

Collaborative Governance in Developing Smart Village

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Abstract. In responding to technological developments and the use of the internet in villages, the Government through the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration (MoV), in collaboration with the World Bank designed a program called Smart Villages. This study uses a qualitative approach with inductive thematic analysis. Data are collected from series of focus group discussion. The result of this study is Smart Village Action Plan mentioning the roles of stakeholders including (1) Ministries/Agencies to support infrastructure, applications integration, and human resource capacity building (2) private sectors to facilitate infrastructure and empower village communities (3) NGOs assist village institutions, village officials and community groups to improve the decision-making process. Thus, the collaboration in developing the Smart Village model in Indonesia is expected to be able to accelerate economic transformation and rural development in Indonesia.

Keywords: development, smart village, collaborative governance, focus group discussion, action plan

1 Background

The internet has become the main driver of achievement leaps in the disruptive era. The development of information technology has a role in increasing the productivity, effectiveness and efficiency of the administration of government, companies, and society [1]–[3]. The village is also a part that must adopt this technological development that can be utilized by the village government in serving the community [4]. These technological developments have an impact on the economic and community sectors and require anticipation to manage them [5]–[7]. The Ministry of Villages, Development of Disadvantaged Regions, and Transmigration (MoV) responded to this impact in order to utilize information technology effectively in villages through a program called Smart Village. The purpose of developing the Smart Village program is to realize empowerment, institutional strengthening and improving the welfare of rural communities based on the use of information technology [8].

Information technology has been widely used as a village development approach [9], [10]. Smart Village is a village development policy breakthrough that is directed at digital data-

based decision making by maximizing community participation. This policy breakthrough must be supported by a community empowerment strategy that is oriented towards strengthening digital technology literacy so that people can maximize the use of information technology (IT) more productively. The background of the Smart Village program is: First, the development of IT has been able to open openness and transparency in improving the quality of village fund utilization starting from the planning, implementation, monitoring, controlling and reporting stages of the quality of village fund utilization. Second, the development of IT/ICT will encourage active community participation, transparency and accountability, in order to realize democratization in the village. Third, the use of village digital data for village development results is a local village metadata that can contribute to the achievement of the 17 Sustainable Development Goals (SDGs) at the village scale.

The digital transformation process towards a Smart Village will be based on the "bottom up" principle to ensure that the internet network is evenly available and that the community has the knowledge and skills to use the internet effectively. Smart Village focuses on the development of information technology and digitization towards the development of a modern and sustainable society [11]. The Smart Village concept is needed so that villages are able to feel the problem (sensing), understand the condition (understanding), and manage resources to overcome it (controlling). In the Smart Village concept, the success rate of the program is measured by looking at the performance of managing resources more efficiently, involving various elements of the community, and being sustainable. In order to achieve this measure of success, six supporting pillars of Smart Village are needed, namely:

- 1) Smart Government, where digital technology supports the effective provision of basic services and public services;
- 2) Smart People, namely investing in basic skills and knowledge in using the internet effectively to increase creativity and well-being;
- 3) Smart Economy, where digital technology becomes a tool in opening market access and information, as well as production and distribution channels;
- 4) Smart Environment, where digital technology supports environmental sustainability goals through conservation and awareness raising promoting sustainable and efficient use of natural resources;
- 5) Smart Living, or well-being, is focused on investing in human resource development and socio-cultural; and
- 6) Smart Mobility, where digital technology can improve the connectivity of rural areas with other parts of Indonesia.

The realization of a Smart Village is not only supported by the sophistication of information technology, but also the adaptability, interaction patterns, and capacity of rural communities in the digital transformation process. Local conditions, availability of infrastructure, and human resource skills are the main considerations in developing the Smart Village model. In achieving the Smart Village goal, a collaborative approach is needed to encourage cross-sectoral involvement. This is necessary to reduce the literacy gap and information technology infrastructure [12]. Thus, the partnership network is one part of the main activities of the Smart Village network. The collaborative approach will foster commitment in plan development and implementation[13], as well as an interactive process of consensus-oriented building [14], [15]. This collaborative approach engages government, communities and the private sector to forge a relationship and work together to achieve goals faster and bigger than

working alone. Collaboration is carried out to create collaborative governance that includes informal and formal relationships in problem solving and decision making [14].

