# Kimihiro Hino

Plus Bouhan: A new community-based approach to crime prevention in Japan

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Plus Bouhan: A New Community-based Approach to Crime Prevention in Japan

**Abstract** 

The number of crime prevention volunteer organizations in Japan has continued to increase and at the end of

2014, there were some 48,000 such organizations with a total of approximately 2.8 million members.

However, other statistics show that the majority of volunteers are men in their late seventies In response to

this situation, the author advocates the "Plus Bouhan" (Plus Crime Prevention) approach, which adds aspects

of crime prevention to daily activities in communities.

The aim of this study was to investigate whether two activities carried out by "Plus Bouhan" could diversify

the range of crime prevention volunteers and what influence they could have on volunteers' activity and

attitude. The first practice added a crime prevention aspect to a daily gardening activity and the second added

a crime prevention aspect to walking and jogging.

The volunteers completed questionnaires and the results showed that residents who had previously been

indifferent to crime prevention activities took part in these activities. In particular, many office workers in

their thirties and forties took part in the second activity. These results show the utility of "Plus Bouhan" in

diversifying the range of crime prevention volunteers and changing their activity and attitude.

Keywords: Volunteer; Citizen Participation; Sense of security; Social capital; Aged society

#### 1. Introduction

From the end of World War II to 1980, the number of annual crimes reported in Japan ranged between 1.3 and 1.5 million. A common saying that "water and security are available for free" represented the low crime rate for many years. However, crime began to surge in 1995, the same year 6,434 people lost their lives in the Great Hanshin Earthquake and a sarin gas attack was carried out in Tokyo's subway system. Reported crimes reached a peak of 2.85 million in 2002, and in September 2003, the Ministerial Conference on Measures against Crimes, which comprises all cabinet members and is led by the Prime Minister, was established to formulate an "Action Plan for Realizing a Powerful Society against Crime."

As a result of various crime prevention measures, by 2012, the number of reported crimes had decreased to less than half the peak number reported in 2002 (Fig. 1). The number subsequently decreased to less than 1.2 million in 2015, the lowest since World War II. Japan has a lower crime rate (number of recorded crimes per 100,000 people) for homicide and theft than France, Germany, the United Kingdom and the United States. The theft rate in Japan is less than 30% that of the United States, while the homicide rate is less than 20% (Fig. 2). However, the nation's sense of security regarding crime remains low (Cabinet Office, 2012) and in addition to reducing crime, improving citizens' sense of security is thought to be important.

### 1.1. Crime prevention volunteers

One of the reasons for the decrease in reported crimes is thought to be the increase in unpaid citizen volunteers who patrol their local communities (Ministry of Justice, 2014). According to the National Police Agency, the number of crime prevention volunteer organizations has continued to increase since statistics were first recorded in 2003, and at the end of 2014, there were some 48,000 such organizations with a total of approximately 2.8 million members (Fig. 3). These figures indicate that 1 in 38 adults in Japan is a crime prevention volunteer. Most crime prevention volunteer organizations consist of local residents and parents of elementary school children (National Police Agency, 2015) and are independent from the police unlike community-oriented policing in the United States, which requires an intimate partnership between citizens and the police (Smith et al., 1997). Among organizations comprised of local residents, neighborhood associations are the most common. Neighborhood associations are basic organizations that promote a sense of security and familiarity by cleaning and patrolling the local area (van Houwelingen, 2012).

Although the activities of crime prevention volunteer organizations are too various to describe, which activities are recommended can be deduced based on descriptions of crime prevention activities and of existing organizations on the National Police Agency's website. The volunteers patrol neighborhoods twice a day, especially when elementary school children are on their way home, and at night. About five to ten volunteers are typically involved in each patrol and the members rotate to share responsibility. Volunteers gather at a base such as a community center to review information on recent crimes and strange events in the area given by the local police, and then patrol their neighborhoods, saying hello to neighbors and picking up trash along their routes. In case they come across a crime or a suspicious person, they do not intervene, but make noise with whistles and portable buzzers to warn the people around them. To be easily recognized by potential offenders and neighbors, volunteers usually wear uniforms (e.g., caps, windbreakers, armbands or sashes with prominent colors and text such as "Crime Prevention Patrol") and carry a red flashlight at night.

Local authorities help subsidize the uniforms and volunteer insurance fees and also provide support by providing knowledge through training workshops and meetings. Particularly symbolic are street patrols by licensed volunteers in cars equipped with police-provided flashing blue lights referred to as "ao-pato" (literally, "blue patrol car"). This initiative became possible in December 2004 following increasing opportunities for voluntary crime prevention activities, and at the end of 2014 there were approximately 44,000 "ao-pato" operating in Japan. Sometimes the cars are borrowed from local authorities and sometimes they are the volunteers' own cars. After each patrol, volunteers make notes on what happened during their patrol for the next volunteers. Information on crimes is delivered not only to volunteers, but also to all residents through circular notices and notice boards.

The findings of previous studies in the United States that participation in crime prevention activities stemmed from individual involvement in community groups (Dubow and Podolefsky, 1982; Lavrakas and Herz, 1982), and another in South Korea that participation in community safety was an extension of commitment to the community (Choi and Lee, 2016), seem to also be true of Japan. It is assumed that communities with strong collective efficacy or social capital tend to have more active crime prevention activities (Zhao et al., 2002), resulting in a strong positive effect on residents' sense of security (Hino et al., 2016). However, crime prevention activities also provide an opportunity to build social capital (Herber, 2014). Thus, citizen volunteers have contributed to the mitigation of crime and the improvement of a sense of security in their communities since the sharp rise in crime rates around the year 2000. The increase in crime prevention volunteers is not merely a response to the increase in the numbers of crimes and sense of insecurity, but can also be perceived as an expression of self-directed awareness of resolving regional issues locally. Around the year 2000, residents became more motivated to participate in local activities and to deepen community bonds (Economic Planning Agency of Japan, 2000). One of the reasons for this was the Great Hanshin Earthquake that occurred in January 1995, when many people became active in the relief and recovery efforts to make up for the paralyzed government. It seems that the "let's do it ourselves" attitude among local residents has been gradually enhanced since then. This also coincided with the development of "Bouhan Machi-Zukuri," a concept of community building for crime prevention, which was first introduced in 1998 by a national government committee and has since spread (Hino and Schneider, 2013).

