the pay back. For me the most important thing is if we can create, this is like a trigger in their economic development. Because with this investment you make, you can just calculate the advantages of having electricity. It's sometimes more if you compare to that. Because we would like to boost the power in the village level.

Second question, yes indeed, we have in particular site in Indonesia we have 5 years. We have to have an exit strategy. That's why we have to make sure that is the training has to be conducted. Participation and discussion to make sure that somehow, you know, I always tell the community that our hand is only two so we have the people to accompany you from our organization but staging. We would like to make sure that you have the capability so have to phase out. This is 5 years time. Whoever coming with us, JICA or any AUSAID, whoever I always say that even if you only just come with us only for 1 year, we have to make sure we have to be with them 5 years. Especially in the eastern part. The remote they are, the longer we have to accompany them. But if you talking about Java, some part of west Sumatra, it's only just 1 or 2 years they already, you know, enough.

(52:54)

It's not because I'm a microhydrologist, just because we understand that microhydro is environmentally friendly. You know, it's also user friendly. It's very good for the environment. The reason is why? Because we never ever make a dam. We using the run off time. This is, I hope is answering your question. We don't use huge amount of the water taking from the river, we just using that is really sustainable and also based on the needs of the community that lives surrounding the neighborhood that needs electricity.

7. *Bringing green energy to rural Indonesia - Tri Mumpuni* (LEAD International, 2012)

Indonesia is such a diverse country. We also have big disparities between the richest and the poorest. LEAD for me is really widening the vision for those who become a fellow and we have the chances to find the solution that really bring sustainable development.

From total populations of 240 millions people in Indonesia, we still have more than 90 millions without electricity. Mostly they live in a very remote area, poor infrastructure, scatter. And this people actually could utilize their own local resources. Cinta Mekar is a village that has a river and the river can assure than 120 KW electricity from microhydro can run constantly. What we build is renewable energy. Very environmentally friendly technology. In this case microhydro is utilizing water that run constantly from the river. Everybody in that village who live in the darkness, if you see their face how happy they are, you know, having that light at night time for the first time in their life.

Cinta Mekar project is the on-grid project where the electricity sells to the grid and the money from the electricity sales go to the community development fund to give scholarship to the poor children to be able to go to school, giving free healthcare, providing fund, seed capital, for the women to start the businesses, and also to fund the village infrastructure development.

It is really shocking that what we do got recognition from President Obama.

Obama: And we got social entrepreneur like Tri Mumpuni who's help rural community in Indonesia to harness the electricity...

I was so surprised because I will never ever imagine. We just want to help people.

Well, I'm so happy to be a part of LEAD because if we still can spread the technology that we have now. We are willing to share with other people, we can create a better environment globally.

8. Tri Mumpuni - Positive Economy Forum Le Havre 2014 (Positive Economy Forum, 2014)

Thank you. Thank you, good afternoon. I am so happy here. I have a chance to share with you for the last 24 years what we have done. Not only creating an access to energy for the poor but also trying very hard to make the local community become producer. Because I assume that making them as a customer or consumer only doesn't create a good positive economy for our future globe. I would like to discuss one of the access by explaining two different approach.

First is off grid system where the community has to take care their own power plant because we give them the technology, we empower them, so they're able to create their own development activities that can fulfill their own energy by utilizing the local resources that available locally. This is what we call we make them as a local producer. This is one of the example if you see from the picture. This is like 9 hours driving by car to a remote area in Indonesia and this particular area we are working together with the local community just to develop 60 KW. Very small but possible and reliable energy supply for their own people. Then we train the local people. The local people has to be empowered, to prepared socially. So you see that our engineer train this only graduate from elementary school and in the 3rd grade. They are able and capable. We give them the confidence to operate this power plant. This location is, of

course, flying from Jakarta, the Capital of Indonesia, 2,5 hours then 9 hours driving to this particular place where is very remote and poor of infrastructure. And by building this, we have the local people to contribute even if you see the office of this village utility. The building and the land is donation by the local people who believe that if I donate this will have a big impact for my own villagers to have this facilities. And you see inside in the office itself everything is so professional. They know that there is a book contract, they know the metering system that if you want to consume the energy you have to pay the monthly bill. And you see there is also a map that actually representing 545 customers who are become their consumer. And just only one year they already using this they already have 5,000 in their bank account. The money belongs to the local community. The national grid trying to reach them, to come, they have to compete because the national grid, especially, government put very high subsidy. This is only 2.4 cents dollar per KWh and the local community pay 8.6 cents US dollar. Why? Because they know and understand based on their own consensus they need what so called, you know, the price has to reflect sustainability of the power plant in the future. This is what beautiful of community based electrical power supply that we have been done for so many years with the local people.

Then the next is the second example is a community, we call it, a community grid connect. When they have the resources they can build and they can connect to the grid because they have an excess power. For instance if they have half mega, they only consume very little like 100 KW, they can sell the rest to the national grid. So, what happen is you see that by having that so all the villages are grid connected in the end of the day. Big power plant and the national utility only supply for the industry and urban area. The small villages are supplied by their own local people. This is what we would like to create a positive economy in the future. Because the income is not only hold in a big company or in national utility. But the community itself can create money by selling the electricity to the national grid. The money flows back to the villagers and based on their consensus they can use the money for many different purposes, especially for village development fund.

So, if you see Cinta Mekar is one of the example. It's very small, only 120 KW installed capacity. But they already creating a dignity and self interest by the whole community to participate together, work with them, and you can see that this is not only their plant but also become a training facilities. This power plant initiated by the United Nations and our organization and we inviting local private, local private who are interested and want to have their money that runs and operate not only seeking for profit but also give benefit to the local people. The investment is not that much. It's only 225,000 US dollar. But when they sell all the electricity to the grid they get an income. The income has to be decided what the income is for. So what they do, they use the money to send the electricity to connect the local people that are connected to the electricity grid. (*showed Fig. 7 & 8 from video #6, the cost structures of Cinta Mekar*). And the second, they want the money to provide scholarship for the poor kids that not afford themselves going to school. And also the money decided to support the income generating activity and giving free healthcare for the whole villagers. So this is one of the thing that finally in this particular village there are more than 200 students that are sent to school supporting by the village fund. So there is another very positive impact that village already have the capability to build very small clinic healthcare so the community doesn't have to walk 13 or 14 kms away outside to get

the healthcare support. And the money also providing seed capital for very small entrepreneurs in the village level who want to start their businesses.

Finally when they decided how the money that the small number has to go to the proper beneficiaries, they have a meeting. They have a meeting so the poor one is people who doesn't have land, doesn't have capital to start the business, cannot afford higher education, so they don't have a job. So they are the first beneficiaries.

But what can we do with all of this? What is very important, we have 4 aspect. So you can see that the four aspect is the community has to own, to operate, and maintain the power plant, and also using local renewable energy resources. Decentralized power generation has to be put in the government policy. This is very important. And also with that system the demand control is easily can be applied. People doesn't have to use all resources because they have to control because they have to remember that other people need an energy.

To be able to run this 4 important aspect we have to have a paradigm changes. From the paternalistic like father to their kids, what is happening now. Patronizing. The boss to their labor. External will has to be changed into the internal passion and have the support from the outside. All of you can be a support to make the local people have the passion to build and develop themselves. Expert know the best. This is what usually happening now because we are the boss so we know what is the best. But we have to change this to mutual learning because they have also their own capability. And then expert imposing for correction, fixing, and improvement. Because I know the best, I'm an engineer, I do everything. But this has to be changed, partnership in problem solving. Authoritarian emphasis and top-down solution is no longer can be applied. We have to be interacted with local community, have a discussion and building consensus.

Passive compliance to external suggestion. We ask them to listen, but this is different. Active participation and economic, you know, and decision making process is very important to be applied. Exclusive technology has to be replaced by local and scientific knowledge. Also, technology transfer has to be changed to sharing appropriate technology. And, external control development become village control development. And the local elites dominance to be changed to local team building. Hopefully with all this changes paradigm, the red color – give instruction all the time – can be changed to we are more quiet and listen to what are the community want. Ok, this is very important.

And, finally, I would like to say that there are risks and cost to a program of action. But there are far less than long range risk and cost of comfortable inaction. This is what the late President of the United States, John F. Kennedy, stated in the first place. People centered economy is power to the people.

9. Life is About Sharing: An Oral History with Tri Mumpuni (Ashoka, 2014)

My parents never stop us to just to be what we are. Never ask me, be this, be there, you know. It's just you can be whatever you like to be, but only one thing, make your life useful for other people. The way I remember growing up 7 siblings, so 8 children

in my family. I'm the third. I remember how busy we are when we were kids because we have so many siblings. We just really good. Because what I feel is that we learn how to share, we learn how to tolerance. And the way my mom and dad showing us what life is so much interesting. And I inherited what they think about life. My father always telling us, life is about sharing. Sharing is very important. And my mom is always telling me, life is about giving. To give.

