

Does Social Protection on Education Increase the Capacity of Communities in Facing Disasters?

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Abstract. Based on the crunch model, the root causes of vulnerability to disasters include political, natural, economic, and social aspects. To target these root causes, there needs to be a focus on developing education as it plays an important role in increasing the capacity of an individual and a community. The Indonesian has prioritized the development of education and even allocated about 20 percent of its spending. In addition, the government has a social protection program that also affects the education, particularly for children namely Indonesia Smart Program (“Program Indonesia Pintar”). For this paper, Cianjur Regency was chosen as a case study for several reasons. First, Cianjur is the regency most vulnerable to disasters in West Java, particularly of floods and landslides. Second, Cianjur is one of the regencies in West Java with many social problems. The objective of this paper is to analyse the role of the Indonesia Smart Program in increasing the capacity of children to strengthen disaster resilience in Cianjur Regency. The PIP faces many challenges particularly in Cianjur Regency such as the accessibility of the beneficiaries to get the financial aid and the monitoring aspect of utilization of the money. The Indonesia Smart Program has an indirect effect in increasing the capacity of children in general. However, the effect of increasing the capacity of children in disaster risk reduction is relatively limited and indirect.

1. Introduction

Socioeconomic and demographic factors are considered the most important causes of vulnerability of communities that are exposed to disasters [1]. Various approaches have been carried out to increase community capacity and to reduce the vulnerability, particularly the social factors. Based on the crunch model [2], the root causes of vulnerability are political, natural, economic, and social aspects. To target these root causes, there is a need to focus on the development of education. In fact, various studies show the importance of education on disaster risk reduction and resilience [3].

In recent years, social protection in developing countries tends to use the strategy of cash transfers **Error! Reference source not found.** Most of them use conditional cash transfer schemes in their social protection programs such as Bolsa Familia in Brazil and Familias en Accion in Columbia **Error! Reference source not found.** Most of these social protection schemes aim to reduce the inter-generational poverty. In addition to health, education played an important role in achieving the objective. The enrollment of children in school is one of their focus areas as a requirement for a household to receive financial aid.

Education plays an important role in increasing the capacity of an individual and a community. In general, better-educated people tend to earn more, have greater wealth, and live a longer and healthier life **Error! Reference source not found.** The Indonesian government has prioritized educating the



society and even allocated about 20 percent of its spending. In addition, GoI has a social protection program that also affects education, particularly for children, namely the Indonesia Smart Program (“Program Indonesia Pintar”).

The Indonesia Smart Program is a national social protection scheme for children (6 to 18 years old) by increasing their opportunities to receive a formal and informal education **Error! Reference source not found..** The Indonesia Smart Program is a conditional cash transfer program for children. This type of program is suitable for child protection outcomes with regular monitoring and complemented with other needs of children **Error! Reference source not found..** This program complements other social protection programs from the government for education such as School Operational Aid (Bantuan Operasional Sekolah or BOS) and Family Hope Program (Program Keluarga Harapan or PKH).

For this paper, Cianjur Regency was chosen as a case study for several reasons. First, Cianjur is the regency most vulnerable to disasters in West Java, particularly to floods and landslides **Error! Reference source not found..** Second, Cianjur is one of the regencies in West Java that has many social problems. For instance, the child abuse in Cianjur is relatively high compared to other districts in West Java. From 2009-2015 there were 464 cases of child and women abuse, and in 2015 alone there were 74 cases. These social problems could be caused by limited knowledge of their rights and how to deal with such social problems. Therefore, education could address this issue by increasing the knowledge of their rights, values, and norm.

The objective of this paper is to analyze the role of the Indonesia Smart Program in increasing the capacity of children to strengthen disaster resilience in Cianjur Regency. The paper will present how the Indonesia Smart Program is implemented in Cianjur and what the challenges are in the process from the perspective of the beneficiaries and the government. After that, the paper will explain how the Indonesia Smart Program influences the capacity of children in facing disasters.

The main method of analysis and data collection in this study is a qualitative approach, although a small part of the analysis will be supported by simple quantitative analysis. Secondary data comprise reports, statistics, and previous studies, while primary data are collected through interviews and focus group discussion with stakeholders, such as beneficiaries (students), schools, and government agencies in Cianjur Regency.