This definition emphasizes six important criteria for a collaboration: a) the forum is initiated by a public institution or agency; b) participants in the forum include non-state actors; c) participants are directly involved in decision making and not only consult with public institutions, these forums are formally organized and meet collectively, d) forums aim to make decisions by consensus, and e) focus of collaboration is on public policy or public management. Collaborative governance will also avoid or handle conflict because of consensus [16]. This is because every stakeholder is directly involved in making public policy. However, if the policy coverage area in the collaboration involves other governments (village), then collaborative governance is not enough to generate mutual consensus [17].

2 Methods

This study aims to map stakeholder interventions based on program location slices which are then used in preparing the Smart Village Program Action Plan. To achieve this goal, this research uses a qualitative approach. According to [18] a qualitative approach is an approach used to explore and understand the meaning of individuals or groups that are ascribed to social problems. Stakeholders who collaborate with the village government will be explored to understand and explore their motives in providing intervention to the village through collaborative governance theory. In this study, the data collection technique was carried out with focus group discussions (FGD). The informant selection technique used purposive sampling. The characteristics of the informants are one of the keys that will support the findings, results, and conclusions of a study. This technique was chosen with considerations and objectives based on research needs [19]. Informants in qualitative research must also be ensured as people who represent the research theme, so it takes informants who are articulate, reflective, and willing to share information with interviewers [20]. The stakeholders consist of Ministries/Agencies, private companies, and non-governmental organizations (NGOs) who are selected based on track records and program plans related to digital infrastructure development, digital literacy improvement, or village community empowerment.

FGD aims to seek various information, knowledge by interacting with different people to be processed and become data findings that can help formulate conclusions and recommendations from the theme of this research [21]–[23]. The implementation of the FGD with stakeholders involved 211 which was carried out by segmentation based on the background of the theme and people as representatives of Ministries/Institutions, NGOs, or business actors. FGDs were conducted using two methods: (1) online through Zoom application (2) offline through organizing face-to-face meeting with stakeholders. Data collection was carried out from October to December 2020 with activities as detailed in the table below.

Table 1. Cross-Sector FGD for Smart Village Collaboration

No.	Topic	Implementation	Resource Person(s)	Attendees
1	Coordination of the Smart Village Preparation	26 October 2020 10.00-12.00 WIB Zoom meeting	Smart Village Technical Team	25 persons
2	Coordination of Smart Village Action Plans Mapping	05 November 2020 10.00-13.00 WIB Balilatfo Meeting Room, 3 rd floor Main Building of MoV	1) Directorate of Business Entity Information Technology Services, Telecommunication and Information Accessibility Agency (BAKTI) 2) Directorate of Information Empowerment, Ministry of Communication and Informatics 3) Directorate of Government Informatics Application Services, MCI (via Zoom) 4) Directorate of Public and Government Information Technology Services, BAKTI (via Zoom)	20 persons
3	Preparation of the Cross-Stakeholder Smart Village Action Plan	16 November 2020 NGO session: 09.00-12.00 WIB Private sector session: 13.30-16.00 WIB Zoom meeting	NGO: Tri Mumpuni, IBEKA Indonesia Mengajar Private sector: Telkomsel PT Pertamina	NGO: 68 persons Private sector: 29 persons
4	Smart Village Action Matrix Synchronization	26 November 2020 09.00-12.00 WIB Zoom meeting	Smart Village Technical Team	27 persons
5	Smart Village Collaborative Action Plan	10-12 December 2020 101 Hotel Bogor and Zoom Day 1: 14.00-21.00 WIB Day 2: 09.00-21.00 WIB Day 3: 09.00-12.00 WIB	1) General Secretary – MoV 2) Head of the Agency for Research and Development, Education and Training and Information 3) Human Development – University of Indonesia 4) Desa Lestari Assemblage 5) ASTRA International	Offline: 35 persons Online: 7 persons

Data analysis went through 5 stages as presented by [24] as follows: a) formulating topics and problems; b) Organizing data (sort and classify); this step is a way of sorting and classifying the data obtained either through interviews with informants or data obtained through Focus Group Discussions. The next step is b) Data processing (open coding, axial coding, selective coding). The data obtained is processed by examining, detailing, comparing, and categorizing to produce a number of concepts (open coding). Axial coding is an advanced stage of open coding by looking at the relationship or interaction pattern between categories in open coding. For example, the expectations of the community and the Ministry of Village in the Smart Village program are included in stakeholder participation. In selective coding, all categories that are already in the axial coding are connected and validated then choose the one that fits

the theoretical study and research theme which is then ready to be interpreted. c) Interpretation and elaboration of data (interpret and elaborate). The data in selective coding is interpreted and elaborated as the basic material for drawing conclusions. The results of selective coding in interviews and Focus Group Discussions such as compromise on intervention in the Smart Village program and d) Conclusion, is the final stage in data analysis to be processed to produce recommendations that become policy material for stakeholders in the Smart Village program.