When I was kids, I love travelling. And I love the nature even though I was born in the city. Like whenever there was school holiday, I was always going to the country side. I love to see the river flow, you know the water. I love trees, I love mountains. This is one thing that my childhood I spend.

There is a big eclipse in Indonesia in 1983. So I enjoyed it very much. Being in the zoo to observe what is the behavior of the animal when there is a dark. It's noon, 12 o'clock. Suddenly the sun eclipse, you know. Phsstt... And very dark in a few second. And all the animal was behave very strangely, you know. Like they think it's very early in the morning, you know. Dark and then become early in the morning because of those changes. The phenomena is so interesting for me. Wow, how nature affected not only the human beings, the animals, everything. Then I got an invitation because I'm the winner of the scientific competition, so I'm entitled to enter the Bogor Agriculture University. I want to be an agriculture engineer which is also very useful because I can do rural development. I can still be in the village, not to become a doctor but giving them energy. Working with them to set up, to prepare the community, to understand the technology, especially renewable energy for their rural electrification.

I saw global poverty occur because the community are disconnected with their local resources. Yea, IBEKA was found in 1992. We want to provide electricity from renewable energy that is so close located in their surrounding. To make it sustainable is our first priority. It's by giving a training, by empowering the local community, so that the community understand what is technology. How they can handle it. In many villages, the money from the electricity sales goes back to the community in form of, let's say, village development fund to give scholarship to the poor kids so that they can go to school.

When you realize and understand that you have to do something good. And you have to start from the very small steps. Because the big thing starting with one step. And failure is very common. When you fall, wake up and stand up. It's just repetition, but then you become strong. And you can achieve your goal that you are really dreaming on.

We have to creating young generation who are thinking what is the best for our community, our society, and hopefully for our nations.

10. Lessons from 'Asian Nobel': Indonesia's Tri Mumpuni (GMA News, 2011)

I've been visiting rural area in the Philippines and we share the similar problems in electrification. But I think if IBEKA concept, you know, bringing the technology to the local community and preparing the local community, not only technical aspect but

also socially prepared so this technology can be easily handled by them. We give a training, we make them understood very well the system. Then this is will be a very good source of electricity and will be run sustainably. This is the best challenge and I'm sure we can do it. We can do it together on the Philippines already learn from us. I think this is the best time to make things happen.

Well, talking about corruption. Indonesia and the Philippines are similar. I know the situation. But the best thing is you should find an organization that can work independently. Fund raising, try to find the money not only from the government but from different sources. We have AYALA, you know, maybe AYALA can share their wealth through their corporate social responsibility. You can ask LOPEZ, you can ask many donor agencies and bring the money to the poor of the Philippines in the rural area and build a good project and become a best practice and become an example so the government will realize how to do the good things with the local community. I think this is exactly what I do in Indonesia.

11. IYCS Tri Mumpuni (Indonesian Changemakers, 2012)

(02:55)

Cara investasi sekarang ini hanya bertumpu kepada kaidah-kaidah finansial atau keuangan dan industri saja. Coba diakui. Di sini ada bankers, ada bang Sandi, ada koperasi. Ini loh yang menciptakan saudara-saudara kita di Bangka Belitung. Padahal cara investasi itu juga harus berpikir kaidah-kaidah lain, yaitu rasa keadilan untuk penduduk lokal, dengan budaya setempat, keselarasan dengan lingkungan dan alam setempat. Itu penting. Ini selalu dipertanyakan. Dan seolah-olah belum ada jawaban dan saya yakin di tangan kalian jawaban itu bisa didapatkan.

Saya akan lihat. Ada dua cara investasi yang selama ini terjadi dan ada benang merah yang membedakan, yaitu kewirausahaan komersial dan kewirausahaan sosial. Kita lihat kewirausahaan sosial, aktifitasnya adalah bisnis komersial. Ini. Bisnis komersial ini tentunya menggunakan paradigma dominasi investasi. Coba, bisa kita lihat. Sementara kalo kewirausahaan sosial itu aktifitasnya bisnis sosial. Kalau kita lihat lebih detil lagi, di dalam kewirausahaan komersial paradigmanya dominasi investor karena bisnisnya komersial. Sementara bisnis sosial paradigmanya adalah bermitra dengan masyarakat. Kemitraan dengan masyarakat untuk mendapatkan benefit yang sebesar-besarnya dan yang dilakukan bisnisnya bisnis sosial di mana kaidah-kaidah itu memenuhi rasa keadilan masyarakat lokal, setempat, di mana resources ada. Juga tidak melupakan keselarasan dengan adat-istiadat lokal dan keselarasan dengan lingkungan maupun alam setempat.

(13:00)

Bagaimana sih filosofi kemitraan dengan masyarakat? Sederhana. Ini sering diomongkan, saya mau cepat saja. Setiap individu memiliki kemampuan untuk self-development. Untuk tumbuh. Ngga mungkin bang Rene tiba-tiba jadi segede ini. Saya agak kaget juga. Pasti pernah bayi. Semua yang di sini pasti pernah bayi. Toh, anda mampu tumbuh seperti sekarang. Menjadi Sandiaga Uno, gitu ya, menjadi Goris Mustakim. Itu karena you have your own self development. Ini yang penting.

Sehingga kita pun juga harus melihat masyarakat mampu melakukan pembangunan mereka sendiri. Yang perlu kita berikan kepada mereka adalah trust. Saya sering mendengar orang bilang, apakah mereka mampu? Banyak bupati yang bilang, bu mumpuni, bu mumpuni yakin masyarakat bisa? Dibalik pertanyaannya. Bagaimana sebagai pemimpin anda memampukan masyarakat bukan questioning apakah mereka mampu. Kalau anda mempunyai kepercayaan, you build trust, rakyat juga akan memberikan trust itu kepada anda.

Terus yang kedua, kita berbicara kemiskinan. Kemiskinan itu hanya symptom. It's not the real problem. Itu symptom gitu. Akar atau virus masalahnya ada di mana? Ada dicabutnya si local resources yang menjadi sandaran hidup orang lokal. Itu that's the biggest virus. Penyakitnya di situ yang harus kita obati. Caranya bagaimana? Menghubungkan kembali, reconnecting local resources dengan local community. Itu menjadi sangat penting. Kalau ini, dua filosofi ini bisa kita kerjakan, insya Allah, untuk memakmurkan bangsa Indonesia tidak terlalu sulit.

Bagaimana sih metode bermitra dengan masyarakat? Ada tiga pilar yang sangat penting. Yang pertama saya sering bilang ya unlock, ya, kita membuka kunci, ya, potensi, ya, potensi dan kemampuan masyarakat lokal. Tentu anda tahu caranya, kalau tidak tahu kita bisa diskusi lebih panjang di luar stage di sini. Mendorong aspirasi dan cara pembangunan masyarakat lokal. Dan yang terakhir dan penting adalah mengawal proses pembangunan diri masyarakat dengan cara yang benar. Ketiga hal ini menjadi kata kunci yang sangat penting yang harus kita ingat.

12. Tips Berbagi Mimpi Ala Tri Mumpuni (Aquan, 2012)

“Seperti saya kalau sekarang ini sudah scope international itu banyak sekali lembaga-lembaga yang datang dan pertanyaannya sederhana. Kalau saya mati, dia selalu bilang begitu, kalau bukan kamu terus siapa. Nah, ini kata-kata yang harus kita buktikan. Apa yang kita lakukan akhirnya tadi, kita harus menjual ide kita. Menjualnya seperti apa?” “Kalau misalnya ini secara konsisten dilakukan, itu kalau bahasa inggrisnya istiqamah, konsisten terus menerus dikerjakan, itu memberi dampak”

“Apa sih? Mengerjakan apa? Seperti Mas Asep bilang, banyak sebetulnya. Itu yang pertama, di-reconnect dengan resources sehingga mereka bisa mereplikasi di tempat lain atau ada orang lain yang bisa menyontoh. Itu pertama ya, jadi jangan pernah berhenti untuk selalu membagi ilmu. Tiga hal penting ya dalam hidup. Bagi rejeki tambah kaya, bagi senyum tambah bahagia, dan bagi ilmu tambah pintar. Jadi terus membagi itu nanti akan banyak pengikutnya. Nah kemudian yang menjadi kata kunci di sini adalah masalah uang. Aduh, Pak, ngga ada dananya. Itu keliru. Karena saya yakin semangat yang tinggi itu menghasilkan dan mendatangkan uang. Jadi kerja saja. Ada orang yang datang tiba-tiba, susah ya saya harus bercerita. Tapi, percaya atau ngga percaya, kadang kita bikin yang kecil-kecil tiba-tiba orang datang ibu-ibu ngga tua dari mana gitu. Saya mengenal ibu, saya melihat di tv, terus saya melihat apa yang ibu kerjakan. Dia menyerahkan emas. Seperempat kilo. Muati saya. Terus diapakan? Saya ngga punya apa-apa. Baru sekali ini saya melihat mas batangan.”