2. Methodology

As seen in Figure 1, based on the Crunch Model, education could contribute to increasing the community’s resilience towards disasters. Thus, the Indonesia Smart Program is expected to enhance the education level of communities. This paper investigates the extent to which the program contributes towards the community capacity in facing disasters. The methods of data collection consisted of in-depth interviews with the School Master, teachers, Village Secretary, staff of the Education Office and the Social Services Office, as well as focus group discussion with the beneficiaries and their parents.

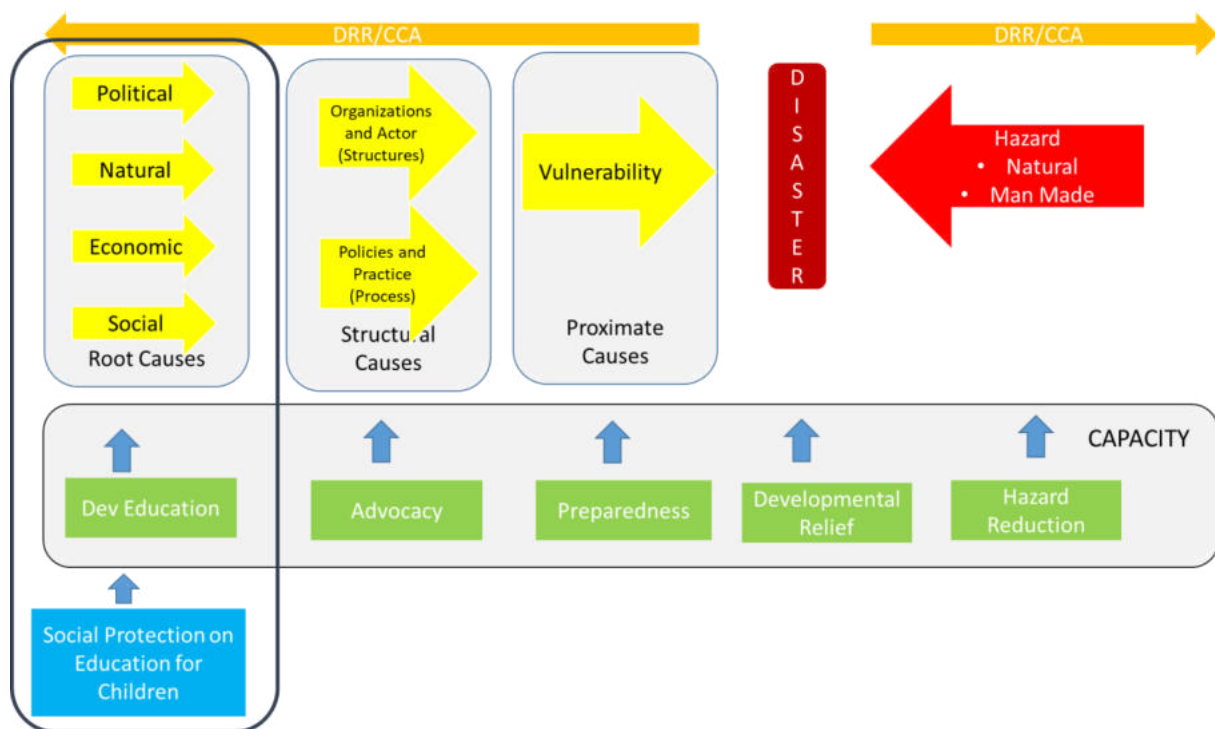


Figure 1. The approach of the study.

3. Literature Review

3.1. Social protection program on Disaster Risk Reduction

Social protection is a concept that has evolved in recent years focusing on short-term intervention to reduce the impact of unexpected shocks and is also concerned with long-term poverty alleviation **Error! Reference source not found.** In the 1990s, social protection was in the form of safety nets for poverty, livelihoods, risk, and vulnerability **Error! Reference source not found.** Currently, social protection is considered as an important development strategy to reduce the poverty and vulnerabilities of marginalized populations. In addition, social protection can increase the coping capabilities and decrease social exclusion in poor countries **Error! Reference source not found.**

There are different strategies for social protection. One of the strategies that emerged in recent years, particularly in many low-income countries, is cash transfer programs **Error! Reference source not found.** **Error! Reference source not found.** **Error! Reference source not found.** **Error! Reference source not found.** In general, cash transfer programs can be categorized into two types: conditional and unconditional cash transfers. Unconditional cash transfer programs have been implemented in several developing countries. For instance, the Kenyan government has designed an unconditional cash transfer program for orphans and vulnerable children that face poverty **Error! Reference source not found.** **Error! Reference source not found.**

