

Implementation of Participatory Action Research (PAR) In Community Service Program

¹Nur Afni Khafsoh*, ¹Nur Riani

¹UIN Sunan Kalijaga Yogyakarta, Indonesia

*Corresponding author

E-mail: nur.khafsoh@uin-suka.ac.id

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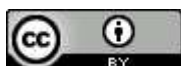
Abstract

Purpose: The purpose of this study is to examine how the Participatory Action Research (PAR) method is applied to the empowerment program and how it is implemented in the Student Community Service Program (KKN). The study aims to see if students can have a positive impact on society and learn from existing social realities, despite the challenges of time and cost limitations.

Method: This research uses a qualitative approach and Participatory Action Research (PAR). Data collection was carried out by observing, interviewing, conducting Forum Group Discussions (FGD), and documentation. Data analysis techniques were carried out by reducing, displaying, understanding data, and drawing conclusions.

Practical Applications: The research results show that the KKN program can be carried out using the PAR approach by making stages: initial mapping, transects, historical tracing, trends and changes, Venn diagrams, flowcharts, problem and expectation trees, and program strategy analysis. The process is intended to find the basic problem and also try to find a solution according to the problem.

Conclusion: From this process, three programs emerged, namely: First, Socialization of environmental awareness; Second, strengthening the waste bank program; Third, FGD between the village government and the waste bank group. These programs address the community's indifference to environmental concerns and the polarization of illegal landfills in Tambi Village, Kejajar District, Wonosobo Regency, Central Java. The community's involvement in implementing this program is very important because the PAR method places the community as the subject of the program. This shows that the KKN program can have a positive impact on society when the PAR approach is used.



Introduction

The role of students is one of the driving elements who have a central position in society. High idealism adds to the urgency of the student movement in building change. The high curiosity of students makes them an age group that has a great opportunity to become important agents in society. Along with this explanation, currently the government, through the Merdeka Belajar-Kampus Merdeka (MBKM-Independent Learning-Independent Campus) program, also provides opportunities for students to be directly involved in society (Kemendikbud 2021). The form of involvement is through the Thematic Community Service program. The equivalent of credits in the Thematic Community Service program method is equivalent to 20 credits.

Currently, the KKN program has not addressed community problems. The program is still ceremonial and only carries out existing programs such as teaching the Al Quran to children (Salehudin 2017). Meanwhile, basic problems in society such as waste management, economic development, and community development are still rarely addressed. The most common reason is because of students' lack of self-confidence and readiness to get involved in fundamental problems in society. This then requires readiness from the institution to provide provisions and mentoring programs that are structured and targeted. Therefore, one solution is to apply the Participatory Action Research (PAR) method as a method that allows connecting community needs with the role of universities in the form of community service in the MBKM concept. The application of PAR in KKN activities, apart from being a means of increasing community independence, also provides students with research experience that produces outcomes as well as practice as agents in society.

One of UIN Sunan Kalijaga Community Services which applies the PAR method is in Tambi Village, Kejajar District, Wonosobo Regency, Central Java. The program is about village waste management, a fundamental problem in society. However, during the program, the ideality of the PAR method was not achieved perfectly (Khafsoh et al. 2021). Therefore, this research wants to see how the PAR method is applied and its implementation in the KKN program. Community empowerment studies using the Participatory Action Research (PAR) approach have been widely used in community programs such as Student Community Service. Many universities use this method so that community service goals reach their targets. However, each KKN program has its characteristics, especially now that the community service program has developed into a thematic one. This means that the issue of locality is one of the things that needs to be considered in program implementation.

The use of the PAR method is also widely used in community service programs. As mentioned at the beginning, not many community service programs target serious programs in society such as the economic and environmental domains (Salehudin 2017). However, several actions take up environmental issues, such as Hayati's research on Creating Santri Awareness of the Environment through the Go Green Movement (Hayati and Handayani 2021). This research has quite convincing results by changing the students' lifestyle in an environmentally friendly way. However, the scale is quite small because it is only in the Islamic boarding school area. This is quite an obstacle if contextualized in community service programs which generally go directly into the field and deal with wider community groups. The application of the PAR method is well exemplified in Festian Cindarbumi's research on Community Empowerment through Training in Making Chips from Krisbog (Banana stem) which carried out mapping of the process of implementing activities with the community (Cindarbumi and Mufid 2021). This application is small scale because it aims at one target group, namely the PKK group (Group of Family Welfare Development). Likewise, Dian Risma's research examined the Okra Farming Women group which also specifically targeted 1 group in society (al. et al. 2021). So, when the problem concerns entire groups of society, such as the waste problem, a more structured program formulation is needed. Apart from the research above, PAR is widely used in educational studies such as improving learning during the COVID-19 pandemic. The use of PAR is considered to provide an alternative method of

empowerment to make learning more effective (Qulloh 2021; Amelia 2021; Maulana 2021; Ningsih 2021; Lestari, Ardian, and Harahap 2021; Tiwikrama, Afad, and Hakim 2021). This research provides an overview of how PAR is applied in education, apart from being a training method, but also as a means of maximizing learning so that understanding is easily conveyed to students. Especially during the pandemic with all the existing limitations, the program targets must be finalized to achieve the program targets.