# 1.2. Challenges

However, volunteer crime prevention operations are facing some challenges. According to the 2006 Survey on Time Use and Leisure Activities by the Ministry of Internal Affairs and Communications, the majority of crime prevention volunteers were males in their late sixties (participation rate 10.8%) and females in their early forties (14.2%). The males were retirees who patrolled their neighborhoods and the females were mothers who took turns walking their children to and from elementary school. The same survey in 2011 showed that the age of the majority of male volunteers shifted to the early seventies (10.2%; Fig. 4), while that of females remained in the early forties (9.5%). The results showed that male members were the same individuals in both 2006 and 2011, while female members were succeeded by new but fewer volunteers of the same age range. This means that the majority of male volunteers are currently in their late seventies and many are experiencing decreased physical strength; there are also few successors. It is largely a reflection of

the fact that 26.7% (as of October 2015) of the Japanese population is aged 65 or older—markedly higher than that of other developed countries such as the United States (14.8%), United Kingdom (17.8%) and France (19.1%) (Cabinet Office, 2016). The decreased participation rate among female volunteers over time may be due to women's social progress, although in contrast to males, females are succeeded by the following generation. Crime prevention volunteers overall are on the edge of a sudden decrease.

From the viewpoint of volunteer groups, the main challenges are aging members (81%) and recruiting new members (65%) per a survey by the Tokyo Metropolitan Government in 2015 (Tokyo Metropolitan Government, 2015a); these percentages are higher than those in the same survey in 2010 (68% and 54%, respectively). When aged members withdraw, the remaining members are heavily burdened, which makes younger generations more reluctant to participate. This does not mean that there is a decrease in the number of people who consider crime prevention important. "Crime prevention" is the second highest (48.7%) item, after "Services for the elderly" (49.8%), of 27 items requested of the Tokyo Metropolitan Government (Tokyo Metropolitan Government, 2015b). Of course, the police are also involved with volunteer crime prevention groups. The National Police Agency has tried various recruitment programs to involve younger people in crime prevention activities; however, these have not been successful. In response to this situation, the author advocates the "Plus Bouhan" approach.

# 1.3. "Plus Bouhan"

"Plus Bouhan" (Plus Crime Prevention) is a crime prevention approach that adds aspects of crime prevention to daily activities in communities. Although it seems contradictory, crime prevention is not the primary aim of these activities. In many communities, traditional patrolling is considered the standard crime prevention activity, yet there is also a need for activities in which a diverse range of residents can participate with little burden. The aim of this study was to investigate whether two activities carried out by "Plus Bouhan" could diversify the range of crime prevention volunteers and to clarify the influence on volunteers' activities and attitudes. Important predictors of citizen participation in community crime prevention identified in previous studies, such as crime problems (Kang, 2015), risk level of neighborhoods (Pattavina et al., 2006), citizens' political orientation (Ren et al., 2006), and positive attitude toward the police (Randol and Gaffney, 2014), are not always easy to change. "Plus Bouhan" does not attempt to change the situation in a community or the citizens themselves, but rather focuses on changing activities.

### 2. Methods

Two activities based on the "Plus Bouhan" approach were investigated in this study. The first activity added a crime prevention aspect to a daily gardening project carried out in Anjo City, Aichi Prefecture. Residents watered flowerpots positioned in front of homes as elementary school students made their way to and from school. The second activity added a crime prevention aspect to walking and jogging, which are popular in the area, at times and places convenient to each volunteer to increase the number of eyes in communities in Tsukuba City, Ibaraki Prefecture. The effectiveness of these activities was evaluated using two questionnaires for each activity.

### 2.1. "Mimamori Flowerpot Project"

Sasamecho District, in the north of Anjo City, has approximately 2,000 households and a population of around 6,000. This district was an agricultural zone that prospered through the cultivation of pears, but the opening of a new bullet train station in 1988 and the surge in the number of houses due to a land readjustment project allowed for increasing amounts of crime such as burglary and theft from motor vehicles. An elementary school was opened locally in 2006, and parents and teachers tried to obtain the local community's cooperation in crime prevention.

Accordingly, stakeholders in the district decided to carry out the "Mimamori Flowerpot Project" to increase the number of eyes watching out for elementary school students by having residents water flowerpots positioned in front of houses and along the street as children make their way to and from school. The flowers (pansies) were provided by the local Agricultural and Forestry Senior High School and were planted in flowerpots by 88 local residents who gathered at the elementary school on November 27, 2009 (Fig. 5). Pansies were chosen because they are relatively long lived and can be maintained with simple trimming. Small labels (25 mm × 55 mm) were affixed inside the flowerpots showing the activity name along with the mascot of the Aichi Prefectural Police (Fig. 6). Some felt that these labels were too small, but they were designed to minimize psychological resistance from residents with little interest in crime prevention activities. Volunteers were encouraged to place the flowerpots in locations that offered unobstructed views of public spaces such as school zones and parks, and to take care of the flowers by watering them while children walk to and from school (Fig. 7).

### 2.2. "Jog Patrol"

Tsukuba City is located approximately 50 km from central Tokyo, 45 minutes by express train. It is known as Tsukuba Science City and was built in the 1970s to ease congestion in Tokyo and to create a suitable environment for high-level research and education by transferring national research and educational institutions from Tokyo. Surrounded by a rich green environment, there are 146 parks in the city connected with a 48-km pedestrian-only path. However, the parks and paths turned out to be places where females and children felt unsafe at nighttime, especially around 2000 when the number of recorded crimes suddenly increased.

Accordingly, the "Jog Patrol" activity started in September 2014 to increase the number of eyes on public parks and paths with the cooperation of citizens who usually jog/walk in such areas (Fig. 8). It regards volunteers as guardians, which is far different from other programs that use sports as a way of keeping young people away from antisocial behavior (Cameron and MacDougall, 2000). The volunteers wear bibs they receive at City Hall while they are jogging/walking (Fig. 9). The bib was designed by graduate students at the School of Art & Design, Tsukuba University to look "cool" so that younger generations would be more motivated to participate. The phrase "Miteruyo," ("We are watching over you") is printed on the front of the bib as a message not only to potential offenders, but also to children to give a "victimization perspective" to community crime prevention (Lewis and Salem, 1981). The mascot of Tsukuba City appears on the back of the bib along with "Jog Patrol" in large letters (Fig. 10). The advantage of the "Jog Patrol" over traditional patrols is that each volunteer can patrol at a time and place that is convenient for him/her because it is an

individual activity instead of a group activity. While traditional patrols display the solidarity of the neighborhood to potential offenders, the elusiveness of "Jog Patrol" is thought to be a deterrent.