“Terus saya tuh ngga sengaja ya, di Qatar waktu itu pulang dari New York. Ketemu sama para TKW semua, ya saya traktir minum lah. Saya sampai di rumah kaget saya buka email. TKW itu semua mengumpulkan uang. Mau di kirim, Bu saya minta dong nomor rekening ibu. Saya ingin mengirim ibu karena saya yakin uang itu sampai ibu akan bermanfaat buat masyarakat yang hidupnya dalam kegelapan. Saya mah bukannya seneng saya malah nangis. Bayangkan sih TKW yang disiksa di sana memikirkan desanya untuk dibangun dan dia .. dari uang-uang temennya. Ngga masuk akal.”

“Saya bersyukur sama temen-temen media di sini yang perannya luar biasa. Anda itu saya bilang menjadi pahlawan karena tangan anda dan tulisan anda. Sebarkanlah yang juga memberi semangat.... Expose lah juga orang-orang yang memberi inspirasi dan jadikanlah untuk Indonesia sekarang ini sederhana itu menjadi trend orang yang bangga. Orang sekarang bangga kan, social entrepreneur itu bangga. Terus apa namanya itu bisa berbuat untuk orang lain itu bangga. Tapi cobalah, hidup sederhana itu juga bangga.”

13. Membangun Indonesia yang Kreatif dan Inovatif - Bersama Tri Mumpuni dan Nia Dinata (Untuk NKRI, 2014a)

(04:00)

“Yang dicita-citakan bapak pendiri bangsa kita dulu adalah ekonomi yang penuh keadilan hingga setiap warga Negara punya akses yang sama terhadap sumber daya alam yang sudah dianugerahkan oleh Allah kepada kita. Nah di sini kita butuhkan seorang pemimpin yang kreatif dan inovatif. Sehingga apapun program dan kegiatan yang mereka buat itu bisa memberikan kemakmuran yang sebesar-besarnya, seluas-luasnya buat seluruh bangsa Indonesia.”

(12:00)

“Orang kan selalu bilang modal itu ada bilang yang natural resources capital, gitu ya, modal sumber daya alam kita, terus ini yang paling penting modal sosial individu seperti (Nia) misalnya cukup kreatif atau anak-anak muda yang melakukan social business zaman-zaman itu banyak. Tapi yang penting banget untuk bangsa kita adalah modal sosial. Kenapa? Modal sosial itu ya yang kita katakana tadi. Orang tiba-tiba berinisiatif untuk melakukan sesuatu dengan hati penuh kebahagiaan tanpa dibayar, tanpa pamrih tanpa dibayar. Saya sering dibilang sama temen, ah omong kosong pasti kan ngga ada orang yang tanpa pamrih. Lah, kita jangan pernah ya memasang atau mind set atau mental model kita ya ke mental model orang lain. Jadi jangan memaksakan sepatumu ya. Saya masih punya keyakinan anak-anak muda sekarang ini banyak sekali yang kreatif, banyak sekali mengeluarkan ide-ide spektakulernya...”

(20:00)

“Sebetulnya masyarakat atau community adalah sekumpulan orang-orang ya, circle of sharing. Itu pendapat saya, circle of sharing and giving, di mana di situ eh bentuk society itu masyarakat kita ini, ekonomi itu ekonomi kreatif, atau co-creation di mana ada agrarism, di situ terus ya selain kita mempunyai idealisme kita ingin juga ingin berbuat sesuatu yang bermanfaat. Semua anak-anak yang kreatif, itu saya saya yakini apa yang dia kerjakan di dalam aktifitasnya itu membuat pertumbuhan ekonomi ini menguntungkan banyak pihak

jadi dia tidak melulu hanya profit. Yakin dia dapet profit, tapi dia dapat benefit. Artinya apa? Di dalam usaha dia, berekonomi tadi itu, dalam berkegiatan melakukan sesuatu yang sangat disukainya dan dengan secinta-cintanya, passionate. Itu dia yakin dia mendapat keuntungan in the same time dia memberikan manfaat buat masyarakat banyak. Dan ini banyak kita lihat apa namanya anak-anak muda yang bahkan hal itu menuju ke arah sana gitu. Bagaimana kalo ini kita lakukan didukung oleh pemerintahan yang baru ini... “

(42:00)

“Saya itu punya keyakinan ya, teknologi yang sebaik apapun itu menurut definisi saya ya adalah teknologi yang bisa dibawa serendah-rendahnya yang compatible dengan kemampuan masyarakat. Jadi ditarik ke bawah sesuai dengan kemampuan masyarakat. Itu yang pertama. Yang kedua, ada yang namanya teknologi yang user friendly. Sehingga kita lihatlah, handphone itu, orang yang buta huruf pun juga bisa memakai handphone. Itu user friendly. Terus ada lagi yang memang kita harus punya effort ya, pemberdayaan, ini tentu ya. Artinya apa, kita me-leverage kemampuan rakyat, kita angkat sedikit, sehingga dia paham dan bisa tidak buta teknologi. Dia bisa paham. Ini yang penting. Saya ingin menggarisbawahi mumpung ngomong teknologi. Jadi untuk menguasai teknologi, rakyat harus diberdayakan. Saya paling ngga seneng denger kata-kata, wah rakyat itu harus dibantu. No. Kalau dibantu itu kesannya kami dapat dari kamu, dikasih, terus lebih rendah dari kita, dan seolah-olah pemerintah itu berkuasa. Tapi kalau kita diberdayakan, kita ada di posisi yang sejajar bahwa we have the right to empower our own people, kita punya kewajiban untuk memberdayakan rakyat kita, sehingga dia melek teknologi. Ini yang penting. Jangan pernah mengatakan bahwa rakyat harus dibantu. Itu anda menjadikan rakyat obyek sehingga muncul proyek-proyek seperti sekarang ini. Itu definisi saya kalau bicara teknologi itu penting buat rakyat, memang penting tapi rakyat harus diberdayakan untuk mampu menguasai teknologi.”

14. Tri Mumpuni: Mikrohidro Indonesia, Penerang Dunia (Green TV IPB, 2014)

Interview at Desa Cicadas, Subang, Jawa Barat.

MC : Beruntung ada seseorang yang berjiwa sosial tinggi bernama Tri Mumpuni.

Tidak hanya membangun pembangkit listrik tenaga air atau mikrohidro yang menerangi desa-desa, Tri Mumpuni juga memberdayakan penduduk setempat hingga dapat meningkatkan kualitas hidupnya. Dengan komitmen dan kecintaannya untuk berbagi dan membangun demi kehidupan yang lebih baik, Tri Mumpuni bergerak seperti air yang mengalir.

MC : Ibu, saya ini ingin sekali mendapatkan informasi sekitar mikrohidro. Yang tentu saja itu sudah Ibu rintis sejak dahulu ya Bu ya. Kalau boleh cerita nih bu ya, katanya sudah ada 60 daerah lebih bahkan yang sudah Ibu bina agar mereka mendapatkan aliran listrik. Apa sih faktor pendorong atau latar belakang dari apa yang Ibu lakukan tersebut?

- P : Karena Indonesia ini Negara yang sangat berlimpah sumber airnya. Kita dirahmati Allah lah punya gunung, punya hutan. Dan khusus untuk mikrohidro ini kita lihat banyak sekali daerah-daerah yang secara geografis memang memungkinkan untuk dibangunnya mikrohidro. Karena apa? Karena kita melihat banyak sungai, terus juga ada beda ketinggian karena kita kan, mikrohidro itu, dari sungai yang punya ketinggian sehingga kita bisa ambil, kita diverted gitu ya untuk airnya bisa dibangkitkan menjadi energi listrik. Nah, yang lebih cocoknya lagi, daerah-daerah di mana ada sungai, ada hutan, dan geografisnya yang sulit itu, kita banyak sekali penduduk yang tinggal dan masih dalam kegelapan. Nah, ya alhamdulillah kita dirahmati Allah sedikit ilmu lah yang bisa kita dibagi yaitu membuat listrik, pembangkit listrik dari tenaga air mini atau mikrohidro yang kecil skalanya. Ini kita pikir kenapa ngga kita lakukan. Jadi kan cara kita bersyukur dan menikmati rahmat dari Allah itu kalau kita bisa berbuat sesuatu untuk orang lain. Saya melihat situasi seperti itu, ada di satu sisi ada sumber daya, di satu sisi ada kebutuhan masyarakat. Kenapa kita ngga kawinkan. Dan saya merasa inilah yang, insya Allah, saya ingin menjadi sebuah kenangan dalam hidup saya bahwa saya ingin hidup saya bermanfaat bagi orang lain.
- MC : Bermanfaat bagi orang lain. Kalau boleh tahu, itu sejak kapan Ibu mengembangkan mikrohidro itu sendiri dan bagaimana syarat dan juga proses kerjanya mikrohidro itu sendiri bu?
- P : Okay. Sebetulnya yang mengawali kegiatan mikrohidro itu adalah suami saya. Karena dia dari universitas yang backgroundnya teknik. Terus saya melihat mikrohidro ini sebetulnya menjadi alat yang sangat kuat atau bahasa kerennya very powerful tool untuk mengembangkan ketenagalistrikan yang berbasis masyarakat. Bisa untuk memicu munculnya kegiatan-kegiatan ekonomi di pedesaan. Intinya pokoknya bisa memakmurkan rakyatlah gitu dengan mikrohidro ini.
- MC : Bermanfaat untuk orang banyak ya bu ya.
- P : Betul. Jadi di awal tahun 90an saya melihat bagaimana suami saya itu dengan ini ya, kita bilang ya, pertama kali dia men-design kemudian dia menerapkan terus saya lihat, oh ini bukan hanya bisa dikerjakan oleh dia, gitu loh. Saya pikir saya harus all out turun untuk membuat ini bisa dinikmati tidak hanya oleh satu-dua desa tetapi, mimpinya dulu sih seribu desa. Tapi kan tidak semudah itu ya. Dan kerja mikrohidro itu sederhana. Karena kita melihat ada sungai yang mengalir dari ketinggian ke tempat yang agak lebih rendah,... (explanation how micrhydro work)...
Meskipun ini teknologinya itu bisa dikatakan high technology gitu ya, teknologi yang tinggi, tapi user friendly karena kita bisa mengajarkan semua tahapan dari mulai perencanaan sampai pembangunan mikrohidro ini kepada rakyat. Ini yang menarik dan ini yang saya pikir kalau kita sungu mengerjakannya, dengan cara yang benar, itu akan membuat bangsa Indonesia ini mempunyai ketahanan energy yang luar biasa.