From previous research, we obtained an overview of the application of PAR in empowerment programs, including the student community service program as one of the community service programs. However, these studies have not explained how the KKN program can be widely implemented in a society where the issue is a public issue, such as waste management. Seeing the most basic problems in society which can be seen from collective community anxiety, the formulation of solutions must also involve community involvement. This needs to be studied in research based on the student community service program to get an idea of the programs that can be carried out in the community, especially with the PAR approach in resolving environmental issues such as waste management. The Participatory Action Research method (PAR) is a participatory research method. This means that this research does not make society the object of study but instead the subject of the development of society itself. Groups or communities are invited to be involved in empowerment programs to jointly transform in developing and strengthening groups.

There are at least three main pillars in this PAR method, namely: research methodology, action dimension, and participation dimension (Tambubolon 2003). The application of research methodology is a research method regarding the potential of the KKN program which is carried out in a participatory manner. This means that students involve the community in determining the program and in implementing the program. Apart from that, the action dimension must refer to the progressive transformation of society. Lastly is the participation dimension which sees that the movement for renewal in society must be born from the community itself so that later the movement will be developed by the community itself.

Regarding waste management programs, the community must be involved in program formulation. Starting from people's concerns, they were then initiated to carry out a movement through dialogue together to formulate a program. Students as facilitators could intervene with residents to form a constructive dialogue. Furthermore, the result is a form of management that originates from the initiation of the community itself. The fundamental difference between the PAR method and other methods is the output produced. If conventional research results in reports, then PAR is more oriented towards changing social conditions by actualizing programs in society. Research activities in collecting data are also a step in the process of public awareness (Dayamaya 2019). The PAR research process is to invite the public or community to study the problems in society that are being experienced, external parties (Students who conduct the community service program) as facilitators who accompany Community Leaders (community members who are concerned about the issue being initiated). The community is accompanied in formulating the root of the problem and guided in analyzing it. The result is a solution to existing social problems. In practice, it is the community that plays a role in implementing the solution formulation.

Method

This research was conducted in Tambi Village, Kejajar District, Wonosobo Regency, Central Java. This research location was chosen because Tambi village is one of the UIN Sunan Kalijaga community service locations that implement PAR in its programs. Apart from that, based on researchers' observations, after KKN completed its program, the resulting movement was still ongoing and became one of the village's priority programs. This research uses qualitative methods with field study research techniques. The research approach used is Participatory Action Research where research involves active community participation thereby increasing community awareness and the community's active role in solving existing

problems (Chairulhaq et al. 2021).

The data sources in this research were obtained based on two sources: primary data sources and secondary data sources. Primary data sources were obtained through interviews in the form of FGDs and interviews using in-depth interview techniques with several informants who were directly involved in the student community service program. Apart from that, data sources are also obtained through direct observation techniques involving researchers in the daily activities of the research object and documentation which includes notes or documents directly related to the research object. Meanwhile, secondary data sources are data sources that strengthen primary data in the form of documents, related research results, and all forms of data that help the primary data analysis process. The data analysis technique was carried out using four steps. The first step is to carry out data reduction. Data reduction was used to find out information related to research, namely the issue of waste management in Tambi village. The second step is the data display process. Data display is carried out by sorting the data followed by the third step, namely the process of understanding the data and conclusions (Miles and Huberman 1992).

Result

After students complete the community service program in Tambi Village. Then the program was stopped. It makes the program unsustainable. However, this can be anticipated by carrying out follow-up programs. So, through Community research assistance from LPPM (Research Institutions and Community Service) UIN Sunan Kalijaga Yogyakarta, the program can be continued. What is done in this follow-up program is to continue the community service program conducted by students (KKN) that is already running. The approach used is a PAR approach which focuses on problem solving. In contrast to the ABCD approach which focuses on location potential. The choice of PAR was also based on the urgent situation regarding resolving the unresolved waste problem. Even though the impact is very broad for the people of Tambi Village themselves and the wider community. Apart from that, the unavoidable environmental impacts are important to concentrate on in solving this waste problem.

The Mapping process has been carried out by the student by describing the shape of the community service location on the Autocad application. Students carry out mapping by going around the village and taking note of the strategic places. In the Mapping process, students work together with native residents so that the data obtained is more accurate. The description of field conditions can be explained as follows.

Figure 1. Map of RW (Hamlet) Number 06 Tambi Village, Wonosobo Regency



A: State Elementary School 2 TAMBI
B: MUSHOLA AL-HUDA (Small Mosque)

Source: Private Documentation, 2024.

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From this mapping, neither students nor residents could find large and adequate land for waste processing. This is a consideration for students when implementing the program. This challenge became increasingly difficult and decided to involve the Village Government. However, after discussions with the Village Government, it turned out that there was no suitable place to be used as a waste management location. However, at least this mapping helps the next program process.

