A Study on the Use of Parks in the Green Matrix System of Kohoku New Town, Japan
-Focusing on Parks Combined with Pedestrian Roads-

Masako Murota
Associate Professor, Department of Environmental and Information Studies, Musashi Institute of Technology, Japan

Abstract
This study focuses on the use of parks planned for the open space network system, called the "the Green Matrix System" in Kohoku New Town. The main purpose of the Green Matrix System is to connect parks, communal facilities, and apartment houses with pedestrian and bicycle roads. We investigated the actual condition of park use, with special focus on the combination of parks, and pedestrian and bicycle roads, and in particular their use by pre-school children. We determined the status of use through observational investigation and questionnaire surveys for two areas.

The results were, first, that active use was observed by different users for each time period, and that "the extended-pass-type activities" and compound use were observed as a feature of the combination of parks, and pedestrian roads. Second, we conclude that a combination of parks and pedestrian roads strengthens the function of intercommunication and recreation in pass-type activities, and encourages a variety of active uses. On the other hand, it raises safety aspects because of the large amount of bicycles and the strangers passing through the parks, and also because of the numerous blind spots arising because of the plentiful greenery in greenways. There is a possibility that these safety problems could diminish use of the GMS by young children.

Keywords: Green Matrix System; parks; use; combination space; pre-school children; pedestrian and bicycle roads

1. Introduction
It is important to combine city parks with green networks in order to promote use, preserve the existing natural environment, and strengthen the ability to prevent natural disasters. Regarding use, it is important to include communal facilities, such as schools, and some research has established that the ambient surrounding of parks affect their use\(^1\),\(^2\).

Kohoku New Town is a Newtown in the suburbs of Yokohama that was developed by a land readjustment project. Based on an open-space network plan called the Green Matrix System ("GMS"), it includes multiple parks. The GMS is a system centered around parks, that also links areas such as schools, pre-schools, shrines, factory and condominium sites, and other open spaces via pedestrian roads, such as greenways and walking trails that include bicycle paths. One goal of the GMS is to strengthen their use for such function as education and recreation.

This study aims to clarify the status of park use, and the advantages and disadvantages of the GMS, with special focus on parks combined with pedestrian and bicycle roads. First, this study attempted to understand park use by all generations, and then focused on use by pre-school children. The reason for the special focus on pre-school children is that the GMS aims to strengthen its educational function, including pre-school and elementary school children.

From previous research on the GMS of Kohoku New Town, I confirmed the existence of studies on the GMS planning theory, resident awareness surveys, and greenway use surveys. In addition to previous research on park use, there is one paper on the use of parks situated close to elementary schools, and another on the use of border space around a park. There is furthermore a study on children's play activity at water facilities, and a study on the use of children's playground. This study focuses particularly on parks that are combined with pedestrian roads and looks at their actual use status, with a spotlight on pre-school children.

2. Features of the Green Matrix System in Kohoku New Town
The area for the land readjustment project zone in Kohoku New Town is 1,341 hectares, and the population was 137,500, as of October 2007. The project plan was publicized in 1965 and land development commenced in 1974. Japan in the...
The 1960s was in the midst of a high-growth period and destruction of the natural environment following the advancement of urbanization was a concern. Against this social backdrop, preserving nature was a major goal of the development of Kohoku New Town. In creating the plan, first the size and shape of the conservation area was decided upon, centering on the forested area on the valley slope, and this conservation area was made the basis for the GMS.

This conservation area is composed of greenways and the preservation green space. The greenways are 10 - 40 meters wide (see Fig. 2.). They are classified as a type of city parks, which is public land. Conversely, preservation green space consists of sites that run alongside the greenways, such as condominiums, schools, and businesses, and includes both public and private land. The width of the area composed of a combination of greenways and the preservation green space measures up to 100 meters. Meanwhile, there is a type of greenway which has without preservation green space in some places. The extension distance of this conservation area is 15 km, the area of the greenway is 23.5 ha, and the area of the preservation green space is 35.1 ha. The combined total area for the greenways and preservation green space is 78.6 ha, which is 5.9% of the land readjustment project zone. The total square area for city parks is 157.2 ha (as of July 2007) in Kohoku New Town, which is 11.7% of the land readjustment project zone and 11.4 m$^2$ per person. That is 1.8 times larger per person compared to the average area per person in government ordinance designated cities (6.2 m$^2$, as of March 2007).