#### 2.3. Questionnaire

The volunteers participating in each of the two activities were asked to complete questionnaires on their activities and attitudes. The "Mimamori Flowerpot Project" volunteers answered two questionnaires, immediately after making the flowerpots (in December 2009) and again 3 months later (in March 2010). The first questionnaire contained items about prior participation in other crime prevention activities and where and when they watered the flowerpots during the first 2 weeks of the project. The second questionnaire contained items on changes in their activities and attitudes using a five-point Likert-type scale with responses ranging from "agree" to "disagree." The questionnaires were hand delivered and the volunteers were asked to return the completed questionnaires to the neighborhood association office or the elementary school.

The "Jog Patrol" volunteers were divided into two groups, those living in central Tsukuba City and those living in all other areas of Tsukuba City. All volunteers provided their demographic attributes when they joined the activity. Volunteers living in central Tsukuba City were asked to complete the first questionnaire, which contained items on what time they patrolled during the 3 weeks in November 2014. The second questionnaire was given to all volunteers in March 2015 and contained items on changes in their activities and attitudes using a five-point Likert-type scale, as in the "Mimamori Flowerpot Project." All questionnaires were delivered and returned by post or by email according to the volunteers' preference.

#### 3. Results and discussion

### 3.1. "Mimamori Flowerpot Project"

Of the 88 local residents who participated in the project, 80 (response rate 91%) completed the first questionnaire and 72 (82%) completed the second. The results of the first questionnaire showed that many volunteers placed flowerpots in locations where they could watch over roads and that flowers were watered daily, mostly in the morning when children were on their way to school (Fig. 11). Most importantly, 54% had no prior experience participating in traditional patrols.

The second questionnaire showed that 67% of the respondents felt their "opportunities to greet and converse with local residents increased," while 76% felt their "sense of community" increased. Additionally, 63% of the respondents indicated that their "opportunities to greet and converse with children increased," while 76% indicated that their "awareness of children's safety" increased. It became clear that surveillance improved and that this activity also had a favorable influence on residents' awareness of safety and their community. Compared with typical crime prevention patrol activities, this activity places a very small burden on volunteers. In fact, 87% of respondents answered that they "enjoyed participating" and 79% "found participating in the "Mimamori Flowerpot Project" to be easier than participating in other crime prevention activities" (Table 1). In total, 140 volunteers participated in this project as of 3 months after first making the flowerpots.

### 3.2. "Jog Patrol"

As of February 7, 2015, 281 people had participated in the "Jog Patrol." Approximately one third (32%) of the volunteers were female and 39% of the volunteers were in their forties. Notably, 61% of the volunteers were office workers who were busy with work and child rearing and 73% had no prior experience participating in other crime prevention activities (Table 2). Therefore, the "Jog Patrol" diversified the range of crime prevention volunteers.

Two months after the launch of the "Jog Patrol," 56 of 116 (response rate 48%) volunteers living in central Tsukuba City completed the first questionnaire. Results showed that volunteers patrolled once every 2 days on average and 16% patrolled more than once a day, mostly when walking their dog. Regarding the timing of patrols, the peak in the morning was around 6:30 am, which is earlier than children go to school, while the peak in the afternoon was around 4:00 pm, which is said to be risky because children are targeted for crime around this time (Fig. 12). In March 2015, 136 of the 281 (response rate 48%) registered "Jog Patrol" volunteers as of February 7, 2015 completed the second questionnaire. The responses showed that volunteers were satisfied with the uniqueness of the "Jog Patrol;" 85% answered that they "enjoyed participating" and 89% "found participating in the "Jog Patrol" to be easier than participating in other crime prevention activities." As a result, half of the volunteers started to jog/walk more frequently. Regarding attitudes, no less than 97% answered that their "awareness of safety" increased and 43% even changed their jogging/walking route or schedule with crime prevention in mind. Increased communication with local residents (52%) and children (41%) helped to make 83% of volunteers feel an increase in their sense of community (Table 3). These results show the activity had a favorable influence on residents' awareness of safety and their community. In total, 580 volunteers had participated in the "Jog Patrol" as of 1.5 years after the opening ceremony.

### 3.3. Comparison of the two activities

Comparing the questionnaire results for the two activities, a higher percentage of "Mimamori Flowerpot Project" volunteers indicated increased opportunities to communicate with neighbors and children. On the other hand, a higher percentage of "Jog Patrol" volunteers had no prior experience participating in other crime prevention activities and found participating in this activity to be easier than participating in other crime prevention activities. In other words, the "Jog Patrol" is a type of activity that has greater potential to involve a wider range of citizens. In both activities, around 80% of volunteers felt an increase in their sense of community. These activities have the potential to re-create a feeling of community even with the fragmentation and alienation of contemporary urban life, which is consistent with the crimewatch program studied by Levine (1986). Sharp (1978) remarked that "solidary incentive" was most effective in mobilizing residents for coproduction. In the present study, increased communication among local residents in the "Mimamori Flowerpot Project" seemed to reinforce community solidarity. Comparatively, "Jog Patrol" volunteers had fewer opportunities to communicate with other volunteers because it is an individual activity by nature. To compensate for this, "Jog Patrol" volunteers recently began to gather and patrol together once in a while to strengthen their solidarity.

#### 4. Conclusion

The "Plus Bouhan" approach broadened the range of crime prevention activities and the fact that it is easy and enjoyable seemed to contribute to the increase in the number of crime prevention volunteers. Implementation of the two activities showed that residents who had previously been indifferent to crime prevention took part in activities based on "Plus Bouhan." In particular, many office workers in their thirties and forties, who were busy with work and had little spare time for traditional patrolling, took part in the "Jog Patrol." These results show the utility of "Plus Bouhan" in diversifying the range of crime prevention volunteers. In addition, most volunteers felt an increased sense of community and awareness of safety. Notably, "Mimamori Flowerpot Project" volunteers adjusted their schedule to water the flowers at the same that children go to school, and half of the "Jog Patrol" volunteers increased their frequency of jogging/walking. In this way, "Plus Bouhan" succeeded in changing activities and attitudes.