Transect is a direct observation technique in the field by tracing the field location. The aim is to find out about the potential and problems of settlements, including land, water sources, spatial planning, vegetation, and land management. The description of the transects carried out in Tambi Village can be explained as follows:

Table 1. Transek at Tambi Village

<i>Aspect</i>	Settlement	Soil	River	Plantation
Land Use Management				
Soil Conditions	<ul style="list-style-type: none"> • Solid Soil 	<ul style="list-style-type: none"> • Loose soil for farming certain vegetables and fruit 	<ul style="list-style-type: none"> • Rock • Sand 	<ul style="list-style-type: none"> • Loose soil
Types of Plant Vegetation		<ul style="list-style-type: none"> • Vegetables: Cabbage, Potatoes, Carrots, Chili • Fruit: Bananas, Oranges, tamarillo 		<ul style="list-style-type: none"> • Tea • Coffee
Benefit	<ul style="list-style-type: none"> • Build housing • Place for selling 	<ul style="list-style-type: none"> • Agriculture is the majority of society • Garbage dump 	<ul style="list-style-type: none"> • Irrigate agricultural land • Resident's rubbish dump 	<ul style="list-style-type: none"> • Tea Factory • Tourist attraction • Garbage dump
Problem	<ul style="list-style-type: none"> • Densely populated area 	<ul style="list-style-type: none"> • Use of Pesticides reduces fertility • Land belonging to the village government is used as an unmanaged dumping ground 	<ul style="list-style-type: none"> • Polluted water • Full of rubbish • Damages river ecosystems 	<ul style="list-style-type: none"> • Garbage has piled up in several tea plantation areas
Actions that have been taken	<ul style="list-style-type: none"> • Storey House • Expansion of residential areas 	<ul style="list-style-type: none"> • Socialization of pesticide use • Transfer of waste to another waste disposal site 	<ul style="list-style-type: none"> • Installation of signs saying 'no littering' 	<ul style="list-style-type: none"> • Installation of signs saying 'no littering' • Calling of local area leaders • Transfer of waste-to-

Hope	<ul style="list-style-type: none"> Expansion of residential areas 	<ul style="list-style-type: none"> The government provides cheap fertilizer Created another dumping site 	<ul style="list-style-type: none"> Tempat Pembuangan Sampah yang baru 	<ul style="list-style-type: none"> waste disposal sites People do not throw rubbish on the plantations
Potency	<ul style="list-style-type: none"> Minimalist house construction model 	<ul style="list-style-type: none"> People have farmer groups for coordination Residents care about the condition of the soil because it concerns income 	<ul style="list-style-type: none"> Abundant clean water Clean water sources are maintained and handled well (commercially) 	<ul style="list-style-type: none"> Plantation Management collaborates with youth for tourism Coordination with the village government is going well

Apart from that, mapping community waste quotas is important. This is to find out the average amount of residue produced by the Tambi Village community. The first thing to do is determine the instruments and measuring tools. After that, students conducted random interviews with the public. The data results were analyzed and produced the following data:

Table 2. Sample Waste Volume

No	House Category	Number	The volume of waste produced per day per house (m3)	The Volume of all waste per day (m3)	The volume of all waste per three days
1	a house that has a shop	14	0,00825	0,1155	0,3465
2	house type 48	86	0,00675	0,5805	1,7415
3	house type 36	24	0,003	0,072	0,216
4	The house consists of two families	20	0,006	0,12	0,36
5	public facilities	2	0,0135	0,027	0,081
	Total	146	0,0375	0,915	2,745

The table is an illustration of the spatial mapping plan in hamlet number 06 of Tambi Village. This description will later become a recommendation for representative final disposal site locations. Samples were only taken in one Neighbourhood because of limited human resources in this action. However, at least this is an illustration of the volume of waste produced by people in Tambi Village, especially representing one Neighbourhood.

Historical research is a way to find out what has happened in the area. In this case, it specifically concerns the waste problem which has been a problem for a long time in Tambi village. This technique is to see what changes have occurred in the area.

This process is carried out by first involving native people who have lived in Tambi village for a long time so that they know what changes have occurred. This process is accompanied by people who are directly involved in the waste processing process carried out in Tambi Village. The history of the processing process can be seen in the chart below:

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Table 3. History Search

No	Period	Activity	What Caused the Activity	What is the Impact on the People
1	2018	Relocation of unmanaged waste on land owned by the village government	<ul style="list-style-type: none"> • Garbage scattered on land belonging to the village government • No sorting • No regular processing • Waste volume is too large • Too close to residential areas 	<ul style="list-style-type: none"> • The strong smell reaches residential areas • Disrupt the mobility of residents
2	2020	Removal of accumulated rubbish in Patean (Land Owned by Tea Factory)	<ul style="list-style-type: none"> • There is no waste sorting at the community level • No regular processing • Waste volume is too large • Too close to residential areas • Constrained by operational costs 	<ul style="list-style-type: none"> • Disrupt the mobility of residents
3	2020	Establishment of the Mandiri Sejahtera Waste Bank	<ul style="list-style-type: none"> • Concerns about the amount of unmanaged waste • Initiative from Tambi Village and Tea Factory 	<ul style="list-style-type: none"> • Society has environmental concerns • Some people are involved in waste processing programs
4	2020-2022	Socialization from various student community service from some Universities (UGM, UIN, UNSIQ)	<ul style="list-style-type: none"> • Seeing that the waste problem is still a fundamental problem in Tambi Village 	<ul style="list-style-type: none"> • Gajah Mada University (UGM) provides cloth bags for shopping, provides drums for burning rubbish • State Islamic University (UIN) carries out awareness raising regarding waste and provides recommendations for solutions to villages • Science and Al Quran University (UNSIQ) makes products from plastic waste

The data above explains how waste management has been carried out by several previous programs. However, until now there has not been much visible impact. Efforts carried out both internally and externally are still being carried out. An important note from the process above is the lack of citizen action in finding a solution to this.