The GMS space is made up of a combination of natural spaces and urban spaces. The plan for urban spaces is based on a "Space-Use Matrix.". The "Space" is constructed of 1) city parks such as block parks, neighborhood parks, and district parks, 2) educational facilities such as pre-schools, elementary schools, and junior high schools, 3) district facilities such as gathering places, community centers, and sports facilities, 4) shrines and cemeteries, 5) various types of open spaces such as residential and company green areas, and connecting the above areas, 6) walking and bicycle paths, or greenways.

3. Method of Investigating the Use of Parks

3.1 Targeted Parks

Kohoku New Town has 1 comprehensive park, 8 district parks, 18 neighborhood parks, 97 block parks, and 5 greenways. These parks include both parks with the GMS feature of being connected to educational and community facilities or greenways, as stipulated above, and parks without this feature.

Table 1. District Parks in Kohoku Newtown

| Name       | Dimensions | Greenway | neighboring block park | neighboring pre-school | ADJ |
|------------|------------|----------|------------------------|------------------------|-----|
| Kamioike   | 87, 619    | Momo     | Edaminami              |                        | OK  |
| Kuzugaya   | 44, 901    |          |                        |                        | NO  |
| Sesseragi  | 55, 658    |          |                        |                        | NO  |
| Chigasaki  | 94, 828    | Tentoumishi |                        |                        | NO  |
| Tuda       | 36, 667    | Umenoki   |                        |                        | NO  |
| Higashikata| 39, 062    | Kurinomi  |                        |                        | NO  |
| Yamazaki   | 67, 343    | Hikarigoka | Kinohoshiki             |                        | OK  |
| Yamadafuji | 37, 414    | Kukurembo | Yokohamaryoumei        |                        | OK  |

In this study, target areas were selected on the conditions that they were 1) a district park linked together via greenways and paths, 2) near pre-schools, and 3) near block parks (within 300m in a straight line) (see Table 1.). This is because the areas that have these three conditions must show typical GMS features. We could have selected three group areas in this way, but we were allowed to conduct the questionnaire survey at only two pre-schools, Kinohoshiki and Edaminami. Therefore we surveyed two groups consisting of four target parks and two pre-schools, as shown in Tables 2 and 3.

3.2 Survey Method

The survey grasped the status of use in four target parks from 10:00 to 18:00 on days with good weather, including both weekdays and weekends, from mid-October to mid-November 2007. For analyzing park use, this study categorized users into groups of pre-school children, elementary school children, and other users (babies, high school students, and adults), and calculated the use for each time period, activity type, and space element. The target range of this survey included the entire park space for block parks, and for district parks the limited areas adjacent to greenways and open spaces where children tend to play, because the range of district parks is large. The square area of locations targeted for this survey was from 1000 to 3000 m$^2$.

This study conducted a questionnaire survey (October 2007) targeting the parents of children from...
Table 2. Targeted Parks and Pre-schools

| Classification | Name       | Distance from the district park (m) | Distance from the nearest station (m) | Feature of the site                                                                 | Surrounding landuse                        |
|----------------|------------|-------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------|
| Pre-school     | Kinnohoshi | 290                                 | 380                                   | *adjacent to Yamazaki                                                                | *single unit house area                    |
| District Park  | Yamazaki   | 280                                 |                                       | *adjacent to the pre-school and elementary school                                    | *apartment area                            |
|                |            |                                     |                                       | *linked with greenway                                                                | *farmland                                   |
| Block park     | Hikarigaoka| 0                                   | 210                                   | *linked with path                                                                    | *parking area                              |
| Pre-school     | Edaminami  | 300                                 | 1790                                  | *close to Momo and Kamoike                                                           | *single unit house area                    |
| District Park  | Kamoike    |                                       | 1200                                  | *adjacent to two elementary schools                                                  | *apartment area                            |
|                |            |                                     |                                       | *linked with greenway                                                                | *empty land                                |
| Block park     | Momo       | 280                                 | 1540                                  | *close to Kamoike and the pre-school                                                 |                                            |