The author hopes that "Plus Bouhan" will be emulated by more communities all over Japan so that such volunteers can be maintained. In fact, these two activities have spread to other communities in Japan. For example, Adachi Ward in Tokyo introduced the "Streets with Flowers Project" in 2013, in which residents are given labels to insert in flowerpots like in the "Mimamori Flowerpot Project" when they buy seedlings at cooperating flower shops. Residents then place flowerpots with the labels along the roadside and water them when school children walk to and from school. In July 2015, Kiyosu City and Inazawa City in Aichi Prefecture jointly held a successful launching ceremony of the "Jog Patrol" at the historical Kiyosu Castle. Volunteers help to foster the social capital of their communities and encourage various actions that are not necessarily limited to crime prevention. In order to maintain or increase crime prevention volunteers, public authorities should support the launch of new activities based on the "Plus Bouhan" approach instead of directing resources only to existing groups that conduct traditional patrols.

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# **Figures**

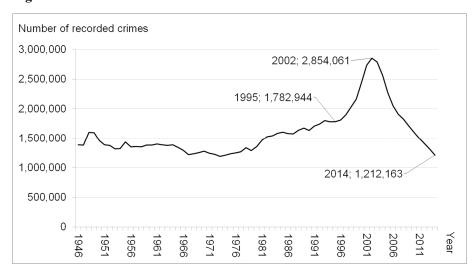


Fig. 1. Number of recorded crimes in Japan. (Source: Ministry of Justice, 2015)

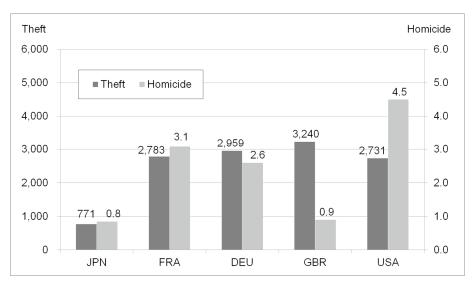


Fig. 2. Comparison of international crime rates. (Source: Ministry of Justice, 2015)

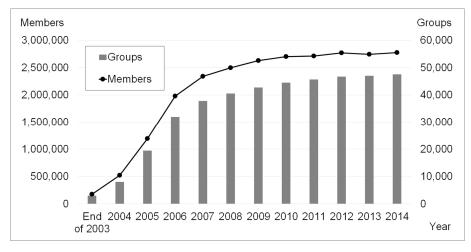


Fig. 3. Changes in the number of crime prevention volunteer organizations and their members. (Source: National Police Agency, 2015)

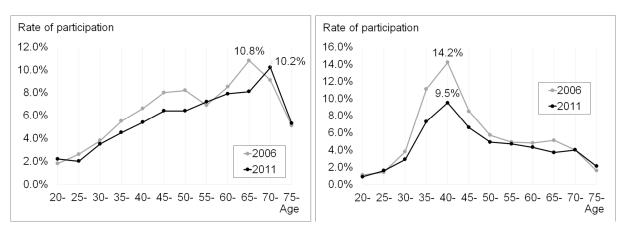


Fig. 4. Rate of participation in "activities for safety" among males (left) and females (right) in the general population. (Source: Ministry of Internal Affairs and Communications, 2011)



Fig. 5. Planting flowers.



Fig. 6. A flowerpot with label.



Fig. 7. Schoolchildren and a flowerpot placed along a roadside.



Fig. 8. Opening ceremony.



Fig. 9. Volunteers of the "Jog Patrol".



Fig. 10. Front (left) and back (right) of the bibs showing the mascot of Tsukuba City.

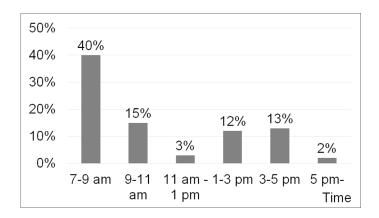


Fig. 11. Timing of participation in the "Mimamori Flowerpot Project."

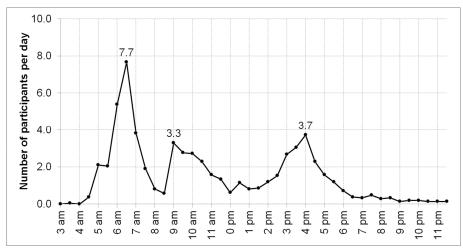


Fig. 12. Timing of participation in the "Jog Patrol."

Table 1. "Mimamori Flowerpot Project" volunteers' responses to questionnaire items on their activities and attitudes.

	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	No answer
Enjoyed participating	47%	40%	10%	1%	1%	0%
Easier than other activities	50%	29%	15%	3%	3%	0%
Communication with neighbors increased	28%	39%	21%	7%	4%	1%
Communication with children increased	31%	32%	24%	10%	3%	1%
Awareness of children's safety increased	47%	29%	14%	7%	0%	3%
Sense of community increased	38%	39%	14%	6%	1%	3%

Table 2. Demographic attributes of "Jog Patrol" volunteers.

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Sex	Male, 68%
	Female, 32%
Age (years)	20-29, 7%
	30-39, 18%
	40-49, 39%
	50-59, 17%
	60-69, 10%
	≥70, 8%
Occupation	Office worker, 61%
	Housewife, 11%
	Self-employed, 8%
	Unemployed 8%
	Part-time, 7%
	Student, 3%
	Other, 1%
Prior participation in other crime	Yes, 25%
prevention activities	No, 73%
Major daily activity	Jog, 52%
	Walk, 26%
	Walk pets, 6%
	Commute, 2%
	Other, 1%

Table 3. "Jog Patrol" volunteers' responses to questionnaire items on their activities and attitudes.