3 Result and Discussion

The implementation of the Smart Village Program requires the collaboration of various parties and the participation of the Village Government and village communities in an effort to achieve village welfare. Collaboration is one of the keys to success in a sustainable development intervention and revitalizing villages in tourism, institutions [25]–[29]. The collaboration of various parties outside the village, the Village Government, and the active participation of the community is an important and key element for the Smart Village program and its sustainability. According to Curtis [30] active and creative participation of rural communities is a force in developing a program in the community. Collaboration carried out by the Government in terms of the Ministry of Villages, PDT, and Transmigration due to limited resources if it is done alone. Other stakeholders have resources, both funds, facilities and infrastructure that can help realize the goals of Smart Village.

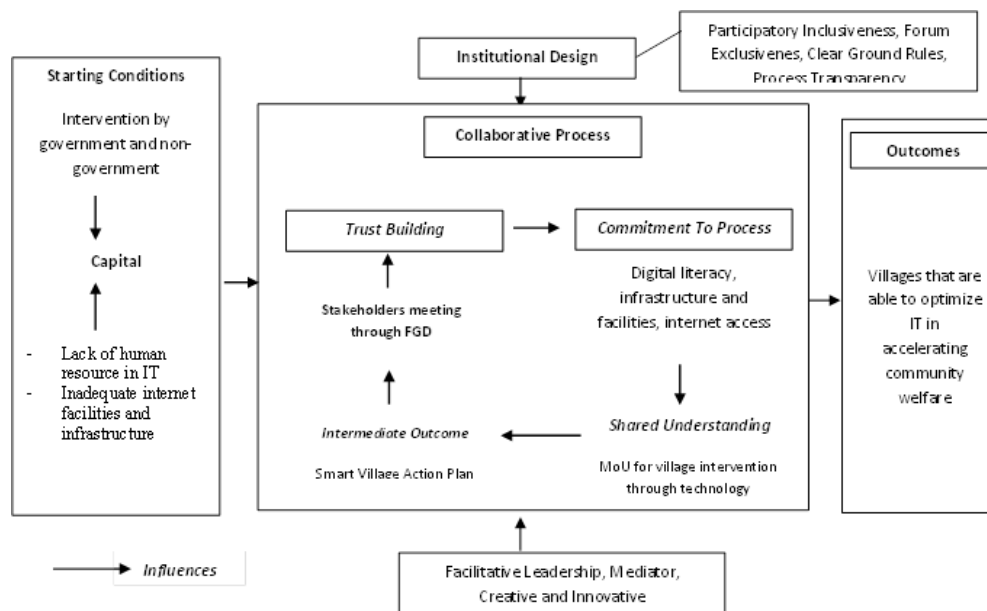


Fig. 1. Adopted from Anshell dan Gabby (2008)

Collaboration alone is not enough [17], it takes creativity and invasion by the Ministry of Villages, PDT, and Transmigration to become a coordinator who has leadership qualities.

Collaborative governance carried out by the Kemendesa PDTT is able to involve the participation of stakeholders including relevant ministries, the private sector, NGOs, and the Village Government in developing the location of the Smart Village program. This collaboration does not make the Kemendesa PDTT the sole actor in determining interventions to the village, but there is space and a negotiation process so that stakeholders can make compromises in the form of intervention and the location of Smart Village. The process in a collaboration is shown in **Figure 1**. The process starts from:

3.1 Starting Program

This is the basis why the Smart Village program was started. This is because of the demands of globalization for the use of information technology in achieving prosperity. Information technology as a tool to achieve the welfare of rural communities in the fields of economy, environment, health, education, and village government services. At this time the village is very left behind in terms of information technology, both internet network facilities and infrastructure and human resources capable of utilizing information technology. This requires intervention from the Government through the Kemendesa PDTT and other stakeholders in an effort to reduce the gap in information technology and accelerate efforts to achieve prosperity.