- MC : Luar biasa, itu katanya ya bu ya. Okay. Kabarnya, beritanya, saya dengar-dengar ya bu ya, ibu tidak hanya katanya membantu warga masyarakat yang ada di daerah Indonesia, ternyata sampai juga ke Negara filipin dan juga ke Negara afrika dalam melakukan kegiatan ini. Bisa cerita bu seputar kegiatan tersebut?
- P : Gini, apa yang kita lakukan ini kan sesuatu hal yang konkrit, bermanfaat, mudah direplikasi, dan bisalah dikerjakan oleh siapa saja gitu. Tapi harus melalui kaidah-kaidah yang benar. Model, saya bilang, model yang dikembangkan oleh IBEKA itu lembaga kita itu dianggap unique. Muncullah keinginan dan permintaan dari banyak Negara. Diawali pada saat saya melakukan presentasi di dalam kegiatan namanya Commission of Sustainable Development itu di New York tahun dua ribu sekian ya, 2005 atau 2006, saya agak lupa, itu saya melakukan presentasi say beritahu beberapa model-model pengembangan masyarakat bagaimana teknik itu tidak cukup hanya dengan teknik tapi harus ada yang namanya persiapan sosial. Karena membangun itu membangun manusia. Nah, di situlah banyak pihak tertarik. Tapi yang saya kaget justru malah pemerintah Jepang itu langsung memberi respon, saya ingin IBEKA ya, Puni dan timnya untuk datang untuk membangun di filipin. Jangan hanya membangun, saya bilang begitu, kita harus mengajari orang local untuk bisa membuat sendiri. Prinsip kita adalah kita ingin teknologi ini dibuat sedekat mungkin dengan masyarakat, itu baru namanya teknologi yang bermanfaat.
- MC : Kalau di Afrikanya sendiri bagaimana bu?
- P : Terus di Afrika kita didukung oleh Departemen Luar Negeri Indonesia untuk mendatangkan orang-orang dari Asia Pasifik dan Afrika. Datang ke sini untuk belajar. Kita terus terang mengajari mereka sampai lima kali. Terus yang terakhir sungguh sangat menarik, tahun lalu lagi-lagi pemerintah Jepang punya uang bagaimana kalau ilmu yang dimiliki oleh IBEKA ini, dipimpin langsung oleh suami saya, Pak Iskandar ya, untuk datang ke Rwanda. Kemudian tahapan berikutnya nanti mereka harus membangun. Dan setelah mereka membangun kita harus mensupervisi. Mudah-mudahan setelah Rwanda, ini yang sangat menunggu ini Kenya. Abis Kenya mungkin Cameroon. Kira-kira seperti itu.
- MC : Masih banyak ternyata Negara-negara yang mengantri bu ya untuk sekedar belajar. Ibu, kalau mendengar cerita sangat menarik sekali, tentunya tidak terlepas dari yang namanya suka dan duka bagaimana mengajarkan, bagaimana juga berkomunikasi dengan orang luar. Itu suka duka dalam mengembangkan mikrohidro itu sendiri seperti apa sih bu?
- P : Suka dukanya itu banyak sekali. Yang paling menarik orang selalu, khususnya orang-orang senior ya, senior dan juga merasa dia sebagai insinyur mesin maupun insinyur elektro gitu loh, saya ini kan lulusan SosEk, jadi SosEk IPB lagi, Institut Pertanian Bogor. Itu dibidang fleksibel banget tapi oke. Apapun bisa. Saya melihat di sini itu yang

dipake bukan masalah kamu lulusan apa, tapi apakah kamu punya keinginan yang kuat untuk belajar sesuatu. Jadi diawali waktu saya ikut suami saya belajar mikrohidro di Swiss. Suami saya dari ITB terus dia belajar mikrohidro di Swiss saya ikut. Dan menarik sekali, dan ngga terlalu sulit untuk dipahami gitu. Asal jangan bicara detail, saya disuruh kayak anak mesin ya saya ngga bisa. Nah ternyata saya harus menjelaskan kepada semua orang karena mereka mengira saya insinyur elektro. Mereka mengira saya insinyur mesin. Berulang-ulang. Ini menunjukkan bahwa orang itu masih mengkotak-kotakkan ilmu. Ini buat saya sebuah challenge yang harus saya jelaskan. Oke, saya anak sosial ekonomi pertanian IPB. Tapi apa, yang penting kita punya niat. Punya komitmen yang tinggi, kita fokus mencintai pekerjaan itu, jadilah apa yang menurut orang lain tidak mungkin. Itu suka dukanya ya orang selalu mempertanyakan. Nah ini challenge yang paling besar buat saya sekarang ini adalah, ya itu, mental model yang sudah keliru dari awal. Agak terganggu kegiatan saya.

Dan aparat itu sering berantem dengan saya karena saya bilang ini program programnya rakyat. Tidak perlu ada uang pengamanan. Proyek dari pemerintah itu harusnya dianggap sebagai tools, sebagai alat, bagi pemerintah untuk membangun rakyatnya. Tapi mental model para birokrat kita bahwa proyek itu uang. Ini yang repot. Ini PR saya. Jadi kalau bicara tentang pemberdayaan, jangan hanya rakyat yang diberdayakan, tetapi birokrat, di level bawah pun harus juga diberdayakan agar bisa berubah mental modelnya. Bahwa hidup itu harus berbagi dan bermanfaat bagi orang banyak, apalagi dia amanahnya kan harus melakukan pembangunan untuk pemakmuran rakyat.

MC : Seperti itu ya. Dari tadi saya mendengar bahwa ternyata kecintaan Ibu terhadap pekerjaan ini banyak juga mendapatkan apresiasi berupa penghargaan. Kalau tidak salah tahun 2011 kemarin ada (Magsey) ya bu ya yang dari filipin. Kemudian emarin Mei tahun 2012, ada Ashden award dari Inggris. Boleh cerita bu seputar penghargaan yang Ibu terima?

P : Ah, lucu sebetulnya. Karena itulah ya, saya ngga pernah bermimpi dan ngga pernah berharap. Karena Magsay award itu kan dianggap ya agak prestigious itu yak arena memang itu milihnya itu kan kita ngga pernah tahu.

MC : Apalagi dari luar ya bu ya.

P : Ya, dari pemerintah luar. Terus yang terakhir dari pemerintah Inggris ya dari Ashden award. Sebetulnya lembaga swadaya masyarakat mereka tapi dibawah bimbingannya Pangeran Charles kan. Yah saya pikir ini saya tunjukkan kepada orang-orang maupun kepada staff. Awalnya saya agak, tssss, kenapa sih harus diberi penghargaan, tapi lama-lama saya berpikir, ini sebetulnya hanya untuk menginspire orang agar dia melakukan hal yang sama dengan yang saya lakukan. Anda bisa bayangkan ya kalau orang mau melakukan apa yang saya lakukan ini, jumlahnya ngga usah

banyak-banyak deh, sepuluh aja, persoalan pelistrikan yang gelap gulita ini teratasi. Bener. Pokoknya, fokus, committed ya, istiqamah ya kalo kita bilang ya istilahnya committed itu istiqamah ya. Terus kalo gagal bangun lagi, kena halangan bangun lagi, pokoknya intinya satu, cintailah pekerjaan itu.