* in a straight line

Table 3. The Features of Targeted Parks

| Classification | Name       | Park size (m²) | Dimensions of investigated area (m) | Special composition                                                                 | Facilities of investigated area                         |
|----------------|------------|----------------|-------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|
| First G        | Yamazaki   | 67,343         | 2,550                               | greenways, open spaces, tree areas, big pond, small ponds, fountain, swimming pool  | greenways, openspaces, small pond with fountain, two benches, water fountain |
|                |            |                |                                     | public ground, sport ground, bencies, public toilet, office of pool                  |                                                          |
|                | Hikarigaoka| 2,600          | 2,600                               | little open space, sports ground, steps, sand box, slide, play with log, rock, climbing, monkey bars, horizontal bar, 6 benches, one table, trees |                                                          |
| Second G       | Kamoike    | 87,619         | 1,350                               | greenways, open spaces, tree areas, big pond, small ponds, brook, lawn ground, bamboo, log, house, swings, benches, bower, public toilet | greenways, open spaces, small pond, five benches, swings |
|                | Momo       | 1,200          | 1,200                               | open space, sand box, slide, swings, jungle gym, seven benches, water fountain, trees, small monument |                                                          |

Legend
(Fig.5–8)

- Bench
- Sand box
- Play equipment
- Park entrance
- Greenway Intersection
- Open space
- Greenway
- Pond
- Swimming pool
two pre-schools and conducted interviews in the pre-schools. We distributed 450 questionnaires to the first group, Kinnohoshi Pre-School, and collected 173 replies (a response rate of 38.4%). We distributed 350 questionnaires to the second group, Edaminami Pre-School, and collected 57 replies (a response rate of 16.3%).

4. The Characteristics of Use for Each Park

4.1 The Characteristics of Users for Each Time Period

Table 4. indicates the fluctuations in use for each user group for each time period on weekdays and weekends. The number of users is greater for Hikarigaoka Park, Yamazaki Park, and Kamoike Park, which are connected via greenways and paths, than it is for Momo Park, which is not connected to the others. This difference exists because there are many adult users at the connected parks other than pre-school and elementary school children.

Looking at the difference in the number of users between weekdays and weekends, we can see that the number of users is higher on weekdays for all parks except Yamazaki Park. The number of pre-school children users for all parks is greater on weekdays than weekends. The number of other users is high on weekdays for Hikarigaoka and Momo, which are block parks, and high on the weekends for district parks. A trend of block parks having a higher number of pre-school children and elementary school children on weekdays, and district parks having a higher number of adults on the weekends is indicated.

Looking at the data organized by time period during the weekdays, user patterns can be seen, such as use from morning to around noon mainly by pre-school children and use mainly by elementary school children from 2:00 pm onward. In Hikarigaoka and Yamazaki Park, pre-school educational programs are held in the morning, and pre-school children and elementary school children use the parks at various other time periods. Conversely, there is no such apparent change in use for different time periods on weekends.

Regarding use by pre-school children, the data shows that use by pre-school children accounted for more than a quarter of all users in the cases of weekday use of Hikarigaoka, Momo, and Yamazaki Parks, and weekends use of Hikarigaoka Park. Use by pre-school children of Kamoike on weekdays and weekends, and weekend use of Yamazaki, accounted for only 7.5%, 7%, and 6%, respectively.

4.2 Characteristics of Use Activities for Different Space Elements

In order to investigate the activities conducted for each type of space element, this study categorized the activities conducted in parks into three categories. "pass-type" activities, "extended-pass-type" activities, and "stay-type" activities (see Table 5. and 6.). For block parks, this study split the category of "stay-type" into the categories of "play-equipment-type" activities and "free-type" activities. Focusing especially on the relationship with greenways, this study categorized district park spaces into 1) single greenways, 2) intersection points for multiple greenways, 3) open spaces running adjacent to greenways, and 4) open spaces in the back that do not directly adjoin greenways. This study classified other space elements according to the individual features of the target parks. The targeted block parks do not have greenway spaces or paths within their own areas, so their structures are similar to those of standard block parks, and thus we categorized the space elements into 1) play equipment, 2) sandboxes, and 3) open spaces, and 4) other space elements according to the individual features of the target parks.

Yamazaki Park and Kamoike Park show high amount of pass-type activities. In particular, Kamoike shows a large amount of bicycle riding, and I regard this fact as the reason why its use by pre-school children at Kamoike is minimal.