3.2 Collaborative Process

In the process of forming an institution, it must adhere to the principle of a process that is transparent by all parties, open to all parties who will carry out interventions, and an open forum (Participatory Inclusiveness, Forum Exclusiveness, Clear Ground Rules, Process Transparency). In collaboration there must be a balance for successful collaboration [31]. Institutional or a joint program plan between stakeholders that will be carried out must be trusted by all parties. To do that, it is necessary to conduct limited discussions to build the trust of all parties. This commitment to collaboration must also be realized in activities in an effort to support the Smart Village program such as digital literacy activities, providing internet facilities and infrastructure, and increasing human resource capacity regarding information technology. These activities must be stated in a collective work agreement (MoU) to bind all parties who have compromised to intervene in the village. This MoU is very important to know the role and work of each party who will intervene. After that, plan the activities of the National Action Plan as intermediate outcomes of a collaboration process. In this collaboration process, creative and innovative thinking is needed as well as facilitative leadership from the Kemendesa PDTT who will lead the national action plan.

3.3 Outcome

A collaboration must produce outputs, these outputs are in the form of activities to improve village digital literacy, village human resource capacity, as well as internet network facilities and infrastructure. The output is sought to achieve the expected impact, namely villages that are able to optimize information technology to accelerate the welfare of citizens.

The Smart Village Action Plan is implemented as an important part of the Smart Village implementation because it encourages the collaboration of various parties to work together. Smart Village is an activity that includes various parties to work together to contribute to the implementation of Smart Village for the community. In general, the Smart Village Action Plan focuses on synergizing the locations and activities of agencies/organizations that are deemed

to be in line with the Smart Village program, whether it has been carried out in the village, is currently running, or is the target of the program for the following year. Here are the details of the Smart Village Action Plan location and program:

Ministries/Institutions. The role of Ministries/Agencies (M/A) in the Smart Village Action Plan is coordination across ministries/agencies, policy support and development of the Smart Village program. M/A related to the Smart Village Action Plan include the Ministry of Communication and Information and BAKTI. In more detail, the involvement of M/A in the Smart Village Action Plan as shown in **Table 2**:

Table 2. Synergy of Ministries/Agencies in Smart Village Action Plan

No	Ministries/ Agencies	Action Plan
1	Directorate of Information Empowerment, MCI	Counseling, Training and Mentoring/Facilitating the Adoption of New Technology (Digital Literacy) will be conducted in 2021. Locations include the Districts of Tulang Bawang, Kuningan, Purwakarta, Karawang, Banjarnegara, Magelang, Gunungkidul, Blitar, Situbondo, and Sumbawa.
2	Directorate of Government Informatics Application Services, MCI	<p>a. MCI supports Smart Village by integrating public services</p> <p>b. Technical Coordination Meeting for Development Planning (with Ministry of Home Affairs, Bappenas, Provincial Bappeda) to determine location according to regional needs</p> <p>c. Technical guidance for village government applications in Kulonprogo Regency (2020) is carried out at the following locations:</p> <ul style="list-style-type: none"> • Glagah Village, Temon District • Jatimulyo Village, Girimulyo District • Hargotirto Village, Kokap District • Purwoharjo Village, Samigaluh District • Pagerharjo Village, Samigaluh District • Garongan Village, Panjatan District <p>d. Technical guidance for village government applications in Gunungkidul Regency (2020) was carried out in Bleberan Village, Playen District.</p> <p>e. Technical guidance for village government applications in Blitar Regency (2020) is carried out in Serang Village, Panggungrejo District and Sukosewu Village, Gandusari District</p> <p>f. Technical guidance for village government applications in Gianyar Regency (2020) was carried out in Kerta Village, Payangan District and Taro Village, Tegallalang District.</p>
3	Directorate of Public and Government Information Technology Services, BAKTI	a. The Internet Access Provision Program is one of BAKTI's programs that provides internet network infrastructure in villages in the 3T area or whose areas are still blank. This program has provided internet networks in several places, namely health centers, schools, village offices, places of worship, state security and defense posts, public and community institutions, business services and tourist sites. One of the objectives of this program is for an area to improve performance and grow its economic competitiveness in order to advance and prosper the region. The hope is that with the collaboration through the Smart Village program, internet access assistance can help villages to access information more quickly, updated, and can fulfill the existing 6 pillars of smart villages.