- MC : Cintai pekerjaan itu. Itu poinnya ya bu ya.
- P : Dekatilah masyarakat sehingga kamu mendapatkan banyak hal. Jadi, alam itu sudah ngatur. Ngga usah terlalu pinter lah, tapi kalau kamu mau mendekatkan dirimu kepada masyarakat jadi semua ilmu masyarakat itu akan tahu-tahu ada di otak kita.
- MC : Ok. Pernah ngga sih terpikirkan hingga jadi sekarang ini bu? Menjadi sesuatu yang besar.
- P : Sama sekali tidak. Apalagi ini kan dulu yang mengawali suami saya. Saya merasa bahwa memilih jodoh, walaupun itu merupakan hak prerogative Allah, tapi jodoh yang bener itu akan membawa kita ke arah mana. Jadi saya merasa dengan suami saya itu super posisi positif kalau bahasa tekniknya gitu, saling mendukung. Saya merasa dialah yang membuat saya semakin berani, memanfaatkan ilmu mikrohidro yang dia rancang untuk dipake sebagai alat memakmurkan orang-orang di pedesaan. Jadi pesen saya kepada anak-anak muda itu hati-hati dan pandai-pandailah memilih jodoh. Karena itu menentukan masa depan kehidupan kalian.
- MC : Saya denger sosok suami yang terus disebutkan. Apakah memang sosok suami ibu ini yang banyak berpengaruh terhadap apa yang Ibu lakukan?
- P : Waktu kecil tentunya orang tua, tapi bertemu dengan dia hidup kita ini habis hanya untuk punya mimpi. Kita selalu bilang we have so many babies gitu ya, kita punya banyak bayi-bayi yang harus ditumbuhkan. Awalnya itu saya bilang mikrohidro ini bayi kita nih, jadi harus betul-betul bermanfaat. Terus sekarang ada baby baru, itu yang namanya social business. Kita ingin agar orang-orang dan anak-anak muda itu paham bener social business itu apa. Social business adalah sebuah kegiatan ya yang bisa mengatasi persoalan-persoalan sosial masyarakat tapi di satu sisi kita mendapatkan keuntungan. Jadi membuat kita kaya dengan cara membuat orang lain kaya, itu hukumnya halal dan sah-sah saja. Harusnya begitu, ngga boleh kita nolong orang terus kita jadi miskin. Itu sangat keliru.
- MC : Ok seperti itu. Ngomong-ngomong nih bu soal harapan, tadi ibu juga sudah sedikit banyak harapan kepada anak muda. Harapan ibu sendiri terhadap pengembangan dari mikrohidro itu sendiri untuk ke depannya seperti apa bu?
- P : Harapan saya mikrohidro ini harus dibangun dengan benar. Ya, ada orang yang mau sungguh-sungguh mau membangun mikrohidro itu

dengan pendekatan bahwa mikrohidro ini adalah alat untuk memakmurkan rakyat. Kalau mau membangun mikrohidro, rakyat harus mengerti bagaimana cara kerjanya, tahu cara mengoperasikan, mengelola dengan baik dan merawat. Karena sebetulnya di banyak Negara yang sudah saya kunjungi, mikrohidronya bisa lebih dari 100 tahun karena dirawat dan memberikan manfaat bener-bener buat masyarakatnya. Kira-kira itu.

MC : Terakhir mungkin pertanyaannya dari saya bu, tentunya ini pesan-pesan untuk sobat green di rumah. Apa sih yang ingin ibu sampaikan untuk sobat green yang menonton tayangan ini?

P : Saya hanya ingin nanti pemirsa ya, siapapun khususnya generasi muda, kalau melakukan sesuatu itu harus dengan ikhlas. Dengan ikhlas ngga usah berpikir reward segala macam. Kalau dilakukan dengan ikhlas, sungguh-sungguh, dan itu bisa mendatangkan manfaat untuk orang banyak, yakinlah Allah pasti memberikan balasan yang luar biasa. Ikhlas itu kuncinya. Ikhlas dan tulus harus menjadi dasar dari pekerjaan yang akan kita lakukan.

15. Inspirasi Kepemimpinan dari ibu Tri Mumpuni (WCKAMP.US, 2014)

“Orang yang paling baik itu kan orang yang mengetahui dirinya sendiri. Kira-kira potensi saya seperti apa, saya bisa berkontribusi seperti apa, bisa menakarlah. Yang paling penting pesen saya kita harus bisa menjadi orang yang mampu menakar dirinya sendiri. Ini penting banget. Jadi kalau merasa kurang harus menambah potensinya, gitu. Jangan sekolah saja sudah males pokoknya harus cum laude. Gimana mau cum laude, sekolah aja ngga pernah ini terus belajar ngga. Jadi penting banget ya karena saya melihat pemimpin kita di republik ini yang, bukan pemimpin ya, orang-orang yang kita yang lihat ingin menjadi pemimpin itu belum mampu menakar dirinya sendiri. Jadi mulailah dari generasi kalian mampu menjadi generasi yang bisa menakar dirinya sendiri.

Baik saya mulai saja dengan membangun kepercayaan publik. Tapi saya lebih seneng mengganti publik ini dengan kata-kata rakyat. Karena sehari-hari kita bergumul dan berkecimpung dengan rakyat dan ini penting apalagi masyarakat di kelas bawah ya selama ini sering kita temui, kalau masyarakat berkecukupan itu ngga usah dirawat itu, sudahlah, mereka bisa berjalan sendiri. Tapi alangkah dosa besarnya kita kalau Allah memberi posisi kita yang lebih, lebih ya dalam segala hal, punya provilige tetapi kita tidak sanggup mengurus orang-orang yang kondisinya termaginalkan, di bawah dari kita, dan ada sesuatu yang keliru dan tidak baik tapi kita diamankan, berarti ada yang salah dalam kehidupan kita.

Baik, apa sih sebetulnya membangun kepercayaan rakyat? Kita itu harus melihat ada dua hal yang penting. Ini yang terjadi di Negara kita. Gampang kan? Yang pertama itu menciptakan image. Mungkin kalian sering denger pencitraan dan itu sifatnya ngga abadi, sementara, temporer. Anda bisa kan? Apalagi medianya banyak. Ini semu dan

temporer. Ada meraih simpati public, melalui publikasi, pasang baliho, terus keluar di tv dengan janji-janji gitu, dan dengan sosial media. Sekarang banyak sekali konsultan-konsultan yang menyediakan upaya-upaya agar anda kelihatan hebat. Mereka lupa. Manusia hidup itu harus mempunyai rekam jejak. Penting nih. Kalau anda memilih pemimpin, lihatlah rekam jejak mereka. Track record. Ini yang penting banget. Kalau anda tahu rekam jejak seseorang, apakah dia istiqamah, bener-bener berjuang di situ, kita akan tahu. Sayangnya ini di Indonesia anda lihat yang pertama ini lagi marak.

Yang kedua, ini harapan saya kepada anak-anak saya di sini. Kalau memang kita ingin, gitu ya, jadi seorang leader, menjadi seorang pemimpin yang baik, kalian harus mampu menciptakan sejarah. Bung Karno menciptakan sejarah, Bung Hatta, Tan Malaka. Itu semua kita lihat. Menciptakan caranya bagaimana? Itu kegiatan yang intrinsic dan permanen. Sampe kiamat atau sampai kapanpun orang ngga bisa menghapus Soekarno dari sejarah Indonesia. Berarti sudah masuk intrinsic ke dalam bangsa ini. Secara permanen dia ada dan dia menciptakan sejarah itu. Dan itu biasanya ada tiga hal yang penting yang harus dilihat. Tadi sudah saya katakana kita harus selalu berpihak kepada kaum yang termarjinalkan. Kalau and abaca bukunya Dr. Ali Syahyadi ya banyaklah buku-buku referensi yang bagus-bagus apalagi di sini saya lihat ada ukhti-ukhti dan ikhwan-ikhwan. Itu pasti sering baca buku-buku yang bagus ya sejarah Islam dan sebagainya. Kalau kita ingin mendekati Allah, intinya apa sih? Kita mendekati kepada orang-orang yang duafa, yang terzalimi, dan kalau kita bekerja dengan mereka, doa kita dijaga Allah, tidak bersekut kepada Tuhan. Jadi berpihak itu penting kepada pihak yang termarjinalkan.

Yang kedua, jangan lupa, di sini juga ditulis. Anda harus punya kompetensi. Tanpa kompetensi ya, sorry to say, anda ngga bisa apa-apa. Saya itu seneng banget dengan bahasa jawa loh. Kalau menggambarkan sesuatu itu sangat exaggerated kalau inggrisnya. Kalau kamu hanya sebagai generasi yang plonga-plongo, pah poh ngah ngok, itu kan menyebabkan orang itu, Masya Alloh, itu kan susah. Coba kalian cari bahasa lain. Ngga ada. Itu kan orang yang hopeless. Kita harus punya kompetensi, di bidang apapun. Itu penting. Pemimpin juga harus punya kompetensi.

Nah yang ketiga, ini yang menjadi extra penting adalah integritas. Kita harus punya integritas. Kalau tiga hal ini insya Allah anda bisa jalani yang lain itu menjadi bumbu-bumbu ya, pengikutnya. Kalau punya integrity kan pasti anti disuap, terus tidak bisa diajak hanky panky business gitu ya.