	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	No answer
Enjoyed participating	44%	41%	12%	3%	0%	0%
Easier than other activities	65%	24%	7%	2%	1%	1%
Communication with	15%	37%	26%	14%	8%	0%
neighbors increased						
Communication with	10%	31%	22%	18%	18%	1%
children increased						
Increased frequency of	21%	29%	35%	11%	4%	0%
jogging/walking						
Changed route or	9%	33%	25%	15%	16%	1%
schedule for crime						
prevention						
Awareness of safety	54%	43%	2%	1%	0%	0%
increased						
Sense of community	41%	42%	13%	2%	1%	0%
increased						

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The volunteers completed questionnaires and the results showed that residents who had previously been

indifferent to crime prevention activities took part in these activities. In particular, many office workers in

their thirties and forties took part in the second activity. These results show the utility of "Plus Bouhan" in

diversifying the range of crime prevention volunteers and changing their activity and attitude.

Keywords: Volunteer; Citizen Participation; Sense of security; Social capital; Aged society

#### 1. Introduction

From the end of World War II to 1980, the number of annual crimes reported in Japan ranged between 1.3 and 1.5 million. A common saying that "water and security are available for free" represented the low crime rate for many years. However, crime began to surge in 1995, the same year 6,434 people lost their lives in the Great Hanshin Earthquake and a sarin gas attack was carried out in Tokyo's subway system. Reported crimes reached a peak of 2.85 million in 2002, and in September 2003, the Ministerial Conference on Measures against Crimes, which comprises all cabinet members and is led by the Prime Minister, was established to formulate an "Action Plan for Realizing a Powerful Society against Crime."

As a result of various crime prevention measures, by 2012, the number of reported crimes had decreased to less than half the peak number reported in 2002 (Fig. 1). The number subsequently decreased to less than 1.2 million in 2015, the lowest since World War II. Japan has a lower crime rate (number of recorded crimes per 100,000 people) for homicide and theft than France, Germany, the United Kingdom and the United States. The theft rate in Japan is less than 30% that of the United States, while the homicide rate is less than 20% (Fig. 2). However, the nation's sense of security regarding crime remains low (Cabinet Office, 2012) and in addition to reducing crime, improving citizens' sense of security is thought to be important.

### 1.1. Crime prevention volunteers

One of the reasons for the decrease in reported crimes is thought to be the increase in unpaid citizen volunteers who patrol their local communities (Ministry of Justice, 2014). According to the National Police Agency, the number of crime prevention volunteer organizations has continued to increase since statistics were first recorded in 2003, and at the end of 2014, there were some 48,000 such organizations with a total of approximately 2.8 million members (Fig. 3). These figures indicate that 1 in 38 adults in Japan is a crime prevention volunteer. Most crime prevention volunteer organizations consist of local residents and parents of elementary school children (National Police Agency, 2015) and are independent from the police unlike community-oriented policing in the United States, which requires an intimate partnership between citizens and the police (Smith et al., 1997). Among organizations comprised of local residents, neighborhood associations are the most common. Neighborhood associations are basic organizations that promote a sense of security and familiarity by cleaning and patrolling the local area (van Houwelingen, 2012).

Although the activities of crime prevention volunteer organizations are too various to describe, which activities are recommended can be deduced based on descriptions of crime prevention activities and of existing organizations on the National Police Agency's website. The volunteers patrol neighborhoods twice a day, especially when elementary school children are on their way home, and at night. About five to ten volunteers are typically involved in each patrol and the members rotate to share responsibility. Volunteers gather at a base such as a community center to review information on recent crimes and strange events in the area given by the local police, and then patrol their neighborhoods, saying hello to neighbors and picking up trash along their routes. In case they come across a crime or a suspicious person, they do not intervene, but make noise with whistles and portable buzzers to warn the people around them. To be easily recognized by potential offenders and neighbors, volunteers usually wear uniforms (e.g., caps, windbreakers, armbands or sashes with prominent colors and text such as "Crime Prevention Patrol") and carry a red flashlight at night.

Local authorities help subsidize the uniforms and volunteer insurance fees and also provide support by providing knowledge through training workshops and meetings. Particularly symbolic are street patrols by licensed volunteers in cars equipped with police-provided flashing blue lights referred to as "ao-pato" (literally, "blue patrol car"). This initiative became possible in December 2004 following increasing opportunities for voluntary crime prevention activities, and at the end of 2014 there were approximately 44,000 "ao-pato" operating in Japan. Sometimes the cars are borrowed from local authorities and sometimes they are the volunteers' own cars. After each patrol, volunteers make notes on what happened during their patrol for the next volunteers. Information on crimes is delivered not only to volunteers, but also to all residents through circular notices and notice boards.

The findings of previous studies in the United States that participation in crime prevention activities stemmed from individual involvement in community groups (Dubow and Podolefsky, 1982; Lavrakas and Herz, 1982), and another in South Korea that participation in community safety was an extension of commitment to the community (Choi and Lee, 2016), seem to also be true of Japan. It is assumed that communities with strong collective efficacy or social capital tend to have more active crime prevention activities (Zhao et al., 2002), resulting in a strong positive effect on residents' sense of security (Hino et al., 2016). However, crime prevention activities also provide an opportunity to build social capital (Herber, 2014). Thus, citizen volunteers have contributed to the mitigation of crime and the improvement of a sense of security in their communities since the sharp rise in crime rates around the year 2000. The increase in crime prevention volunteers is not merely a response to the increase in the numbers of crimes and sense of insecurity, but can also be perceived as an expression of self-directed awareness of resolving regional issues locally. Around the year 2000, residents became more motivated to participate in local activities and to deepen community bonds (Economic Planning Agency of Japan, 2000). One of the reasons for this was the Great Hanshin Earthquake that occurred in January 1995, when many people became active in the relief and recovery efforts to make up for the paralyzed government. It seems that the "let's do it ourselves" attitude among local residents has been gradually enhanced since then. This also coincided with the development of "Bouhan Machi-Zukuri," a concept of community building for crime prevention, which was first introduced in 1998 by a national government committee and has since spread (Hino and Schneider, 2013).