		<p>b. In 2021-2022, 7,904 BTS are planned to be built, around 4,000 to be built in 2021, especially in village offices to accelerate the digital transformation of village government. Cooperating with APTIKA so that not only internet access but also the application.</p> <p>c. Especially for the Disadvantaged Areas, Foremost, Outermost (3T), there are collaborations with the MoV such as digital marketing training, tour guide training and guest house marketing in tourist villages.</p>
4	Directorate of Business Entity Information Technology Services, BAKTI	Assistance in the Village-Owned Enterprise (BUMDes) Partnership program, plans for the development and development of Centers of Excellence in 34 provinces, one of which is in Kubu Raya Regency (West Kalimantan) and Puhwanto Regency (Gorontalo). In addition, there is the development of the second phase of the Capacity Building program.

Private Sectors. The role of the private sector in the Smart Village program is support for strengthening infrastructure, facilities and infrastructure and assistance to village communities as well as other activity opportunities that are in line with the Smart Village program. Then, the partnership function is the basis where local governments, village governments and communities can collaborate to support the Smart Village program. In more detail, the involvement of the private sector in the Smart Village Action Plan as shown in **Table 3**:

Table 3. Synergy of Private Sectors in Smart Village Action Plan

No	Agencies	Action Plan
1	Transhybrid Communication	Internet service cooperation program by the BUMDes of Bintang Baru in Parit Baru Village, Kubu Raya Regency. The program is supported by BAKTI. The PKS was signed on December 4, 2020. The output of the program is the development of BUMDes businesses for internet services for rural communities. The focus is technical training, service, marketing. There are six BUMDes (spread in Sambas and Kubu Raya Regencies) almost 400 points that have been served. Furthermore, there are plans to add BUMDes and develop applications.
2	Shopee	MSME Training and Assistance Program assisted by the Ministry of Villages of PDDT to conduct online marketing Implementation: April 29, 2020 Outputs: 1) Shopee account creation training 2) Product photography practice 3) Copywriting training 4) d. Tips and tricks for selling online at Shopee
3	PT Pertamina	Integrated Service Delivery (Desyandu) Program in Boyolali Regency, Central Java in 2020. The program output is an application system for Si Kembang (Development Information System) Toddlers & Pregnant Women who receive health services and are monitored.
4	PT Astra International	1) Development of the Astra Welfare Village which will be synergized in accordance with the Smart Village aspect. Astra Sejahtera Village (DSA) is spread over 101 villages in Sumatra, 342 villages in Java, 68 villages in Bali and Nusa Tenggara, 130 villages in Kalimantan, 47 villages in Sulawesi, 49 villages in Maluku and 18 villages in Papua. 2) ASTRA's CSR program has 4 pillars, namely health, education, environment, and entrepreneurship 3) Community economic improvement is carried out through training and

		assistance, institutional strengthening, infrastructure assistance and capital and marketing facilitation
5	Telkomsel	<p>Program Name: Baktiku Negeriku</p> <p>a) Baktiku Negeriku Application Training</p> <p>b) Training on developing non-cash payments through digital technology</p> <p>c) Digital Marketing and Content Management Management Training</p> <p>d) Photography usage training</p> <p>e) Entrepreneurship Training</p> <p>Location in Salem village, on January 14-15, 2019.</p> <p>Program outputs include: increasing knowledge and awareness of rural communities on how important access to information and technology is and connecting village communities with business actors so that village communities can be independent.</p> <p>Smart Village location synergy: Tabanan, Blitar, Magelang, and Purwakarta regency.</p>
6	BUMDes Wringin Putih	<p>Internet Marketing Training for Tourist Places in Wringinputih village, Magelang Regency in September 2020. The output of the program is that business units in BUMDes can market all of their products through digital</p>

NGOs. The role of Non-Governmental Institutions in the Smart Village program is to provide assistance to village institutions, human resources for village officials and community groups. Non-Governmental Institutions have a role in bridging the process of communication, mediation and collaboration of various parties in the village as well as other activity opportunities that are in line with the Smart Village program. In more detail, the involvement of Non-Governmental Institutions in the Smart Village Action Plan as shown in **Table 4:**