Conditional cash transfer programs usually provide cash to households that must fulfil requirements such as the enrolment of children in school, clinic attendance to monitor young children, pregnant women, and lactating mothers **Error! Reference source not found.** This scheme arises in Latin America with several countries implementing the conditional cash transfer program for their communities such as Brazil with Bolsa Familia, Chile with Chile Solidario, or El Salvador with Red Solidaria **Error! Reference source not found.** **Error! Reference source not found.** Most social protection programs invest in education as their requirement. Conditional cash transfer programs are proven relatively efficient and effective in improving educational outcomes **Error! Reference source not found.**

Social protection has a positive impact on people's lives. Countries with social protection systems in place are better able to protect their people from the impacts of disasters **Error! Reference source not found.** Social protection is aimed at assisting individuals and groups to overcome any challenges they may face by reducing vulnerability whilst also building resilience. In recent years, the national and international governments started to recognize that social protection is a means by which the impact of natural disasters can be mitigated **Error! Reference source not found.**

3.2. *Social protection program on Disaster Risk Reduction*

Ghana, as a developing country in Africa, uses social protection as one of their strategies in increasing the quality of life. After their independence from colonial rule in 1957, Ghana has implemented several social protection schemes **Error! Reference source not found.** The social protection program gives different types of aid to communities depending on their scheme such as The National Pension Scheme in 1946 which provides pensions to civil servants and army personnel; the interstate succession Law 1984 which protect the inheritance rights of widows and children; and the Education Act of 1961 that guaranteed up to six years of free primary education for all Ghanaians **Error! Reference source not found.**

As a social protection on education scheme, the government introduced a new policy known as Free Compulsory Universal Basic Education (FCUBE) **Error! Reference source not found.** Under this policy, pre-university education for children for was free but they still need to pay for uniforms, textbook, and PTA dues that will be a burden for poor children **Error! Reference source not found.** Thus, the government developed new schemes under the poverty reduction strategies which gives each primary school about US\$3.00 per pupil per year for their uniforms, textbooks, etc. **Error! Reference source not found.**

Another program in Ghana is the school feeding program that began in 2005 with the objective to increase the school enrolment and retention by providing at least one daily meal to children in deprived districts **Error! Reference source not found.** This scheme is similar to other countries' programs for feeding children. Del Rosso **Error! Reference source not found.** found that the countries which started this feeding program witnessed improved attendance, increased enrolment, and improvements in learning. This scheme also has potency in reducing hunger and malnutrition in rural communities and breaking the inter-generational cycle of poverty.

In general, these social protection schemes provided benefits to education outcomes but still face several challenges, e.g., poor record keeping, the inconsistency of money transference, and some school still charge fees for some items **Error! Reference source not found.** The increased enrolment is one of the positive impacts of this program.

3.3. *Indonesia Smart Program (Program Indonesia Pintar)*

School is one of the places where children can find stability, and therefore a source of normalcy, second to home. Thus, the school can be a strategic place for a program to be installed that relates to children's resilience. From another perspective, there is an importance and urgency to support the school institutions in order to develop the children's resilience.

The Indonesia Smart Program (Program Indonesia Pintar-PIP) is one of the national social protection programs that aim to improve the enrolment in schools; increase the number of students continuing their education; and reduce discrepancies in the educational system. PIP is the improvement of the previous program named Cash Transfer for Poor Students (Bantuan Siswa Miskin or BSM) program.

The target beneficiaries of this program are students (6-21 years old) who have Indonesia Smart Card (*Kartu Indonesia Pintar – KIP*) or students from vulnerable families such as **Error! Reference source not found.**

- Students from families that participate in the Family Hope Program (*Program Keluarga Harapan*-PKH)
- Students from families that have a Family Welfare Card (Kartu Keluarga Sejahtera – KKS)
- Students who are orphans or living in orphanages or under social care
- Students who are affected by disasters
- Students in informal education or vocational/courses institution.
- Students from vocational schools who focus on priority areas such as agriculture, forestry, and maritime affairs.

Table 1. PIP Financial Aid for Children.

Level of Education	Aid for 6 months
Elementary School (SD, MI, Paket A)	225.000 IDR
Junior High School (SMP, MTs, Paket B)	375.000 IDR
Senior High School (SMA, SMK, MAN, Paket C)	500.000 IDR

The beneficiaries are expected to use this aid to complement their study needs such as for buying books, school uniforms, and for transportation costs to go to school.