At Yamazaki and Kamoike Park, focusing on the combination of park and greenway, we can recognize three points. The first is that extended-pass-type activities, for example, 34 cases of non-seated chatting and 24 cases of resting in Yamazaki, are confirmed. The combination of park and greenway caused such extended-pass-type activities to occur easily, because the combined space is more open than only greenway space. The second point is that open spaces adjacent to greenways are used as places for walking dogs, non-seated chatting, and various kinds of play among children. Those varieties of use mean that this connection space is useful for playing and other lighthearted activities. The third point is that combined use of the greenway, greenway intersection, and park reflected, for example, in 112 cases of dog-walking, 48 cases of pre-school programs, and 42 cases of chasing in Yamazaki, are confirmed. This means that effective use was made of space, and that the safety aspects remain a concern.

Although, block parks also exhibit pass-type activities such as commuting and walking, these are extremely less frequent compared to district parks. Specifically, this type of activity is 35% for Hikarigaoka Park, which is connected paths, and 20% for Momo Park, which is not connected to a path. A great deal of extended-pass-type activities, such as non-seated chatting and resting, were observed. Non-seated chatting took place in the open spaces and sand area, which means that extended-pass-type activities are apparent in the space of park. Regarding stay-type use, pre-school program activities, playing by children on play equipment, and a wide variety of sports, such as ball games and chases, took place in the sand area, play equipment area, and open spaces, in addition,
Table 4. Fluctuations in Use for Each Use Group for Each Time Period

| Use Group | Weekday | Hourly Variation | Preschooler | Elementary Students | Others | Total |
|-----------|---------|-----------------|-------------|---------------------|--------|-------|
|           | 10:00~  | 11:00~          | 12:00~      | 13:00~              | 14:00~ | 15:00~ | 16:00~ | 17:00~ | Total |
| Preschooler | 55      | 40               | 22           | 10                  | 10     | 9      | 10     | 10     | 6      |
|            | 14      | 14               | 0            | 0                   | 0      | 0      | 0      | 0      | 100    |
| Elementary Students | 0   | 0               | 0            | 0                   | 10     | 19    | 10     | 10     | 90     |
| Others     | 67      | 50               | 45           | 38                  | 50     | 35    | 42     | 21     | 343    |
|            | 15      | 15               | 10           | 13                  | 16     | 17    | 15     | 16     | 100    |
| Total      | 128     | 109              | 67           | 50                  | 70     | 97    | 95     | 37     | 653    |
| Preschooler | 14      | 12               | 25           | 4                   | 7      | 10     | 7      | 10     | 650    |
|            | 17      | 16               | 23           | 4                   | 9      | 9      | 13     | 10     | 71     |
| Elementary Students | 0 | 0           | 0            | 0                   | 14     | 34    | 51     | 19     | 100    |
| Others     | 21      | 16               | 25           | 4                   | 4      | 14    | 11     | 2      | 97     |
|            | 18      | 21               | 18           | 6                   | 2      | 3     | 20     | 1      | 71     |
| Total      | 33      | 25               | 50           | 9                   | 20     | 56    | 72     | 22     | 233    |
| Preschooler | 2   | 5                | 18           | 18                  | 30     | 17    | 13     | 5      | 103    |
|            | 5       | 6                | 12           | 7                   | 13     | 6     | 4      | 13     | 49     |
| Elementary Students | 0 | 0           | 0            | 0                   | 0      | 0     | 0      | 0      | 0      |
| Others     | 18      | 42               | 38           | 43                  | 57     | 30    | 31     | 10     | 269    |
|            | 13      | 27               | 0            | 0                   | 0      | 0     | 0      | 0      | 40     |
| Total      | 33      | 74               | 57           | 64                  | 92     | 57    | 50     | 15     | 443    |
| Preschooler | 0   | 0                | 0            | 0                   | 0      | 0     | 0      | 0      | 0      |
| Elementary Students | 0 | 0           | 0            | 0                   | 0      | 0     | 0      | 0      | 0      |
| Others     | 30      | 62               | 88           | 53                  | 90     | 75    | 57     | 11     | 498    |
|            | 79      | 76               | 75           | 80                  | 81     | 115   | 83     | 51     | 100    |
| Other      | 0       | 47               | 2            | 6                   | 69     | 22    | 13     | 179    | 100    |
| Other      | 0       | 0                | 0            | 0                   | 0      | 0     | 0      | 0      | 0      |
| Other      | 0       | 14               | 1             | 2                   | 5      | 12    | 18     | 9      | 51     |
| Other      | 0       | 0                | 0            | 0                   | 0      | 0     | 0      | 0      | 0      |
| Table 5. Use Activities in District Parks