Table 4. Synergy of NGOs in Smart Village Action Plan

No	Agencies	Action Plan
1	Kolla Education	<p>Coding Mum Program, website creation training for Women, Housewives, MSME actors in 2018. The number of participants was 20 people who were trained by 4 main mentors and 3 local facilitators. The output is in the form of various types of websites (personal, community, company profile, e-commerce, and others) depending on the needs of the participants.</p> <p>Smart Village location synergy: Tulang Bawang District, Purwakarta, Kulon Progo, Tabanan, Gianyar</p>
2	Desa Lestari Assemblage	<p>The Yogyakarta Leadership and Entrepreneurship for Youth (YLEY) program collaborates with Karang Taruna Yogyakarta Province by developing a model for Karang Taruna in Hargomulyo Village (Kokap District) and Pagerharjo Village (Samigaluh District). This program was implemented in 2020, by generating social business initiations by optimizing the potential of village commodities as an effort to provide solutions for the absorption of productive workers, especially during the pandemic. The business entity is promoted as a BUMDes business unit.</p>
3	Semut Nusantara	<p>Program Plan 2021 in collaboration with Next Gen and the Foundation from Malaysia: village community empowerment related to stunting issues and pregnancy monitoring. Digital Posyandu initiation (previously already in Makassar and Lombok)</p>
4	Penabulu Foundation	<p>Situbondo Regency</p> <p>Program: Knowledge Sharing in Sustainable Natural Resources Management through Citizen Journalism. Village area in Situbondo: 1. Selobanteng 2.</p>

Selowogo 3. Patemon 4. White sand 5. Carving pond 6. Cottok bulk 7. Kettowan 8. Sopet 9. Pillow 10. Sumberejo
 Five villages (related to farming communities) Baleagung, Kec. Grabag Ngadirojo, Kec. Secang Petung Karang, Kec. Badongan Greetings, Kec. Regards Madiocondro, Kec. Secang is currently working on health issues (TBC) plans in 190 districts/cities, which can be intervened until there are 30 villages/cities. West Java 25 Regencies/Cities Banten North Kalimantan East Kalimantan Natural Resources Issues Kab. Tangerang (in collaboration with the PMD Office for village financial literacy assistance, 254 villages, the context of village financial development and supervision) Kab. Lahat, developing the Village Citizen Portal for 18 villages Kab. Musi Banyuasin Kab. Grobogan P. Women and Youth incooperation with district DPMD, requests for village assistance related to applications in villages, strategies through news pioneers (porta) nearly 450 villages Empowerment of targeted civil society organizations in all districts/cities 524 districts/cities have 3 long-term achievements 1. smart governance 2. smart economic development 3. multi-stakeholder collaboration

The role of the Government outside the Ministry of Villages, in this case the Directorate of APTIKA and the Directorate of BAKTI - Ministry of ICT, private parties, and NGOs related to internet facilities and infrastructure services as well as empowerment programs in the collaborative process, especially in the commitment to process stage, will certainly accelerate acceleration in Smart Village activities.

From collaborative process, the Ministry of Villages PDDT finally determined several partners to agree on a collaborative Action Plan with the following considerations: (1) the location of the partner program Regency and the Smart Village Regency (2) the sustainability of partner programs in the village (3) willingness to synergize the locations program intervention villages with Smart Villages (4) willingness to facilitate the program towards Smart Villages with a budget from each party. The formalization of the Smart Village collaboration action plan is stated in the legal cooperation document as shown in the **Table 5**.

Table 5. Smart Village Collaboration Action Plan Matrix

No.	Partners	Scope of Collaboration	Locations	Legal Documents
1	Directorate General of Informatics Applications, MCI	Development, application, and utilization of communication and information technology, as well as information dissemination related to the use of technology in village development	Adjusted to the Smart Village location	Agreement
2	Directorate of Public and Government Information Technology Services, BAKTI	Provision of internet access and telecommunication access including but not limited to BAKTI AKSI, BAKTI Signal, and/or BAKTI SATRIA networks	Adjusted to the Smart Village location	Agreement
3	Directorate of Business Entity Information Technology Services, BAKTI	Assistance and training on the utilization of telecommunication network services, implementation of monitoring the quality of communication networks, and development of digital ecosystems for BUMDes	Adjusted to the Smart Village location	Agreement
4	Shopee	Training and mentoring of MSMEs in	Situbondo	Agreement