# 1.2. Challenges

However, volunteer crime prevention operations are facing some challenges. According to the 2006 Survey on Time Use and Leisure Activities by the Ministry of Internal Affairs and Communications, the majority of crime prevention volunteers were males in their late sixties (participation rate 10.8%) and females in their early forties (14.2%). The males were retirees who patrolled their neighborhoods and the females were mothers who took turns walking their children to and from elementary school. The same survey in 2011 showed that the age of the majority of male volunteers shifted to the early seventies (10.2%; Fig. 4), while that of females remained in the early forties (9.5%). The results showed that male members were the same individuals in both 2006 and 2011, while female members were succeeded by new but fewer volunteers of the same age range. This means that the majority of male volunteers are currently in their late seventies and many are experiencing decreased physical strength; there are also few successors. It is largely a reflection of

the fact that 26.7% (as of October 2015) of the Japanese population is aged 65 or older—markedly higher than that of other developed countries such as the United States (14.8%), United Kingdom (17.8%) and France (19.1%) (Cabinet Office, 2016). The decreased participation rate among female volunteers over time may be due to women's social progress, although in contrast to males, females are succeeded by the following generation. Crime prevention volunteers overall are on the edge of a sudden decrease.

From the viewpoint of volunteer groups, the main challenges are aging members (81%) and recruiting new members (65%) per a survey by the Tokyo Metropolitan Government in 2015 (Tokyo Metropolitan Government, 2015a); these percentages are higher than those in the same survey in 2010 (68% and 54%, respectively). When aged members withdraw, the remaining members are heavily burdened, which makes younger generations more reluctant to participate. This does not mean that there is a decrease in the number of people who consider crime prevention important. "Crime prevention" is the second highest (48.7%) item, after "Services for the elderly" (49.8%), of 27 items requested of the Tokyo Metropolitan Government (Tokyo Metropolitan Government, 2015b). Of course, the police are also involved with volunteer crime prevention groups. The National Police Agency has tried various recruitment programs to involve younger people in crime prevention activities; however, these have not been successful. In response to this situation, the author advocates the "Plus Bouhan" approach.

# 1.3. "Plus Bouhan"

"Plus Bouhan" (Plus Crime Prevention) is a crime prevention approach that adds aspects of crime prevention to daily activities in communities. Although it seems contradictory, crime prevention is not the primary aim of these activities. In many communities, traditional patrolling is considered the standard crime prevention activity, yet there is also a need for activities in which a diverse range of residents can participate with little burden. The aim of this study was to investigate whether two activities carried out by "Plus Bouhan" could diversify the range of crime prevention volunteers and to clarify the influence on volunteers' activities and attitudes. Important predictors of citizen participation in community crime prevention identified in previous studies, such as crime problems (Kang, 2015), risk level of neighborhoods (Pattavina et al., 2006), citizens' political orientation (Ren et al., 2006), and positive attitude toward the police (Randol and Gaffney, 2014), are not always easy to change. "Plus Bouhan" does not attempt to change the situation in a community or the citizens themselves, but rather focuses on changing activities.

### 2. Methods

Two activities based on the "Plus Bouhan" approach were investigated in this study. The first activity added a crime prevention aspect to a daily gardening project carried out in Anjo City, Aichi Prefecture. Residents watered flowerpots positioned in front of homes as elementary school students made their way to and from school. The second activity added a crime prevention aspect to walking and jogging, which are popular in the area, at times and places convenient to each volunteer to increase the number of eyes in communities in Tsukuba City, Ibaraki Prefecture. The effectiveness of these activities was evaluated using two questionnaires for each activity.

### 2.1. "Mimamori Flowerpot Project"

Sasamecho District, in the north of Anjo City, has approximately 2,000 households and a population of around 6,000. This district was an agricultural zone that prospered through the cultivation of pears, but the opening of a new bullet train station in 1988 and the surge in the number of houses due to a land readjustment project allowed for increasing amounts of crime such as burglary and theft from motor vehicles. An elementary school was opened locally in 2006, and parents and teachers tried to obtain the local community's cooperation in crime prevention.

Accordingly, stakeholders in the district decided to carry out the "Mimamori Flowerpot Project" to increase the number of eyes watching out for elementary school students by having residents water flowerpots positioned in front of houses and along the street as children make their way to and from school. The flowers (pansies) were provided by the local Agricultural and Forestry Senior High School and were planted in flowerpots by 88 local residents who gathered at the elementary school on November 27, 2009 (Fig. 5). Pansies were chosen because they are relatively long lived and can be maintained with simple trimming. Small labels (25 mm × 55 mm) were affixed inside the flowerpots showing the activity name along with the mascot of the Aichi Prefectural Police (Fig. 6). Some felt that these labels were too small, but they were designed to minimize psychological resistance from residents with little interest in crime prevention activities. Volunteers were encouraged to place the flowerpots in locations that offered unobstructed views of public spaces such as school zones and parks, and to take care of the flowers by watering them while children walk to and from school (Fig. 7).

### 2.2. "Jog Patrol"

Tsukuba City is located approximately 50 km from central Tokyo, 45 minutes by express train. It is known as Tsukuba Science City and was built in the 1970s to ease congestion in Tokyo and to create a suitable environment for high-level research and education by transferring national research and educational institutions from Tokyo. Surrounded by a rich green environment, there are 146 parks in the city connected with a 48-km pedestrian-only path. However, the parks and paths turned out to be places where females and children felt unsafe at nighttime, especially around 2000 when the number of recorded crimes suddenly increased.

Accordingly, the "Jog Patrol" activity started in September 2014 to increase the number of eyes on public parks and paths with the cooperation of citizens who usually jog/walk in such areas (Fig. 8). It regards volunteers as guardians, which is far different from other programs that use sports as a way of keeping young people away from antisocial behavior (Cameron and MacDougall, 2000). The volunteers wear bibs they receive at City Hall while they are jogging/walking (Fig. 9). The bib was designed by graduate students at the School of Art & Design, Tsukuba University to look "cool" so that younger generations would be more motivated to participate. The phrase "Miteruyo," ("We are watching over you") is printed on the front of the bib as a message not only to potential offenders, but also to children to give a "victimization perspective" to community crime prevention (Lewis and Salem, 1981). The mascot of Tsukuba City appears on the back of the bib along with "Jog Patrol" in large letters (Fig. 10). The advantage of the "Jog Patrol" over traditional patrols is that each volunteer can patrol at a time and place that is convenient for him/her because it is an

individual activity instead of a group activity. While traditional patrols display the solidarity of the neighborhood to potential offenders, the elusiveness of "Jog Patrol" is thought to be a deterrent.