Change and trend charts are stages in PAR that can help determine changes that occur in society. This stage is shown with a chart. At this stage, researchers discuss changes with the community. The changes in society can be described below:

Table 4. Trend and Change

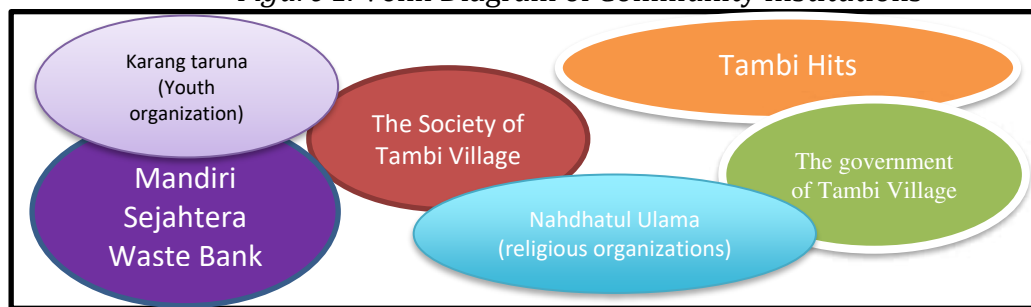
	2019	2020	2021	2022	Information
Total population	0000	0000	00000	00000	More people are born
Number of Residences	0000	0000	00000	00000	The need for housing increases
Waste Disposal Land	0000	000	00	0	Limited land means there is no land to function as a waste disposal site

The results from the chart above are the result of interviews and discussions with a

community leader named 'R' who is a community leader in Tambi Village. This is reinforced by BPS data from year to year (BPS, 2020). However, it is clear that the rubbish dump in Tambi village is increasingly being eroded and the land designated for housing is also expanding. This shifts the need for land for public facilities such as rubbish dumps.

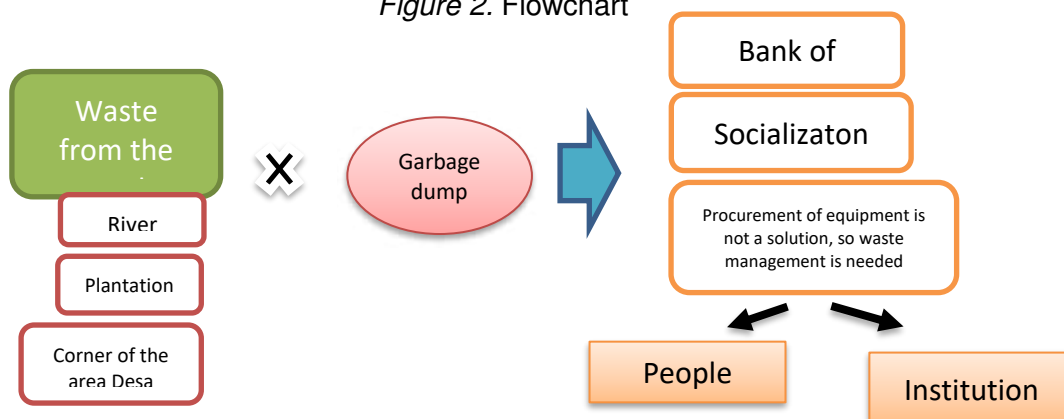
A Venn diagram was carried out to see the relationship between the community and various institutions in the village. This also facilitates the public to examine the role and interests of institutions. Those studied were both government and non-government institutions. The description is as follows:

Figure 1. Venn Diagram of Community Institutions



Flow diagrams describe the flow and relationships of everyone involved in the process of change in society. The goal is to analyze and study a system. This is discussed with the community to create a path for change. The flow description can be explained below:

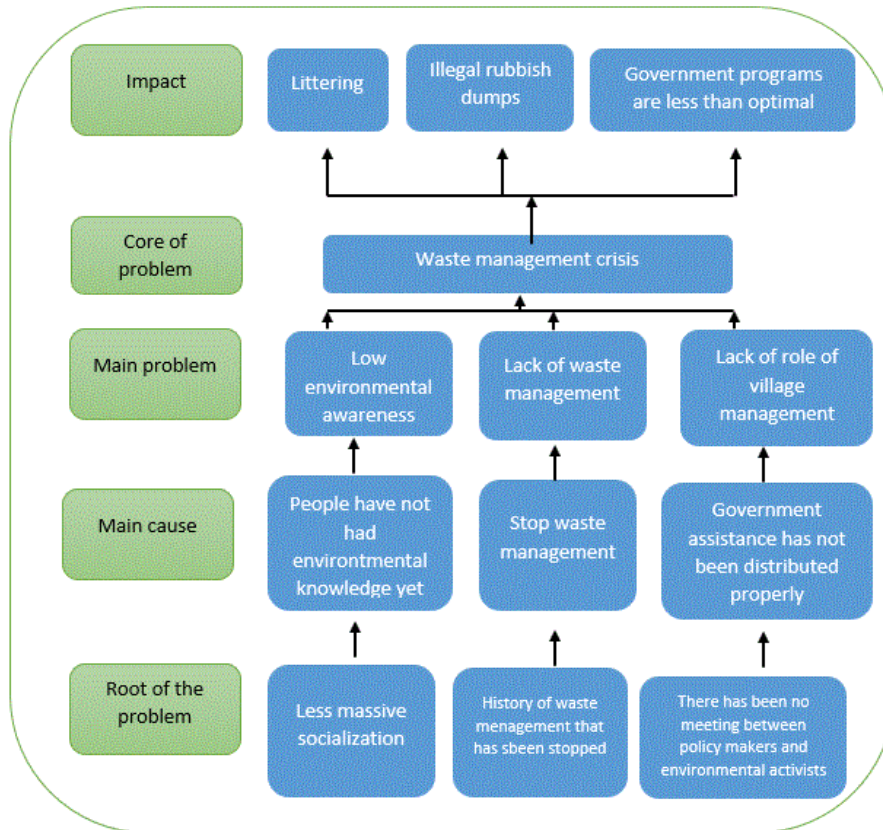
Figure 2. Flowchart



The image above explains how waste is generated until its completion. Referring to the flow diagram image above, it can be explained that waste is produced by the community but cannot be thrown away because there is no official landfill. So, people throw it in rivers, plantations, and even corner areas of villages. After that, the solution that can be taken is to maximize the potential of existing Waste Banks and socialize them to the community. Meanwhile, the community considers the creation of a new landfill to be the final solution because historically there have been two lands that were used as landfills but in the end they caused problems.

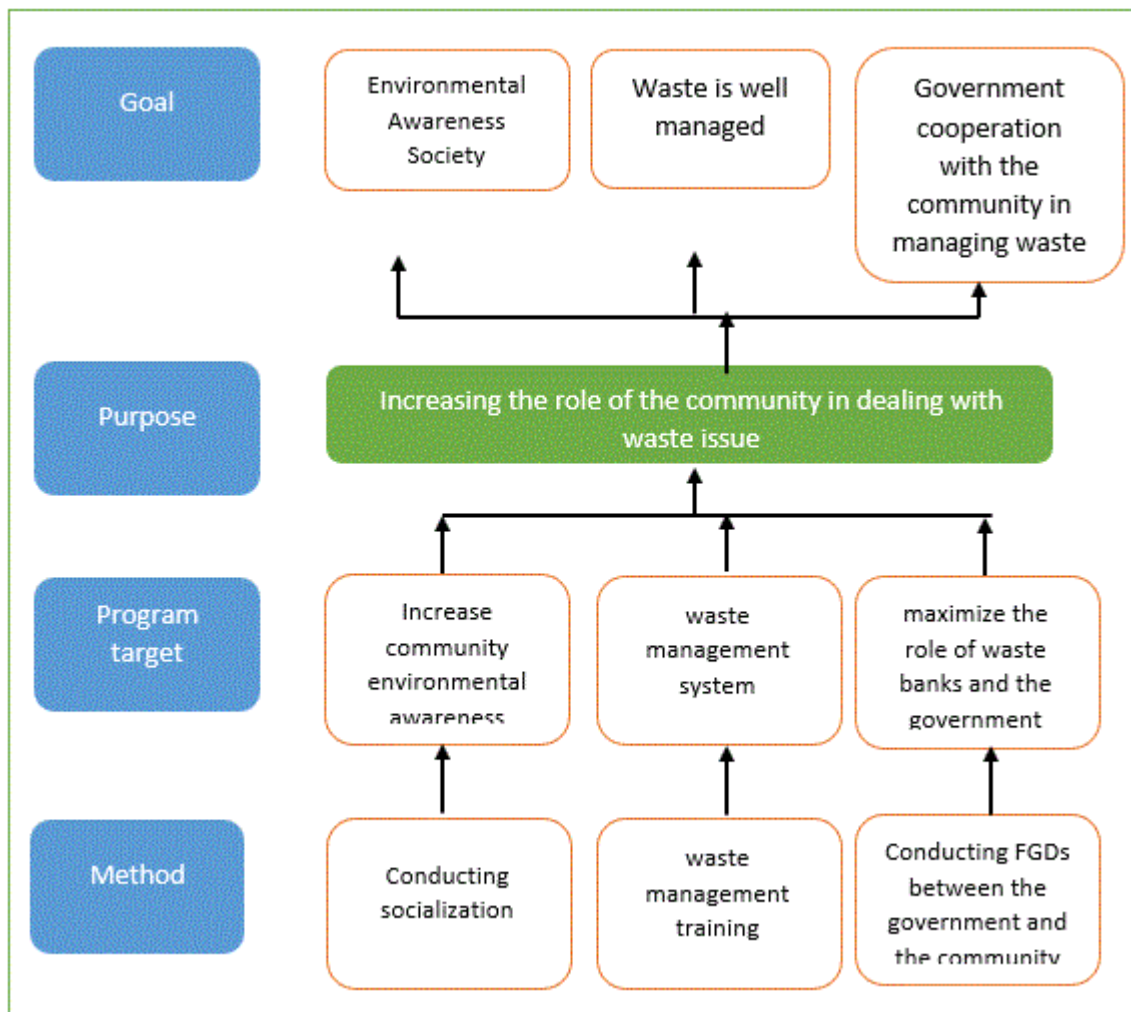
A problem tree is a method used to identify problems. This tree is used to describe problems in a structured manner and determine priority problems. This is important to use to achieve the goal of a solution that is solution and right on target. The tree of problems and hopes can be explained as follows:

Figure 3. Tree Problem Analysis



After determining the problem tree as described above, the next step is to find a solution by creating a hope tree. This is done to the community so that they can also determine the right solution. The description of the wishing tree can be explained as follows:

Figure 4. Tree of Hope



After knowing community expectations, the next step is to analyze appropriate program strategies. This is adjusted to a series of analyses starting from knowing the root of the problem, the desired expectations, and implementation into the program. The following is an analysis of the program strategy used:

Table 5. Program Strategy Analysis

Problem	Purpose/Hope	Program
Low Environmental Awareness	Environmental Awareness Society	Socialization about waste management
No Waste Management	Waste is well-managed	Strengthening the Waste Bank program
Lack of Role of Village Government	Community and Government cooperation in managing waste	Forum Group Discussion between the Village Government and the Tambi Waste Bank

After carrying out this analysis, the next step is to implement the program. This program is divided into three things, namely:

1. Socialization regarding Environmental Awareness
2. Strengthening the Waste Bank Program
3. FGD between the Tambi Village Government and the Mandiri Sejahtera Tambi Waste Bank Group.

Discussion

The implementation of the program is carried out as is the Student Community Service process in general. In the first week, what was done was to do a simple transect. Transect itself is an activity to explore an area to determine physical conditions such as soil, plants, social conditions, community activities, division of labor, social problems, and so on (Hosaini & Rinwanto, 2020). This is done before the Student Community Service is deployed. The results of this observation are used as a starting point for determining the proposal submitted to the Institute for Research and Community Service. Apart from that, this observation process is also guided by Field Supervisor Lecturers (DPL) through a discussion process to determine the appropriate program description.

After students are given material provision. Firstly, students carry out a field assessment. In this process, students observe the location by looking at the potential and challenges faced at the research location. This is done by conducting dialogue with the village government, community leaders, youth leaders, and the general public. After that, it was decided that the big program that needed to be carried out and was very urgent was regarding waste management. However, seeing such a big challenge, students cannot afford to solve it themselves. As a result, the Participatory Action Research approach was decided as a tool for implementing the program.

This process begins with door-to-door visits to community leaders such as village government, community leaders, Kyai (Islamic religious leaders), and youth leaders. Apart from that, students also met people they met after praying at the mosque. This is to hear information about the condition of the village and the community's views on the waste issue. In this process, the importance of environmental awareness is also instilled so that people start to care about the state of their environment. Moreover, the absence of a landfill in the village has resulted in people polluting the environment by throwing away rubbish carelessly.

Apart from that, this initial process is also carried out in the form of a Seminar. Through the assistance of the Tambi Village government, students carried out an environmental awareness socialization program by inviting the well-known environmental figure, Mr. Farid Gaban, who is an environmental figure who has been dealing with environmental issues for quite a long time. In this case, Mr Farid Gaban conveyed the dangers of the impact of waste if it is not managed properly. He also conveyed the general typology of waste problems in Indonesia and the role of stakeholders in solving this problem. Apart from that, another figure presented was Mrs. Walimah who is the chairman of the Mandiri Sejahtera waste bank. It is hoped that Mrs. Walimah can inspire the participants to work together to manage waste in Tambi village. Mrs. Walimah focused on how to initiate a Waste Bank and what its role would be for waste bank members and also the environment.

The participants presented were the people who live in Tambi village, including community leaders, RW (Hamlet) and RT (neighborhood) heads, youth, and also people who are concerned about waste issues. This program aims to raise awareness about waste in the community so that they do not throw rubbish carelessly, especially in illegal rubbish dump sites which are now starting to appear in several corners of the village. At least, having community figures present can help the community to understand the waste issue faced by people. As stated by the village head, it is hoped that this program will give rise to community initiatives to create a movement similar to the Waste Bank movement in other RW (hamlet):

Nah kita Alhamdulillah RW 10 ada bank sampah, saya sudah edukasi bu lewat RW PKH, lewat RT RW yo ditanyakan bok monggo corone membuat bank sampah seperti ya nanti itu terurai dan bisa dijual, bok ke RW 10 tapi kadang juga tidak ada tindak lanjut kadang bahasnya lewat WA, itu ke sana lo ke bang sampahnya, yo dijadwalkan di rumah diproduksi pribadi yo seperti itu. (Interview of Head of Tambi Village. 2022).

The Village Head's want to spread influence to other RW (Hamlet) is realistic because

he has the power or ability to do so. However, if it is not based on a real program, it seems that this will be difficult to realize. Moreover, only through advice. for the community, this is difficult to realize in society. The Village Government should carry out massive programs if it wants to provide space for the community to become aware of the waste issue.

Still regarding the socialization of waste management. Students realize that handling waste cases requires public awareness. Capturing this idea, to optimize socialization it is necessary to engage young people. Youth generally have a great awareness of environmental issues. Therefore, there is a need for a special program to discuss environmental awareness but packaged with youth-friendly activities. Therefore, students need to carry out a separate program for village youth to implement this program. The program is carried out by watching films together related to waste issues. Apart from that, the event was carried out by providing enthusiasm for pursuing education and socializing scholarships. There were quite a lot of participants from various ages and levels of education. Considering that in Tambi Village there are not many children who continue their education to graduate degrees, this program is also intended to provide discourse about what college life is like and provide motivation to study to Tambi youth. It is hoped that this program will have a positive impact on youth, especially in developing abilities.