		villages/BUMDes for digital marketing, starting from creating accounts in the marketplace, product photography, copywriting, and sales tricks		
5	Trans Hybrid Communication	Provision of internet connectivity through BUMDes	Kubu Raya	Letter of Agreement
6	BUMDes Wringin Putih	Internet marketing training for business actors in the village through BUMDes	Magelang	Letter of Agreement
7	Semut Nusantara	Increasing the business and social capacity of BUMDes institutions	1. Kulonprogo 2. Gunung Kidul 3. Gorontalo	Agreement
8	Penabulu Foundation	Sustainable natural resource management through citizen journalism penatani.id	1. Tulang Bawang 2. Boyolali 3. Situbondo 4. Kubu Raya	Agreement
9	Perkumpulan Desa Lestari	(1) Assistance in the development and marketing of village superior commodities (2) Training on the formation of BUMDes	1. Kulonprogo 2. Gunung Kidul 3. Tabanan	Agreement
10	Kolla Education	(1) Formulation of curriculum for village community capacity building (2) Training on website creation (coding)	1. Tulang Bawang 2. Purwakarta 3. Boyolali 4. Kulonprogo 5. Tabanan 6. Gianyar	Agreement
11	PANDI	Provision of village website domains	Adjusted to the Smart Village location	Letter of Agreement

4 Conclusion

Institutional Design which is built based on participatory inclusiveness, forum exclusiveness, clear ground rules, and process transparency supports various parties for various roles and collaborates in Smart Village activities. Various parties have collaborated to carry out village development and community development activities. Action Plan activities become a node where various loci and programs of related agencies/organizations can be collaborated. The important points resulting from the Action Plan activities are:

- The Action Plan is the result of a compromise of a collaborative process as outlined in a collective work agreement (MoU);
- An open and transparent collaboration process by all parties, both those who will carry out the action plan (intervention) and those receiving the intervention, will further accelerate the achievement of the Smart Village program target;
- The role of Ministries/Institutions (K/L) in the Smart Village Action Plan is coordination between K/L, coordination with local governments and village governments and policy

formulation in the development of the Smart Village program. The Smart Village Action Plan activities of Ministries/Institutions are implemented through strengthening infrastructure, synergizing applications and data, increasing human resource capacity related to information and communication technology for village governments and communities and assisting the use of ICT for the community's economy.

- d. The role of the private sector in the Smart Village program is carried out through support for strengthening infrastructure, facilitation of facilities and infrastructure and assistance to village communities to support the Smart Village program.
- e. The role of Non-Governmental Institutions in the Smart Village program is carried out through assistance to village institutions, village apparatus human resources and community groups. Non-Governmental Institutions have a role in bridging the process of communication, mediation and collaboration of various parties.

The parties involved are willing to provide support: infrastructure, application/data integration, application assistance/training for village apparatus human resources, community economic assistance, digitizing MSMEs, BUMDes and other economic institutions, village development, contents of Smart Village development materials. Through Collaborative Government, the initial condition of villages that do not have the capital to become Smart Villages will be able to change significantly with institutional design to collaborate with various parties whose outcomes are villages that are able to optimize IT in accelerating community welfare.

5 Recommendation

The Smart Village Action Plan emphasizes the collaboration aspect of various parties in supporting the Smart Village program. Stakeholders who are committed to synergizing their activities with the concept and needs of Smart Village. The process of synergizing the Action Plan activities accommodates various suggestions and inputs that are important for the implementation of the Smart Village program. The following are recommendations for the Smart Village Action Plan:

- a) Central Government (Ministry of Village, PDT, and Transmigration)
 - 1) Disclosure of information and sharing of roles between parties involved in the Action Plan collaboration is required. The division of the roles of the parties is adjusted to the business processes of the agency/organization. Collaborative government theory can be used in planning village development.
 - 2) The follow-up to the Action Plan matrix/mapping from the parties is the commitment of the parties to support the implementation of Smart Village. Therefore, further coordination and mapping is needed regarding activity interventions
 - 3) The process of implementing the Action Plan needs to include achievements/targets that support the effectiveness of the Smart Village program. The next important aspect is the implementation of monitoring and evaluation with the parties in assessing the process of implementing Smart Village.
- b) Village Government and Village Communities
 - 1) The Village Government and the community are required to maintain the facilities provided by optimizing the function of information technology in achieving smart governance, smart society, smart economy, smart environment, smart life, and smart mobility.

- 2) The sustainability of the program must be carried out by the village government by allocating the Smart Village program activities in the Village Medium-Term Development Plan and the Village Government Work Plan.
- 3) The community must actively participate in managing the facilities and infrastructure for the Smart Village program.

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