4. Study Context

Located in West Java, Indonesia, Cianjur is home to 2.5 million people. Cianjur Regency comprises 32 districts with 11 villages spread over its urban area. Cianjur is prone to disasters such as floods, landslides, and earthquakes. The regency is categorized as facing high-risk towards disasters with a score of 250 which surpasses 496 municipalities/regencies throughout Indonesia **Error! Reference source not found..**

As one of the high-risk regencies in Indonesia, the exposure of communities to disasters is high, particularly for the most vulnerable people such as the elderly, children, people with disabilities and women, who could suffer the most from impacts of climate change and disasters. Children are some of the most vulnerable groups in society due to their dependence on adults. However, in Cianjur Regency, children face many problems that increase their vulnerability such as child neglect; street children; vagrants and beggars; human trafficking; physical and sexual violence towards children and women; poverty; malnourishment; maternal and child mortality; child marriage; and a high divorce rate (Figure. 2).

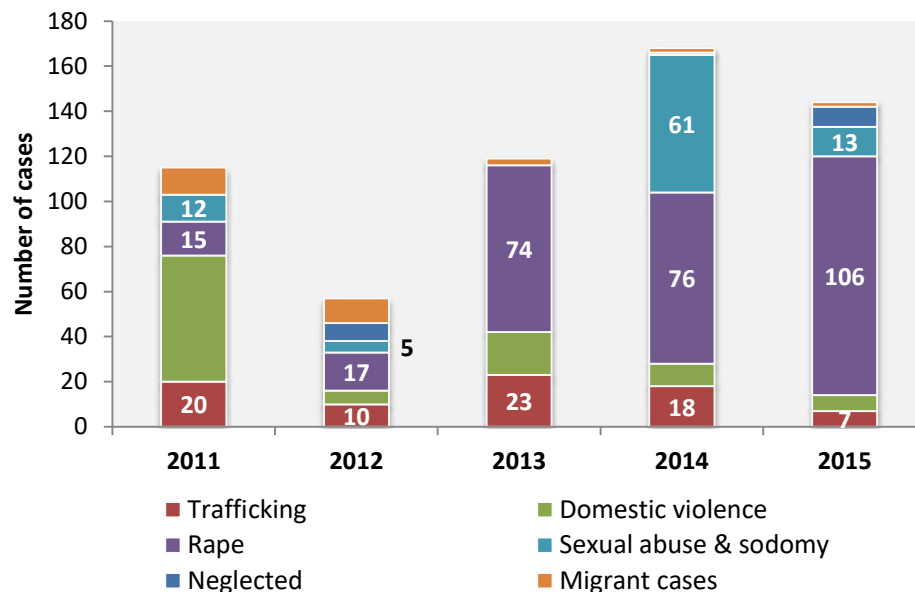


Figure 2. Social problem in Cianjur (BKKBK Cianjur Regency, 2016).

One of the ways for children to face these problems and increase their capacity while reducing their vulnerability is through education. The Indonesia Smart Program (PIP) could be a part of the solution in facing these challenges as one of the social protection programs that target children as their beneficiary to increase their participation in school. However, schools in Cianjur have many problems such as an insufficient number of schools in some areas, the number of teachers, and their educational facilities. Particularly the southern part of Cianjur has low accessibility to education compared to the northern part.

5. Indonesia Smart Program Implementation and its Challenges in Cianjur Regency

The PIP in Cianjur Regency has been implemented since 2014 and almost all districts in Cianjur are listed as the beneficiaries of PIP. Most beneficiaries are students of high schools. Figure 3 shows that the northern part of Cianjur has more beneficiaries compared to the southern part. In parallel, Figure 3 indicates that most of the northern districts are classified as high-risk in terms of disaster potential.

BRI Bank distributes the cash transfers from the PIP. The students listed as the beneficiaries are usually assisted by the schools' management to get the financial aid. As the money must be transferred directly to the student, teachers or school administrative staff accompany them to the closest BRI Bank. The Principal of State Junior High School No. 3 who used to be a teacher in the southern part of Cianjur said that "the road access to the local bank is of poor quality, so transportation costs are high and a student may spend between 10 to 30 percent of the PIP money to get the cash transfer".