Nah, ini jelas banget bedanya. Kalau yang di atas, ini lebih kepada keinginan duniawi ya. Napsu. Materi. Uang. Itu yang di atas. Ketahuan banget tujuan dan cita-citanya. Kalau yang di bawah bisa dilihat dengan jelas. Bahwa ini perlu sebuah ketulusan dan keikhlasan serta kerja keras. Sederhana loh sebetulnya kalau kita mau membuat atau menyederhanakan hidup ini. Apa sih, ngga usah muluk-muluk. Kerja keras dan bersyukur. Kalau kita bisa kerja keras terus dan bersyukur, ngga usah khawatir materi dateng sendiri. Dan bersyukur. Kalau engkau bersyukur dengan yang sedikit makan akan ditambahkan yang banyak. Oke, saya ngga akan berpanjang lebar tapi ini dilihat kalau yang di atas itu pakai logika, kalau yang di bawah anda menggunakan logika dan empati. Kerja dengan baik untuk mempunyai ketulusan atas apa yang kita lakukan buat orang banyak. Itu selalu menggunakan logika dan hati. Then inilah pemimpin sejati kita ya.

Next, kita mau melihat lebih sedikit ini ya, lebih sedikit detail begitu. Logika, empati dan pemimpin sejati. Hubungannya apa sih? Anda lihat di sini ya yang pertama itu orang harus punya logika. Kenapa anda disekolahkan oleh orang tua anda itu memang dididik logikanya. Tapi satu hal yang kita lupa yang harus kita punyai itu selain logika adalah empati. Digambarkan kan logika di situ tuh pengetahuan, segala macam, itu ya auranya dibuat bulat karena memang dengan logika itu orang kadang-kadang lupa memanfaatkan hatinya.

Manusia yang ideal adalah yang mampu mengkomunikasikan setiap saat apa yang ada di pikirannya dan merasakannya di hatinya. Ini otak dan hati itu harus selalu berkomunikasi. Iya kan? Jadi logika yang kita pake, mau berbuat sesuatu logically begini. Tapi dirasakan di hati, ini pantes ngga. Peka mikir, hati merasakan. Itu selalu harus berkomunikasi. Sehingga nanti kalau, ini anda lihat itu lama kelamaan menjadi kuning gitu ya (see presentation), itu menggambarkan otak kita karena kenapa dipilih warna kuning itu the highest ya, aura yang terbaik pada saat Sang Buddha mau menghadap kepada Yang Kuasa.

Ini jangan pernah lupa untuk selalu dikomunikasikan. Kalau teman-teman lebih tahu di sini, ada segumpal daging di dada kirimu. Kalau itu benar, maka benarlah hidupmu, kalau itu salah, salahlah hidupmu. Jadi ngga usah khawatir kalau ini bisa, insya Allah, sehari-hari apa namanya dipakai gitu, itu yang muncul itu common sense. Akal sehat manusia itu akan jalan. Kalau orang sudah bisa jalan dengan akal sehatnya, allhamdulillah, insya Allah bisa menjadi rahmat dari alam ini. Karena selalu menggunakan logika dan hatinya. Ngga ada yang timpang.

Okay, nah dengan akal sehat ini, kita bisa membaca Indonesia dengan baik. Sehingga kita tahu persis kepentingan bangsa dan negara kita. Itu loh maknanya jadi pemimpin ini, kita harus membaca, mampu membaca Indonesia dengan baik. Okay, Nah, jelas. Kalau tanpa empati, hanya menggunakan logika saja kembali orang itu menjadi gelap. Apa yang terjadi? Kita ngga punya akal sehat, ujung-ujungnya membajak Indonesia untuk diri sendiri. Tidak dibaca dengan baik tetapi membajak Indonesia untuk diri sendiri. Ini biasanya dilakukan orang-orang yang memang mementingkan golongan. Saya ngga usah sebutkan tapi anda bisa baca sendiri. Banyak terjai dan mudah-mudahan ini tidak akan terulang, gitu ya. Jadi, sekarang lihat, kalau untuk kepentingan golongan, perusahaan dan partai-partai politik, ini contoh konkrit. Saya selalu ingin memberi contoh. Ini filmnya 5 menit, mudah-mudahan waktu saya cukup, 5 menit coba ini di klik di MIFEE. Ini contoh konkrit apa yang terjadi di negara kita. (Video error – can't show the video) Bagaimana rakyat di sana itu, di Papua, menjadi sangat tidak bermartabat.

Jadi intinya di dalam MIFEE itu, well, masyarakat Indonesia itu kan sudah punya caranya sendiri. Jadi Allah itu sudah menyediakan sumber daya lokal, dari Adam sampai sekarang masih terjadi, ada masyarakat lokal. Masyarakat lokal dan sumber daya lokal ini selalu ada yang namanya hubungan simbiosis mutualistis. Saling menguntungkan. Rakyat memanfaatkan sumber daya lokal sekaligus menjaganya dan sumber daya lokal ini memberikan keuntungan buat masyarakat lokal. Itu disediakan. Tapi apa yang terjadi, sekarang ini banyak sekali yang namanya disconnection. Putuslah hubungan masyarakat dan sumber daya lokal tersebut. Yang muncul apa

coba? Kemiskinan. Saya ngga usah menyebutkan, tapi contohnya sudah terlalu banyak. Ada kasus ---, kasus ---, segala macem karena memang oke, (video shown).

Tugas kalian adalah membuat ini menjadi sebuah kenyataan. Masyarakat lokal Indonesia sebaiknya juga mendapatkan manfaat dari sumber daya yang ada di situ.

16. Tupperware SheCAN! Tri Mumpuni-Part 1 of 3 (Tupperware She CAN, 2010)

(03:14)

“Alhamdulillah setelah ada pembangkit ini ada dana bantuan buat masyarakat yang dikelola sama koperasi Mekar Sari yang ada di Desa Cinta Mekar. Ya itu, hasil dari pembangunan itu untuk masyarakat Desa Cinta Mekar sebagian, 20% dari bagian penghasilan itu.” (Yuyun Yuningsih, pengurus Koperasi Desa Cinta Mekar).

Tetapi listrik bukan menjadi tujuan utama Tri Mumpuni dan tim. Dengan adanya listrik mereka berupaya membantu membangun potensi desa agar penduduk desa dapat berkegiatan sehingga dapat melakukan perbaikan dalam hal perekonomian.

“Sebelumnya ada pembangkit listrik di sini, orang-orang sini kelantir, kelantar semuanya. Sesudahnya ada pembangkit listrik, sampai sekarang orang-orang petani itu ngga bakalan susah. Subur, makmur. Ada untuk anak-anak sekolah itu beasiswanya ada dari pembangkit listrik ini. Orang-orang sakit biarpun itu katanya orang mampu, orang tidak mampu dikasih dari sini, penghasilan dari pembangkit listrik.” (Maman, warga Desa Cinta Mekar)

Banyak sudah masyarakat yang selama ini tidak tersentuh akhirnya bisa merasakan manfaat dari apa yang telah diupayakan oleh seorang Tri Mumpuni. Sebuah sumber penerangan yang menerangi perkampungan serta masa depan mereka.

(05:28)

Mikro hidro otinya sebetulnya teknologi yang sangat lama. Memang dari Eropa sudah lama dikembangkan. Nah kemudian ini keistimewaannya adalah Indonesia ini dirahmati oleh Allah banyak sekali sumber-sumber air ya di sungai yang flow-nya bisa diatur dengan beda ketinggian, elevasi sungai, sehingga ini bisa menghasilkan daya listrik. Dan indah lagi, sebenarnya kalau kita dengan hati membangunnya, artinya apa, rakyat dilibatkan, diajari, jadi justru yang kita sekarang ini galangan adalah bagaimana teknologi ini mendekati rakyat. Kita harus mendekati teknologi ini ke rakyat. Kalau kita bicara desentralisasi, kita bicara seluruh Indonesia, tidak mungkin kalo kita mau menggunakan single grid line, gitu ya. PLN, semua mengharap PLN. Susah karena kita memang ditakdirkan oleh Allah punya Negara dengan pulau-pulau terpencil. Ada yang, masya Allah nun jauh di sana, tapi mereka juga saudara kita di republic ini yang berhak untuk menikmati listrik.

Host “untuk berhak bersinar rumahnya”

Berhak bersinar, sehingga mikro hidro ini menjadi sebuah jawaban. Tapi asal dibangun dengan benar, didekatkan kepada rakyat teknologi ini, baru itu bisa berkesinambungan dan menciptakan kemandirian.

Problem di Aceh

Aceh itu punya kesan yang luar biasa buat saya karena Allah memberikan Aceh itu sumber daya lokal, gitu ya. Artinya tanah mereka begitu luar biasa subur, energinya begitu bisa banyak dibangun, sumber airnya juga luar biasa. Saya yakin kalau Aceh dikelola dengan baik, bisa menjadi daerah yang sangat makmur. Dan kemudian itu harus dinikmati rakyatnya. Nah, dan ada kisah, ya kisah sedih, tapi ngga apa-apa. It's part of, apa, sebuah perjalanan hidup, ya challenge gitu ya. Saya pikir ini cobaan dari Allah untuk ngetes bener ngga sih kamu ber-commit untuk bisa bersama-sama dengan rakyat apapun cobaan yang Aku berikan. Dan ini ya Alhamdulillah kita bisa melewati dengan baik. Sebetulnya kita ingin mengajak teman-teman mantan kombatan ya.