Figure 5. Video Socialization and Learning Motivation Program



Source: Private Documentation, 2023.

This program is not only a student community service program but was also initiated by the youth of Tambi Village. Many technical matters are carried out by young people. This is important considering that PAR programs should emerge from community awareness to carry out movements in their communities. This awareness increases through the presence of students who try to inspire a spirit of change by youth leaders.

Making videos related to waste management activities is carried out as a form of outreach to the community. The video was broadcast on Instagram belonging to the Tambi Village Government. However, seeing that there are not too many followers and the public's less than enthusiastic response, this doesn't seem to have much of an impact. However, this does not yet have a significant impact considering that village communities do not rely too much on social media and digital information as sources of information that can be used as references. People generally carry out programs if they have received a direct call from a community figure. So, creating digital information media does not have a significant impact. One of the big goals of the waste management program in Tambi Village is to spread the spirit of environmental awareness to the community. To support this, what is done is to invite other RW heads to take part in the waste management program. This program is carried out so that RW (Hamlet) heads have the enthusiasm to form a Waste Bank in their respective areas. In

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this program, material is provided regarding waste bank management from how to set it up to how to develop it. Present was Mrs. Sriyanti, who is the 1st winner in the 2021 Wonosobo Regency level waste management competition. This is expected to inspire the spirit of the Waste Bank group and also inspire other RWs to do something to protect the environment.

The Mandiri Sejahtera Waste Bank is a response to the waste crisis in Tambi Village. Not many people are moved to act when they see the problems in society. So, it is important to develop the Mandiri Sejahtera Waste Bank group in Tambi Village. The development carried out is by providing tool assistance, program development, and product innovation. This is a concentration that needs to be done to develop the potential of the Mandiri Sejahtera Waste Bank.

One thing that students can do to contribute to the community at the location is to analyze field conditions and help find solutions. Students do not have authority over the government, but students can reconcile these two interests. Society needs programs to solve social problems, while the government needs to know and overcome problems through programs to deal with problems appropriately. Students have a role in bridging these interests. The student's role is to provide recommendations through social analysis to the Village Government so that they are allocated a program that focuses on waste management, which has so far been an unresolved problem. The article product containing analysis and recommendations to the Village Government was presented at the 2021 ACCEPT (Annual Conference on Community Engagement for Peaceful Transformation) program organized by LPPM UIN Sunan Kalijaga Yogyakarta (Khafsoh et al., 2021). The results of these recommendations were then discussed in the Musrembangdes (Village Development Planning Deliberation) in Tambi village in 2022 and resulted in a program for making waste chopping equipment and an outreach program to the community.

Alhamdulillah kami juga sudah difasilitasi untuk alat pencacah, mudah-mudahan kami bisa melaksanakan atau kita bisa mempergunakan dengan sebaik-baiknya untuk alat itu tadi. Mudah-mudahan yang kemarin kita memang sudah sampai di tempat bank sampah tapi karena kita belum serah terima, jadi kan belum bisa memperkirakan secara maksimal. (Wawancara Kepala Desa Tambi. 2022).

From the information above, it can be explained about the role of the village government in distributing aid to the Waste Bank according to discussions at the 2021 Musrembangdes. However, once it was available, it was not immediately used because there had been no handover process. Apart from that, there was also no training on how to use the tool, so the equipment was stalled for several months. During the FGD and seminar process, the tool handover process was carried out and at the same time, the equipment was tested by members of the Mandiri Sejahtera Waste Bank. However, the purchase of waste chopping equipment as a result of Musrembang was not to the needs of the Waste Bank and was not to the recommendations of the report made by students who conduct community service at Tambi Village. Another program is to collaborate with other Waste Banks in Wonosobo Regency. It is hoped that this Sharing Session will be able to improve the performance of the Mandiri Sejahtera Waste Bank by learning from those who have more experience. This was done by bringing together members of the Mandiri Sejahtera Waste Bank in Tambi Village with the Waste Bank group which had won the district-level Waste Bank. Collaborating with fellow activists will further encourage the enthusiasm and motivation of its members. Marketing also needs to involve broader elements. As stated by the speaker from the Kertek District Waste Bank, Mrs. Sriyanti when giving a seminar, the Wonosobo Regency Waste Bank network has been formed and has its marketing specifications. For example, for those who focus on collecting plastic waste, several waste banks accept it such as cardboard, paper, plastic bottles, glass bottles, and even used cooking oil.

The big dream for the Waste Bank Group is to expand to other community groups.

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This was attempted by inviting other RW heads to find out how to form and run this program. Although, the biggest obstacle is to raise awareness of the importance of environmental sustainability and make it a reality in real activities. This is done by inviting policymakers to think about the possibility of establishing a Waste Bank in their respective regions.

Figure 6. Waste Socialization with Stakeholders



Source: Private Documentation, 2023.