| Activities | Pass-type | Extended pass-type | Equipment-play-type | Free-activity-type | Total |
|------------|-----------|--------------------|---------------------|-------------------|-------|
| Play equipments | - | - | 2 | - | 52 72 95 |
| Sand box | - | - | - | - | - |
| Little open space | 291 41 | 13 27 | 20 | - | - |
| Sports ground | - | - | - | - | 30 43 24 |
| Bench | - | - | - | - | 2 |
| Table and Benches | - | - | 26 | - | - |
| Total | 291 41 | 13 27 | 41 44 | 79 0 52 72 95 | 59 19 30 45 31 43 |
| Play equipments | - | - | - | - | 39 43 |
| Sand box | - | - | 10 | 16 | - |
| Swing | - | - | - | - | - |
| Open space | 65 14 | 2 11 | 16 | - | - |
| Benches | - | - | - | - | - |
| Tree area | - | - | - | - | - |
| Total | 65 14 | 2 11 | 29 28 | 2 16 62 0 39 43 24 | 7 0 5 12 40 22 3 4 2 18 5 26 |

Table 6. Use Activities in Block Parks

| Activities | Pass-type | Extended pass-type | Stay-type | Other Types of Playing |
|------------|-----------|--------------------|-----------|-----------------------|
| Greenway | 520 152 | 112 191 72 | 4 | - |
| Greenway intersection | - | - | - | - |
| Open space adjoining greenway | - | - | - | - |
| Pond | - | - | - | - |
| Benches | - | - | - | - |
| Total | 520 152 | 112 191 72 | 34 24 | 12 18 48 5 42 56 0 0 0 15 1301 |
| Greenway | 835 62 | 56 308 34 | 4 | - |
| Greenway intersection | - | - | - | - |
| Open space adjoining greenway | - | - | - | - |
| Open space in th back | - | - | - | - |
| Tree area | - | - | - | - |
| Pond | - | - | - | - |
| Benches | - | - | - | - |
| Total | 835 62 | 56 308 34 | 6 16 | 8 18 0 3 15 0 15 32 8 15 1431 |

*P: personal use, E: education program of pre-school
seated chatting, card games, and picnics took place at
the benches. Overall stay-type activities were the main
type in block parks, indicating a roughly equal ratio of
play-equipment type activities and free-type activities.

Based on the use as explained above, we can
recognize some trends for the use of the combination
of park and pedestrian road. District parks exhibit the
extended-pass-type activities, and combination uses,
and additionally the open spaces adjacent to greenways
are useful for various other uses. On the other hand,
block parks show primarily stay-type use, and
extended-pass-type activities are apparent in the space
of the play area. Parks connected to greenways or
paths show a diverse range of uses, with three types of
activities, that is, pass-type activities, extended-pass-
type activities, and stay-type activities were confirmed
in both the greenways and open spaces.

5. Use and Use Related Problems for Pre-school
Children

Regarding use by pre-school children, a
questionnaire survey of the parents of pre-school
children was conducted in which we determined
use frequency, accompanying people, time period,
distance from house to park, and positive points and
problematic points of the parks. This is indicated in
Table 7.

The first and second group both showed a high
rate of park use, two to four times per week, or
35-36%. Adding in the categories of using a park
one time per week and five or more times per week,
the figures become 65% and 58% respectively.
Approximately 60% of the young children go to a
park at least once or more times per week. With regard
to accompanying people, mothers were the most
numerous, at approximately 80%. Next in line were
fathers and neighborhood children. The stay time of
1--2 hours is in the 40% range for each, with the stay
time of 30 minutes to one hour coming in at 36% and
44%, respectively. As the total, the stay time from 30
minutes to two hours is approximately 80% overall.
The distance from house to park was 100--500 meters
in nearly half the cases.

The first group was higher than the second group
in the following area: 1) higher use frequency, 2)
higher rate of fathers as accompanying person than
neighborhood children, 3) longer stay time, and 4)
longer distance from house to park. The children in
the first group are able to go to parks farther away
because they are accompanied by mothers and
fathers. Although weekend use in Momo Park drops
dramatically, use does not drop to the same extent in
Hikarigaoka (see Table 6.). This fact reflects the high
number of accompanying fathers.