17. Tupperware SheCAN! Tri Mumpuni-Part 2 of 3 (TupperwareSheCAN, 2010b)

Dulu itu kenapa ada masalah sedikit di Aceh karena kan sebetulnya ada lah yang dibilang namanya mantan kombatan gitu ya yang di tersisih dari sebuah apa namanya mainstream pembangunan. Nah ini pemerintah itu baik sebetulnya. Waktu itu BRR ingin melibatkan mereka makanya mereka diajak, oke deh ke programnya saya gitu loh. Tapi tiba-tiba ya namanya manusia ya, mungkin ada khilaf segala macam, tapi sudah saya maafkan dan sudah saya lupakan. Memang saya sempat diajak piknik sama mereka di tengah hutan gitu ya. Selama waktu itu saya 15 jam, suami saya 35 jam. Waktu itu saya betul-betul ikhlas. Ya Allah ini the ultimate ya, cobaan yang luar biasa yang engkau berikan, tetapi alhamdulillah kita semua bisa menjalani.

(02:05)

“Menekuni kegiatan kemasyarakatan seperti yang kulakukan saat ini memang bukan hal yang baru bagiku. Sejak dulu memang aku sudah bekecimpung dalam program sosial, salah satunya adalah rumah untuk orang miskin di perkotaan. Sampai suatu ketika proyek pembangunan rumah itu harus digusur dan tanahnya digunakan untuk membangun proyek sebuah pusat perbelanjaan. Betapa kecewanya hati ini.”

“Barangkali dia pikir, ah lebih baik ikut suami aja. Membangun pedesaan yang interestnya jauh lebih kecil daripada interest-interest yang ada di perkotaan. Jadi itu terjadi kira-kira mungkin tahun 95-96. Gitu kira-kira” (Iskandar, Suami Tri Mumpuni).

Sampai suatu ketika suamiku meminta kesediaanku untuk mempresentasikan proposal dana listrik mikro hidro kepada pihakpenyandang dana. Aku sangat tertarik karena target yang dituju adalah warga pedesaan yang memiliki potensi berkembang. Dan sejak saat itu aku memutuskan berhenti dari pekerjaanku sebelumnya dan ikut mendirikan lembaga IBEKA, Institut Bisnis Ekonomi Kerakyatan, sekitar 18 tahun yang lalu.

“Jadi saya ini orang engineering, saya orang teknik. Istri saya lebih pada orang sosial. Jadi sebuah pekerjaan pembangunan desa itu pasti ada yang namanya bagian teknik, bikin infrastruktur, ngitung segala macam, itu bagian saya. Bagian mengorganisir masyarakat supaya masyarakatnya berperan, motivasinya meningkat, kepercayaan dirinya tumbuh, itu bagiannya dia.” (Iskandar, Suami Tri Mumpuni).

Desa-desa yang kami bantu biasanya desa terpencil yang tak jarang kami harus berjalan kaki selama 9 jam untuk mencapai tempat tersebut. Tahap pertama dalam pembangunan pembangkit listrik ini kami mulai dengan mengumpulkan data, lalu membuat rencana teknik, diikuti dengan menghitung rencana anggaran biaya. Setelah itu akulah yang bertugas membantu mencari bantuan dana dari luar yang kebanyakan adalah pihak asing. Setelah dana tersedia, barulah kami mengirim tim sosial yang akan memulai proses pembangunan komunitas dengan cara berdialog dengan penduduk setempat. Dari hasil dialog inilah akan terbentuk sekelompok penanggungjawab atas proyek pembangunan pembangkit listrik yang akan dijalani serta diawasi oleh mereka sendiri. Cara kerja yang kami terapkan ini sangatlah tepat, karena dengan begitu mereka akan menghargai hasil kerja mereka sendiri hingga pembangkit listrik akan terus terpelihara keberadaannya. Selain memberikan kebahagiaan bagi orang lain, keberhasilan program ini juga memerikan kebahagiaan bagi diriku dan suami. Dan aku akan terus berusaha untuk tidak akan pernah berhenti mencari tempat lain di sudut manapun di Negara ini untuk kuupayakan mendapatkan listrik sebagai alat bantu penggali potensi perekonomian bagi mereka.

“Saya masih ada 3,300 desa belum terlistriki. Pekerjaan kita masih banyak. Maju terus. Moga-moga kita diberkahi Allah.” (Iskandar, Suami Tri Mumpuni).

(10:00)

“Aduh, saya dibesarkan dengan keluarga yang besar. Kita 8 bersaudara dan yang saya bisa ingat dari kehidupan saya dengan orang tua saya adalah kita selalu berbagi dan kita selalu memberi. Saya merasakan di rumah itu selalu banyak orang-orang dari mana-mana. Saya bingung, ini saudara bukan? Bukan. Kenapa? Biarlah dia sekolah sama kita gitu. Aduh, padahal dalam hati saya kita sudah 8 bersaudara, gitu ya, masih ikut di rumah mpet-mpetan. Tapi ternyata sekarang setelah bapak tidak ada, kemudian apa namanya ibu juga udah tua, saya merasakan bahagia karena selalu ada orang datang yang sebetulnya dia bukan siapa-siapa.”

18. Tupperware SheCAN! Tri Mumpuni-Part 3 of 3 (TupperwareSheCAN, 2010c)

(01:55)

Saya hanya ingin berbagi dengan pemirsa bahwa apapun keadaan kita, kondisi kita, kalau kita punya niat mudah-mudahan hidup kita bisa selalu bermanfaat untuk orang lain. Yakini itu. Insya Allah jadi hidup kita jadi ada gunanya buat orang-orang di sekitar kita, minimal itu. Terus buat saya yang paling penting adalah sebuah nilai yang tidak bisa dirupiahkan berapapun kalau kita melihat desa-desa gelap menjadi terang, wajah orang-orang yang tadinya desperate, apa, menderita banget deh. Putus asa. Saya ingin bisa makan bersama keluarga saya di malam hari ada terang, bu, itu saja. Itu yang diomongkan saya tidak akan pernah lupa. Sama petani dari Dayak, gitu ya. Bukan petani lah, da perambah hutan gitu. Dia tinggalnya di hutan dan dia sangat kegelapan setiap hari itu. Terus kemudian setelah kita beri dia listrik dia bisa teriak, HAH. Seperti di pedalaman Sumatra Barat tahun 95 dia teriak Allahu Akbar! Kami sudah merdeka, Bu. Saya suka tertawa, gitu ya.

19. Tri Mumpuni - Pemberdayaan Perempuan dan Dampak Korupsi Terhadap Pembangunan Desa (Untuk NKRI, 2014b)

(02:53)

Bicara soal pemberdayaan perempuan, kita yakini bahwa secara kultur di Indonesia ini masih banyak sekali daerah-daerah di mana perempuan itu menjadi the breadwinner of the family. Dia merupakan orang yang harus mencari nafkah itu karena secara kultur atau karena memang kebetulan saja menjadi single mom atau ada penyebab-penyebab lain. Nah perempuan di sini sebetulnya mempunyai peranan yang sangat penting. Kalau sayamau mengutip sebuah kata-kata yang sangat spektakuler dari dulu dan sekarang masih sahi adalah mendidik 1 perempuan adalah mendidik 1 generasi. Ini harus kita ingat. Jadi sebagai perempuan saya ingin juga semua perempuan-perempuan Indonesia, baik yang muda maupun yang sudah seumuran dengan saya bahkan lebih senior, untuk selalu berperan aktif agar siapapun di antara kita ini semua bisa berkontribusi secara positif terhadap peningkatan kesejahteraan bagi perempuan-perempuan lain yang kurang beruntung.

Satu hal penting, sebuah pesan yang saya dapatkan pada saat kita berkumpul dengan perempuan-perempuan hebat di seluruh dunia, kita selalu mengatakan setiap perempuan hebat haruslah menyebutkan atau mention perempuan-perempuan lain yang hebat. Sehingga menjadi sebuah gerakan bahwa kehebatan perempuan-perempuan ini bisa bermanfaat dan juga memberikan dampak yang positif untuk pembangunan bangsa kita.