Mandiri Sejahtera Waste Bank has a waste collection program such as cardboard, plastic, and other inorganic waste. Unfortunately, collecting organic waste is not yet a viable program. So far, organic waste has only been used to make maggots. However, considering the potential for abundant organic waste, it is necessary to develop products. One thing that was decided was composting. Compost is considered very promising considering that in Tambi Village the majority of people are farmers, but compost must be purchased from outside the village because no one produces compost fertilizer. This activity can be carried out because organic waste-chopping equipment already exists, but the Waste Bank group has not been able to use it. This is a problem because the tool has not been used even though it has been purchased. So this program is important so that this tool worth millions can be utilized. This program is carried out by holding workshops. Speakers who are competent in the field of waste management are invited to provide training. Mr. Miftahuddin from the Wonosobo Waste Bank, who has received awards several times for his dedication to the Waste Bank program, was asked to be a speaker in this program. This program was carried out with members of the Waste Bank group participating. This is also supported by a community-based research program carried out by LPPM UIN Sunan Kalijaga Yogyakarta.

Figure 7. Training in Making Compost



Source: Private Documentation, 2023.

The next program is about marketing. Fertilizer products produced by the Mandiri Sejahtera Waste Bank will later be marketed. So, you need knowledge about marketing.

Currently, the most viable marketing method is online. This training was carried out by inviting presenters who already have marketing projects in the digital marketing world. Mr. Adlan Nufahaidar is a graduate of AMIKOM Yogyakarta who focuses on digital marketing and was asked to provide digital marketing training to the Mandiri Sejahtera Waste Bank group. We realized that many members of the Waste Bank group were not technologically literate, therefore we invited young people from residents to learn together about digital marketing. However, bank members also delegate their members to study together. Apart from knowledge about digital marketing, this program also creates product labels to make the product appear more attractive. The following are the labels for the products that have been made:

Figure 8. Waste Bank Product Label



Source: Private Documentation, 2023.

This program is a long-term program with the hope that the waste bank group can develop other potential, especially to generate income for its members. Apart from that, this is a good thing to do to advance the product, especially in terms of product appearance. One of the conditions that is needed is a good relationship between the village government and the waste bank group. So far, the Waste Bank feels that the Village Government has paid little attention to the welfare of the Waste Bank. As stated by a waste bank member below:

Mohon kesedian untuk Bapak Kades sendiri untuk memberikan fasilitas kepada kita semua yang layak. Kami harapkan untuk memfasilitasi yang pertama, karena tempat bagi kami untuk kita memajukan yaitu tempat itu sendiri nggih, yang lainnya Alhamdulillah kami juga sudah difasilitasi untuk alat pencacah, mudah-mudahan kami bisa melaksanakan atau kita bisa mempergunakan dengan sebaik-baiknya. Mudah-mudahan yang kemarin kita memang sudah sampai di tempat bank sampah tapi karena kita belum serah terima, jadi kan belum bisa memperkirakan secara maksimal. Sementara dari kami harapan kami kedepannya mudah-mudahan desa Tambi atau dari pemerintahan itu ada dana untuk bisa mengalokasikan untuk tempat kami terutama bank sampah, yang harapan dari kami kami menginginkan tempat yang strategis pak. Sebenarnya yang dari lapangan voli itu tadi. Kami harapan kami bisa terpenuhi dari Bapak Kadesnya, harapan kami mudah-mudahan kita dari RW 10 ibu-ibu bisa melaksanakan kewajiban kita sebagai masyarakat umum terutama masyarakat kalangan bawah. Kita bisa sadar dengan adanya bank sampah itu tadi nggih. (Wawancara Anggota Bank Sampah, 2022).

Several members took turns conveying their input to the village government. Their demands are for the village government to start providing treatment for their problems. As is the case regarding the location of the Waste Bank, which is currently still moving. Apart from that, they asked about the problem of the waste chopping equipment which had not been handed over until now so it had not been used. This is what needs to be held to ensure that the aims and objectives of government programs are clear, especially in terms of providing

equipment. This program was certainly appreciated by the village government because it had held an FGD in which the waste bank group, who incidentally were residents of Tambi Village, expressed their problems. For the waste bank group, this is also a way for their voices to be heard by the government.

Conclusion

Waste management is an issue that until now has not found a solution in Tambi Village, Kejajar District, Wonosobo Regency. Residents do not have a waste management system so the rubbish produced by residents is thrown into the river or even illegal landfill sites appear. If left unchecked, this will be detrimental to residents. So, the potential for campus service to the community can be carried out by focusing on this issue. One of the campus's mainstay programs is sending Student Community Service to try out experiences in a place and learn about existing social realities. So, this research wants to see the potential of the student KKN program using the Participatory Action Research (PAR) approach, which is one of the methods used in empowerment programs, especially at the Directorate General of Education, Ministry of Religion of the Republic of Indonesia. The process of using PAR for Student Community Service programs is an important thing to do and is possible considering that up to now Student Community Service programs have been more of a ceremonial event. Several processes that need to be carried out in implementing a Student Community Service program using PAR include Preliminary Mapping, Transect, Historical Search (Timeline), Trend and Change, Venn Diagram, Flow Diagram, Problem Tree and Hope, and Strategy Analysis. In addition, some programs are generated after analyzing the above processes. Several programs carried out to manage waste in Tambi Village are Socialization of Environmental Awareness, Strengthening the Waste Bank Program, and FGD between the Tambi Village Government and the Mandiri Sejahtera Tambi Waste Bank Group.

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