#### 2.3. Questionnaire

The volunteers participating in each of the two activities were asked to complete questionnaires on their activities and attitudes. The "Mimamori Flowerpot Project" volunteers answered two questionnaires, immediately after making the flowerpots (in December 2009) and again 3 months later (in March 2010). The first questionnaire contained items about prior participation in other crime prevention activities and where and when they watered the flowerpots during the first 2 weeks of the project. The second questionnaire contained items on changes in their activities and attitudes using a five-point Likert-type scale with responses ranging from "agree" to "disagree." The questionnaires were hand delivered and the volunteers were asked to return the completed questionnaires to the neighborhood association office or the elementary school.

The "Jog Patrol" volunteers were divided into two groups, those living in central Tsukuba City and those living in all other areas of Tsukuba City. All volunteers provided their demographic attributes when they joined the activity. Volunteers living in central Tsukuba City were asked to complete the first questionnaire, which contained items on what time they patrolled during the 3 weeks in November 2014. The second questionnaire was given to all volunteers in March 2015 and contained items on changes in their activities and attitudes using a five-point Likert-type scale, as in the "Mimamori Flowerpot Project." All questionnaires were delivered and returned by post or by email according to the volunteers' preference.

#### 3. Results and discussion

### 3.1. "Mimamori Flowerpot Project"

Of the 88 local residents who participated in the project, 80 (response rate 91%) completed the first questionnaire and 72 (82%) completed the second. The results of the first questionnaire showed that many volunteers placed flowerpots in locations where they could watch over roads and that flowers were watered daily, mostly in the morning when children were on their way to school (Fig. 11). Most importantly, 54% had no prior experience participating in traditional patrols.

The second questionnaire showed that 67% of the respondents felt their "opportunities to greet and converse with local residents increased," while 76% felt their "sense of community" increased. Additionally, 63% of the respondents indicated that their "opportunities to greet and converse with children increased," while 76% indicated that their "awareness of children's safety" increased. It became clear that surveillance improved and that this activity also had a favorable influence on residents' awareness of safety and their community. Compared with typical crime prevention patrol activities, this activity places a very small burden on volunteers. In fact, 87% of respondents answered that they "enjoyed participating" and 79% "found participating in the "Mimamori Flowerpot Project" to be easier than participating in other crime prevention activities" (Table 1). In total, 140 volunteers participated in this project as of 3 months after first making the flowerpots.

### 3.2. "Jog Patrol"

As of February 7, 2015, 281 people had participated in the "Jog Patrol." Approximately one third (32%) of the volunteers were female and 39% of the volunteers were in their forties. Notably, 61% of the volunteers were office workers who were busy with work and child rearing and 73% had no prior experience participating in other crime prevention activities (Table 2). Therefore, the "Jog Patrol" diversified the range of crime prevention volunteers.

Two months after the launch of the "Jog Patrol," 56 of 116 (response rate 48%) volunteers living in central Tsukuba City completed the first questionnaire. Results showed that volunteers patrolled once every 2 days on average and 16% patrolled more than once a day, mostly when walking their dog. Regarding the timing of patrols, the peak in the morning was around 6:30 am, which is earlier than children go to school, while the peak in the afternoon was around 4:00 pm, which is said to be risky because children are targeted for crime around this time (Fig. 12). In March 2015, 136 of the 281 (response rate 48%) registered "Jog Patrol" volunteers as of February 7, 2015 completed the second questionnaire. The responses showed that volunteers were satisfied with the uniqueness of the "Jog Patrol;" 85% answered that they "enjoyed participating" and 89% "found participating in the "Jog Patrol" to be easier than participating in other crime prevention activities." As a result, half of the volunteers started to jog/walk more frequently. Regarding attitudes, no less than 97% answered that their "awareness of safety" increased and 43% even changed their jogging/walking route or schedule with crime prevention in mind. Increased communication with local residents (52%) and children (41%) helped to make 83% of volunteers feel an increase in their sense of community (Table 3). These results show the activity had a favorable influence on residents' awareness of safety and their community. In total, 580 volunteers had participated in the "Jog Patrol" as of 1.5 years after the opening ceremony.

### 3.3. Comparison of the two activities

Comparing the questionnaire results for the two activities, a higher percentage of "Mimamori Flowerpot Project" volunteers indicated increased opportunities to communicate with neighbors and children. On the other hand, a higher percentage of "Jog Patrol" volunteers had no prior experience participating in other crime prevention activities and found participating in this activity to be easier than participating in other crime prevention activities. In other words, the "Jog Patrol" is a type of activity that has greater potential to involve a wider range of citizens. In both activities, around 80% of volunteers felt an increase in their sense of community. These activities have the potential to re-create a feeling of community even with the fragmentation and alienation of contemporary urban life, which is consistent with the crimewatch program studied by Levine (1986). Sharp (1978) remarked that "solidary incentive" was most effective in mobilizing residents for coproduction. In the present study, increased communication among local residents in the "Mimamori Flowerpot Project" seemed to reinforce community solidarity. Comparatively, "Jog Patrol" volunteers had fewer opportunities to communicate with other volunteers because it is an individual activity by nature. To compensate for this, "Jog Patrol" volunteers recently began to gather and patrol together once in a while to strengthen their solidarity.

#### 4. Conclusion

The "Plus Bouhan" approach broadened the range of crime prevention activities and the fact that it is easy and enjoyable seemed to contribute to the increase in the number of crime prevention volunteers. Implementation of the two activities showed that residents who had previously been indifferent to crime prevention took part in activities based on "Plus Bouhan." In particular, many office workers in their thirties and forties, who were busy with work and had little spare time for traditional patrolling, took part in the "Jog Patrol." These results show the utility of "Plus Bouhan" in diversifying the range of crime prevention volunteers. In addition, most volunteers felt an increased sense of community and awareness of safety. Notably, "Mimamori Flowerpot Project" volunteers adjusted their schedule to water the flowers at the same that children go to school, and half of the "Jog Patrol" volunteers increased their frequency of jogging/walking. In this way, "Plus Bouhan" succeeded in changing activities and attitudes.