(07:00)

Ini tentunya akan saya bagi cerita selama 24 tahun menggeluti pemberdayaan masyarakat di desa-desa pada umumnya. Tetapi secara lebih spesifik, perempuan. Saya melihat banyak ketidakadilan yang terjadi yang dialami oleh perempuan. Misalnya masyarakat di Sumba. Masyarakat di Sumba yang biasanya mencari air, mencari kayu bakar ke hutan adalah perempuan. Nah, apa intervensi yang bisa kita lakukan? Yang bisa kita lakukan adalah kalau kita memperingan tugas perempuan dalam hal ini kita menyediakan teknologi, kita menyediakan akses informasi dan kita memberikan kemudahan perempuan untuk berpartisipasi dalam proses pembangunan. Celakanya hal ini susah terjadi. Karena apa susah terjadi? Karena itu tadi. Mentalitas

korupsi yang sudah berurat-berakar dalam kegiatan proses pembangunan di Negara kita ini, yang susah sekali untuk dihilangkan. Di sini peran perempuan menjadi sangat signifikan karena korupsi memang sangat mengganggu. Sebelum kita bicara masyarakat desa, sebelum kita bicara korupsi yang menghancurkan pembangunan di desa, kita bicara dulu korupsi di kota. Kebanyakan pejabat-pejabat kita ini karena didorong oleh perempuan, biasanya istrinya atau pacar gelapnya ya saya ngga tau, ini melakukan korupsi karena dia merasa bahwa saya mempunyai kekuasaan dan saya bisa mengambil keuntungan yang sebetulnya bukan hak saya. Inilah perempuan diharapkan hadir untuk menunjukkan kemuliaan hatinya dan harus bisa mencegah. Kalau kita mendapatkan sesuatu yang bukan hak kita, sebaiknya kita Tanya. Sebagai seorang istri kita berperan penuh untuk membuat suami selalu berjalan di koridor yang benar. Kalau dia memegang kekuasaan, harus membantu suami agar amanah dan tidak korupsi. Ini penting sekali. Dan berbicara dengan korupsi yang sangat mengganggu pembangunan di pedesaan jelas saja. Ini sudah terjadi sejak jaman dahulu kala. Sejak jaman Soeharto dan sampai sekarang masih terjadi. Tegakah kita untuk membiarkan ini terus terjadi? Ini sebaiknya harus kita stop.

Contoh yang konkrit, dulu ada yang namanya Inpres, Instruksi Presiden. Bahwa ada bantuan pembangunan yang namanya Banpres, Bantuan Presiden. Yang diberikan kepada jelas, desa-desa. Apa yang terjadi. Ini nih menjadi tidak efektif. Sebabnya apa? Karena yang terjadi uang yang harus masuk ke desa itu dalam perjalanannya sudah terpotong di kanan-kiri itu sampai ke lokasi di mana uang ini bermanfaat untuk membangun desa jumlahnya sudah tidak sesuai, sudah tidak memadai, dan tidak cukup. Oleh karena itu desa-desa di Indonesia sampai saat ini masing sangat tertinggal.

(12:00)

Ok, tadi itu saya berbiaca soal permasalahan dan problem-problem ya. Termasuk salah satunya sekarang ini kita berbicara aparat. Tidak hanya di kota, setara nasional, tetapi juga aparat di desa sendiripun juga perlu diwaspadai. Karena itu tadi. Mentalitas korupsi yang sudah begitu berurat-berakar dalam kultur kita menjadikan aparat pun juga, di level desa, itu melakukan korupsi. Dan inilah yang membuat desa itu tertinggal, tidak bisa dibangun dengan baik.

Sekarang solusinya bagaimana? Solusinya saya berharap siapapun yang nanti menjadi presiden untuk bisa melakukan langkah-langkah sebagai berikut. Pembangunan harus dimulai dari desa. Mengapa? Karena ada 4 capital yang penting sekali untuk proses pembangunan ini. Yang pertama natural resources capital. Pertama ini biasanya terletak di desa-desa. Inilah yang harus digarap dengan benar, harus dijaga dengan baik, manfaatkan untuk kepentingan dan kemanfaatan masyarakat lokal. Dari jaman Nabi Adam sampai sekarang Tuhan menciptakan resources lokal, menciptakan manusia community lokal. Ini sudah ada kerjasama yang namanya simbiosis mutualis. Memanfaatkan resources lokal untuk keperluan masyarakat lokal itu sudah sebuah keniscayaan dan harus terjadi.

Tapi, yang kedua yaini sumber daya manusia as a capital. Tadi natural capital ini human capital. Human capital adalah kita memerlukan orang-orang yang penuh kreasi, penuh daya imajinasi. Dia cukup mampu untuk mempunyai terobosan-terobosan yang bagus. Inovasi dan sebagainya. Sehingga natural capital tadi

memberikan nilai tambah. Memberikan nilai tambah untuk memakmurkan masyarakat di desa.

Tiga yang penting juga yang harus diingat adalah yang namanya social capital. Social capital ini sekumpulan orang-orang yang punya ide, memanfaatkan resources sehingga memberikan kemanfaatan yang banyak buat masyarakat di desa.

Nah yang terakhir inilah yang namanya economic capital. Ini sangat jangka pendek. Biasanya karena sistem politik kita itu presiden hanya 5 tahun jadi orang itu hanya melihat yang namanya economic capital ini. Ini sangat jangka pendek dan dengan mudah bisa diukur. Ini tidak signifikan sebetulnya. Yang signifikan itu adalah natural capital, human capital sama social capital. Ini yang harusnya betul-betul menjadi tumpuan pembangunan kita.

Kira-kira hal-hal seperti ini bisa terjadi kalau pembangunan di desa ini betul-betul dilaksanakan oleh pemerintah yang akan datang. Artinya apa? Desa menjadi pusat-pusat pertumbuhan ekonomi baru dengan memanfaatkan resources yang ada sehingga ekonomi yang tercipta nanti adalah ekonomi yang berkeadilan dan berwawasan lingkungan. Dengan cara demikian, desa aman, orang tidak perlu urbanisasi, kota pun aman karena kota bisa hidup dengan carrying capacity yang memang ada di kota. Dan desa juga aman karena desa juga mampu menghidupi masyarakatnya sehingga kita nggak perlu melihat TKW ya harus meninggalkan desanya gitu untuk disiksa di sana walaupun mungkin dia menjadi pahlawan devisa. Tapi lebih bagus kalau di desa ada lapangan pekerjaan. Dan ini secara konkrit bisa kalau kita mau. Dan kita perlu seorang champion di masing-masing desa. Seorang sarjana yang punya empati dan cukup brilliant. Dia mau mengabdikan dirinya untuk membangun desa. Kalau ini menjadi sebuah gerakan nasional, saya yakin pembangunan desa ini akan dengan mudah terlaksana. Satu hal yang harus diingat, tidak boleh ada korupsi. Bagaimana mencegah korupsi memang perlu revolusi dalam cara berpikir kita. Jangan pernah berbuat yang menyengsarakan orang lain, mengambil yang bukan haknya.

(19:30)

Sebetulnya kan mimpi kita adalah, kenapa kita dalam tim IBEKA ini ingin sekali mewujudkan pembangunan desa yang berkeadilan. Itu artinya apa? Desa itu punya asset. Dalam hal ini yang kita bangun misalnya pembangkit listrik ya. Pembangkit listrik ini bisa enerjinya dijual ke PLN sehingga desa punya income. Itu salah satu contoh. Contoh yang lain banyak. Desa ini punya income sehingga desa bisa menyekolahkan semua penduduknya even yang paling miskin. Karena apa? Desa punya uang. Nah, kalau desa punya uang bisa menyekolahkan dengan baik, tentunya kita punya masyarakat atau SDM yang berpikir kritis dan cerdas, tidak dengan mudah dia bisa mendapatkan iming-iming atau tawaran untuk menjual akses produksinya, yaitu tanah. Dan pembangunan pertanian menjadi penting, karena apa? Karena dia sadar bahwa kita ini Negara agraris dan yang penting banget adalah pangan itu harus menjadi tumpuan suatu Negara kalau dia mau dikatakan sebagai Negara yang mandiri.

(27:00)

“Perbaiki infrastruktur desa dr lintas sector. Pemberdayaan masyarakat yang terarah baik sehingga menjadi desa mandiri”

Saya sangat bersyukur ada orang cerdas yang menanyakan ini. Kenapa? Karena ini 24 tahun perjuangan saya dan tim untuk mewujudkan desa mandiri. Saya inget di awal-awal kita merdeka kita masih mendapat pemimpin-pemimpin yang punya karisma, yang berakhlak baik sehingga mereka ingin yang namanya Indonesia itu menjadi, desa kita ini ya, self supporting. Desa yang namanya banyak karena secara geografis saja ya itu terletak di desa. Tapi pada intinya desa itu sebetulnya cukup maju karena infrastrukturnya semua ada. The best school, sekolah yang baik ya, ada di situ. The best hospital, ada rumah sakit yang terbaik ada di situ. Dan semua proses transaksi ekonomi dan sebagainya bisa dilakukan di desa itu. Jadi sebenarnya ngga ada bedanya fasilitas di desa itu dengan di kota. Bedanya hanya secara geografis saja terletak di desa. Ini bisa. Dengan mudah bisa dilakukan kalau kita punya niat. Tentunya secara kolektif. Collective effort ya. Usaha bersama-sama generasi muda Indonesia untuk bisa mewujudkan mimpi ini tapi dengan satu syarat, pilihlah pemimpin yang kira-kira bisa menjadikan mimpi ini menjadi kenyataan..