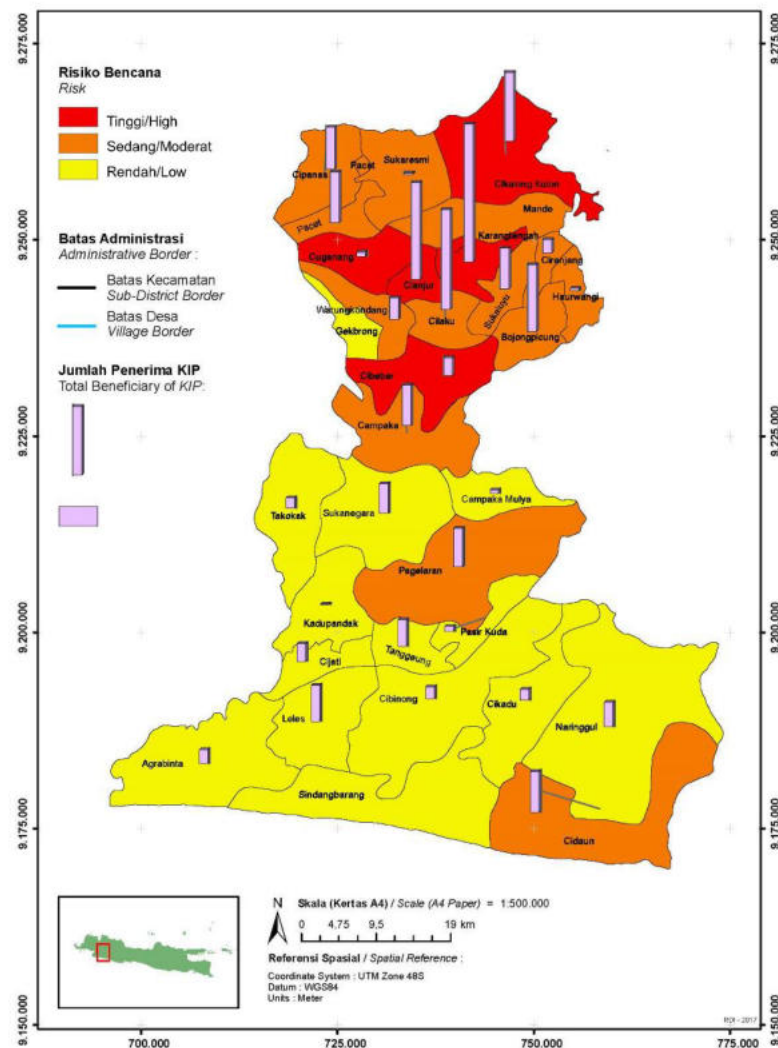


Figure 3. The mapping of the distribution of Indonesia Smart Program and Disaster Risk in Cianjur Regency 2016.

Therefore, the school usually took the initiative to help the students in preparing the administrative requirement for the payment from PIP and even coordinated a collective disbursement to be more cost efficient in terms of transportation to the local bank. However, this method to collect the cash transfer aroused public controversy as the school deducted the transportation cost from the cash transfer. One of the parents of a beneficiary during the FGD for this research actually supported such a collective way of getting the PIP aid:

“We actually did not mind if the school collect for transportation fees. We were really happy with the initiative of the school to facilitate the money collection from the bank...it was really helpful for us”

FGDs with the parents and teachers of beneficiaries also reveals that there were cases when the earned money was not spent on buying books or uniforms as expected, a teacher informed:

“The students still used torn pants or broken shoes even after the distribution of financial aid from PIP. As a result, we established a small store which sold school

uniforms and books to facilitate the students. However, it was seen by outsiders as too far intervening the beneficiaries. Therefore, the store was closed and we cannot really monitor the use of the cash transfer”.

Another challenge is related to the question of how the government established the database of beneficiaries of the Indonesia Smart Program (PIP) **Error! Reference source not found..** In the case of Cianjur, the communities still observed an inaccuracy of data; even though PIP has provided a feedback mechanism for beneficiaries' nomination, this mechanism did not completely work. Therefore, there were cases when students who really need the financial aid from the PIP were not listed as beneficiaries within the database. This fact has aroused jealousy among families within the communities. One of the possible factors stems from the lack of socialization of the Indonesia Smart Program so that parents are not well-informed about the program. Secondly, the required documents for PIP are sometimes not easy to fulfill by the parents, particularly for schools located in remote areas.