The author hopes that "Plus Bouhan" will be emulated by more communities all over Japan so that such volunteers can be maintained. In fact, these two activities have spread to other communities in Japan. For example, Adachi Ward in Tokyo introduced the "Streets with Flowers Project" in 2013, in which residents are given labels to insert in flowerpots like in the "Mimamori Flowerpot Project" when they buy seedlings at cooperating flower shops. Residents then place flowerpots with the labels along the roadside and water them when school children walk to and from school. In July 2015, Kiyosu City and Inazawa City in Aichi Prefecture jointly held a successful launching ceremony of the "Jog Patrol" at the historical Kiyosu Castle. Volunteers help to foster the social capital of their communities and encourage various actions that are not necessarily limited to crime prevention. In order to maintain or increase crime prevention volunteers, public authorities should support the launch of new activities based on the "Plus Bouhan" approach instead of directing resources only to existing groups that conduct traditional patrols.

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# **Figures**

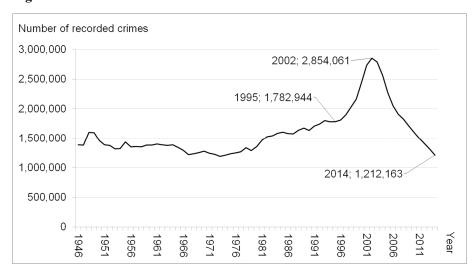


Fig. 1. Number of recorded crimes in Japan. (Source: Ministry of Justice, 2015)

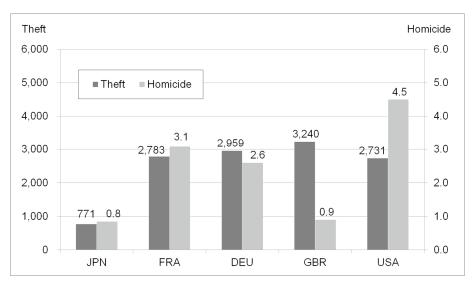


Fig. 2. Comparison of international crime rates. (Source: Ministry of Justice, 2015)

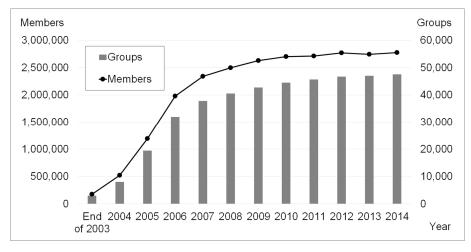


Fig. 3. Changes in the number of crime prevention volunteer organizations and their members. (Source: National Police Agency, 2015)

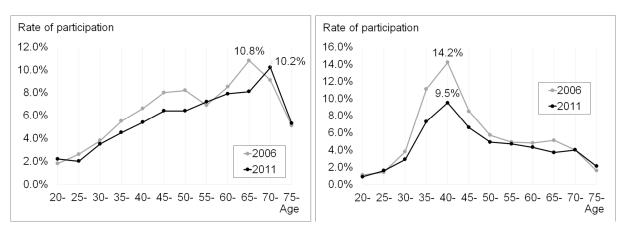


Fig. 4. Rate of participation in "activities for safety" among males (left) and females (right) in the general population. (Source: Ministry of Internal Affairs and Communications, 2011)



Fig. 5. Planting flowers.



Fig. 6. A flowerpot with label.



Fig. 7. Schoolchildren and a flowerpot placed along a roadside.



Fig. 8. Opening ceremony.



Fig. 9. Volunteers of the "Jog Patrol".



Fig. 10. Front (left) and back (right) of the bibs showing the mascot of Tsukuba City.

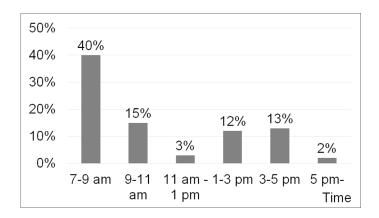


Fig. 11. Timing of participation in the "Mimamori Flowerpot Project."

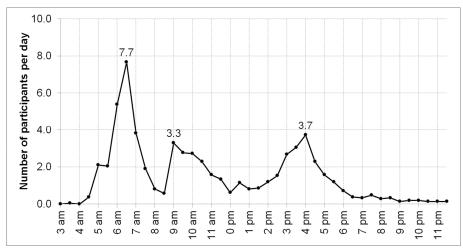


Fig. 12. Timing of participation in the "Jog Patrol."

Table 1. "Mimamori Flowerpot Project" volunteers' responses to questionnaire items on their activities and attitudes.

	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	No answer
Enjoyed participating	47%	40%	10%	1%	1%	0%
Easier than other activities	50%	29%	15%	3%	3%	0%
Communication with neighbors increased	28%	39%	21%	7%	4%	1%
Communication with children increased	31%	32%	24%	10%	3%	1%
Awareness of children's safety increased	47%	29%	14%	7%	0%	3%
Sense of community increased	38%	39%	14%	6%	1%	3%

Table 2. Demographic attributes of "Jog Patrol" volunteers.

<i>U</i> 1	
Sex	Male, 68%
	Female, 32%
Age (years)	20-29, 7%
	30-39, 18%
	40-49, 39%
	50-59, 17%
	60-69, 10%
	≥70, 8%
Occupation	Office worker, 61%
	Housewife, 11%
	Self-employed, 8%
	Unemployed 8%
	Part-time, 7%
	Student, 3%
	Other, 1%
Prior participation in other crime	Yes, 25%
prevention activities	No, 73%
Major daily activity	Jog, 52%
	Walk, 26%
	Walk pets, 6%
	Commute, 2%
	Other, 1%

Table 3. "Jog Patrol" volunteers' responses to questionnaire items on their activities and attitudes.

	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	No answer
Enjoyed participating	44%	41%	12%	3%	0%	0%
Easier than other activities	65%	24%	7%	2%	1%	1%
Communication with	15%	37%	26%	14%	8%	0%
neighbors increased						
Communication with	10%	31%	22%	18%	18%	1%
children increased						
Increased frequency of	21%	29%	35%	11%	4%	0%
jogging/walking						
Changed route or	9%	33%	25%	15%	16%	1%
schedule for crime						
prevention						
Awareness of safety	54%	43%	2%	1%	0%	0%
increased						
Sense of community	41%	42%	13%	2%	1%	0%
increased						