One of the objectives of PIP is to increase the enrollment rate of schools, which can be assessed by an indicator of the average period of school participation (*rata-rata lama sekolah*-RLS). To evaluate the extent to which PIP could contribute to the RLS index, we need to compare the data after the implementation of the previous BSM (similar to the current PIP). Figure 4 shows that although the RLS in 2016 was still 6.61 years, the RLS has continuously increased since 2004. However, the role of PIP (used to be BSM) in contributing to such a positive trend of RLS still needs further investigation as, since 2005, the government also provides Aids for School Operation (Bantuan Operasional Sekolah -BOS). BOS provides aid to help students for free enrollment to elementary school and junior high-school. Based on a national-level evaluation, BOS provides an important contribution to increasing the participation of children in schools **Error! Reference source not found..** Therefore, the PIP may not solely contribute to the increase of RLS but complement other social protection schemes for education such as BOS.

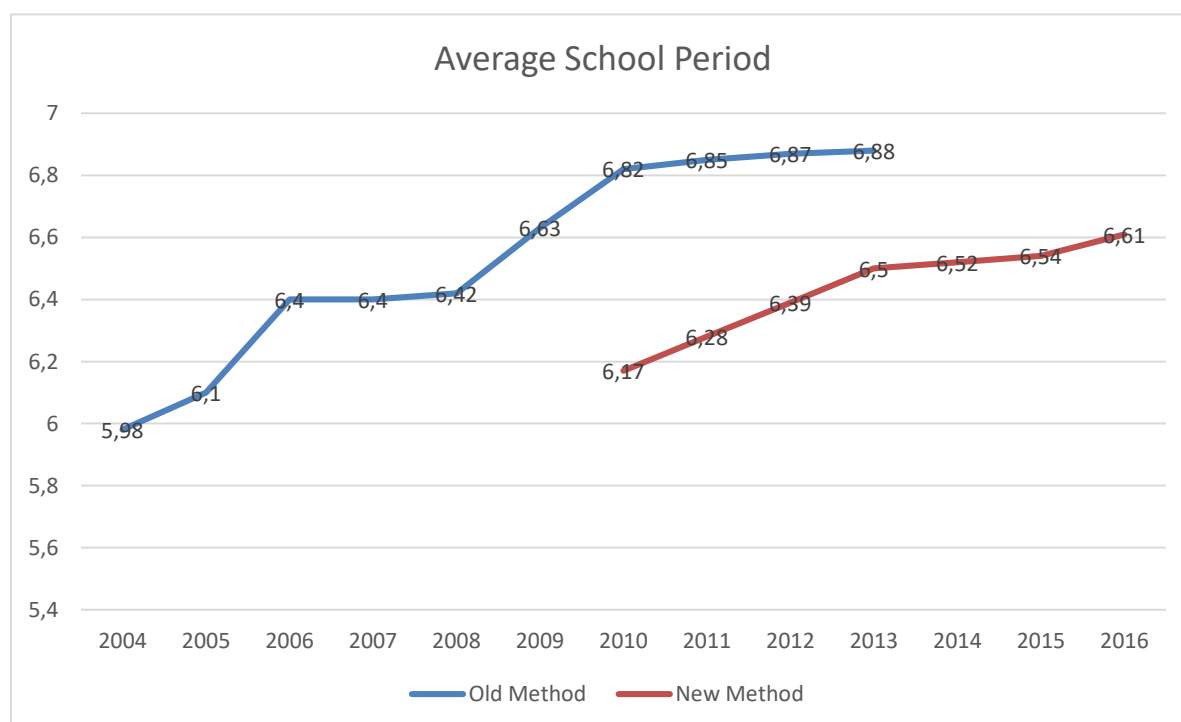


Figure 4. The average length of enrolment in school in Cianjur Regency.

Source: ipm.bps.go.id

The role of schools in the implementation of PIP is important to ensure this program works well and students get their financial aid. The teachers have the additional task to ensure the beneficiaries could access the aid. For instance, schools help students to fulfill the required documents to submit to the Education Office and to the Local Office of Bank BRI. Furthermore, school management has also acted as a facilitator to ensure the students use the financial aid in accordance with the expectation of the PIP such as for buying school uniforms, stationeries, and books.

6. Indonesia Smart Program and Community Capacity on Facing Disaster

PIP, as a social protection program that provides cash transfer for education, could increase community capacity towards disaster mitigation. In terms of disaster recovery, communities with a higher education level could recover faster than those with lower levels of education [3]. Furthermore, the resilience of communities could be enhanced through education which, in turn, could increase the capacity of communities [26][27]. In addition, other studies also showed that social protection could be used as short-term disaster relief **Error! Reference source not found.**

As explained in the literature review above, one of the criteria for the PIP beneficiaries is students who were the victim of a disaster. Similarly, PKH (Family Hope Program) also targets the victims of disasters as its beneficiaries. The amount of cash transfer provided by PIP is less than the amount provided by PKH. The role of PIP in disaster mitigation cannot be immediately measured; rather, PIP has to be seen as a long-term investment to increase the capacity through elevated education levels of the communities. It means that PIP cannot immediately relieve the situation of victims of disasters in an emergency situation. In terms of emergency response, another social protection scheme like PKH may be more useful to address the needs in emergency situations. In Cianjur, the beneficiaries of PIP are usually based on the criteria of poverty, thus, the criterion of disaster victim is not commonly used.

Although the PIP provides an incentive for students to go to school, however, to build their capacity to face disasters needs complementary efforts with other programs. Through PIP, for example, students could gain general knowledge on disaster mitigation from the schools. However, for students to have more knowledge and specific skills in facing disasters needs more efforts particularly through inserting disaster mitigation topic into the school curriculum. In West Java, the provincial government has tried to insert material about disaster management in the school curriculum through local content (*muatan lokal*) since 2007 through Governor Decree 25/2007. This course could build the knowledge of students on disasters from elementary to senior high schools. Unfortunately, this local content was removed due to curriculum change in 2013. Nevertheless, our discussion with students who are the receivers of PIP shows that they have basic knowledge about disaster threats around them (e.g. landslides and earthquakes) and what they must do if a disaster happens.

7. Discussion

Social protection in developing countries faces many challenges in its implementation due to the limited capacity of the government **Error! Reference source not found.** The Indonesia Smart Program, as a social protection on education, has the short-term objective to increase the enrollment rate and the long-term objective to increase the quality of life **Error! Reference source not found.**[29]. Short-term social protection usually contributes to direct coping strategies of communities through financial aid for households and in the long run has a role in building the adaptive capacity of communities **Error! Reference source not found.** The long-term objective of PIP is also to strengthen disaster resilience. In this paper, however, it cannot be properly assessed because the program has only been implemented for about four years. PIP has a direct link to disaster mitigation by including a criterion that covers the students who experience disaster as their

beneficiary. In the case of Cianjur, the number of beneficiaries of PIP is positively correlated with the level of risk in each district. The majority of PIP receivers is spatially distributed in the districts located in northern Cianjur which also have high disaster potential.

Education is always a priority in the global commitment for Disaster Risk Reduction (DRR) such as the Hyogo Framework for Action (HFA) 2005-2015 **Error! Reference source not found.** and the Sendai Framework for Disaster Risk Reduction 2015-2030 **Error! Reference source not found..** There are substantial efforts to integrate DRR in the education sector globally **Error! Reference source not found.** However, in Indonesia, there are many challenges in integrating education and DRR **Error! Reference source not found..** In this case, PIP could be a potentially powerful tool in increasing the knowledge of students on disasters. The Safe School Program which is developed by the Education Ministry and the National Disaster Management Agency could complement PIP in strengthening the resilience of communities through the education sector.

Indonesia offers another social protection program called PKH which is similar to PIP. These two programs provide cash transfer through a bank which has offices at the village level. However, PKH has a management unit in each district which is called Implementation Unit of Family Hope Program (*Unit Pelaksana Program Keluarga Harapan-UPPKH*) [35]. The role of UPPKH in PKH is similar to the role of Schools in PIP. The Schools help the beneficiaries to understand the program guidelines so that the cash transfer can be properly received by the target groups.

8. Conclusion

The Indonesia Smart Program (“Program Indonesia Pintar” or “PIP”) has a great potential to directly and indirectly increase the capacity of communities on disaster mitigation. PIP could, in the short-term, reduce the burden of students who suffer from the impacts of disasters as one of the criteria of PIP beneficiaries is disaster victims. The PIP faces many challenges particularly in Cianjur Regency such as the accessibility of the beneficiaries to get the financial aid and the monitoring aspect of utilization of the money. The Indonesia Smart Program has an indirect effect in increasing the capacity of children in general. However, the effect of increasing the capacity of children in disaster risk reduction is relatively limited and indirect. Nonetheless, it is still possible to strengthen disaster preparedness through the curriculum in schools.

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