Regarding the most appealing features, the first
group indicated the following, in order of preference,
1) an abundance of greenery and lush nature by
connecting greenways(32.1%), 2) space where children
can play freely(30.4%), and 3) an abundance of play
equipment(20.5%). The second group mainly answered
that 1) the park is close(78.9%), and also indicated 2)
there is space where children can play freely(19.3%).

Conversely, regarding problems with the parks, a
necessity for anti-crime measures was often cited,
with the most common reason being the numerous
blind spots caused by the prolific greenery. Another
reason was the bad attitude of high school students
walking along the greenways. Other problems cited
were the speed of bicycles, and a trash problem due
to the numerous passers-by. The necessity for insect
countermeasures due to the numerous trees, and the
need to increase the amount of lamps along greenways.

Although praise is given to greenways with bountiful
greenery set up in an integrated method and affording
ready access to natural environments, many problems,
such as crime due to the numerous blind spots this
natural environment provides. Other issues, such as the
danger of speeding bicycles and problems with trash
that originate from the large number of people passing
through the greenways are also cited.

At the pre-school interviews, we comprehended
the park use problems. If parks are used by large groups
for pre-school educational programs, people in the
neighborhood experience noise-level problems. In
addition, traffic safety is a big problem when pre-
schools implement educational programs.

6. Conclusion

This study surveyed the use of district parks and
block parks and obtained future tasks pertaining to
parks combined with pedestrian roads, including
bicycle passes, focusing in particular on use by pre-
school children.

Active use was observed for all four of the parks
targeted for this study. Four parks showed clear trends
towards pass-type use for district parks and stay-
type use for block parks. The number of pre-school
children users for all parks is greater on weekdays than
on weekends, and different user groups, such as pre-
school children and elementary school children, use

| Rank | Frequency | % Accompanying person | % Stay time | % Distance | % Problems** |
|------|-----------|-----------------------|-------------|------------|--------------|
| First | 2-4 times a week | 36.3 mother | 78% 1-2 hours | 43.2 100-500m | 43% security measures |
| Second | once a week | 25.1 father | 48% 30min to 1hour | 35.7 less than 100m | 18% speed of bicycles |
| Third | 1-2 times a month | 19.3 neighborhood children | 32.7 2 hours | 8.2 500-1000m | 15% littered with trash |

Table 7. Use and Use Related Problems
parks at the different time period. The number of pre-school children users is small in the parks that show a high number of pass-type activities, especially a large amount of bicycle riding. This trend can be attributed to the safety problem that are caused by heavy walking and biking traffic within parks.

Meanwhile, the characteristics of parks combined with greenways and paths were observed. Extended pass-type activity, including non-seated chatting, and resting were observed. Passersby can enjoy intercommunication and relaxation easily, which means that the pass-type activity can be changed to stay-type activity readily at the combination spaces.

The greenways and greenway intersections incorporate pass-type activities, extended pass-type activities, and stay-type activities, while the adjacent open spaces incorporate pass-type activities, extended-pass-type activities, and stay-type activities. Such compound uses were observed, and we recognize that the activities become diversified and the mixture of pass-type use and stay-type use encourages a variety of active uses. In addition, various activities by various age-groups are carried out in the same spaces.

Diversity of use has pros and cons. The good points are to strengthen the function of community formation, children's education, and recreation, by promoting intercommunication, active play, walking for a change, and so on. The cons are the safety problems, an important issue especially for young children, including pre-school children.

We conducted a questionnaire survey for pre-school children's parents, and we could see that most pre-school children go to parks with their parents, and more than half of pre-school children go to parks more than once a week.

The danger of crime due to numerous blind spots due to the plentiful greenery is generally cited as a problem. In addition, the danger arising due to speeding bicyclists through the parks is also cited. Conversely, the abundance of greenery and free open space garner high praise. The data indicating that many pre-school children use the park frequently with their parents confirms this. Most parents want their children to play in the parks, but children playing without parents presently pose a safety issue.

As explained above, there is the possibility that use of GMS by young children could diminish because of these safety problems.

Regarding tasks for the future, it is important to strengthen countermeasures in the area of safety for young children. We can balance greenery with a reduction of the crime rate, and take countermeasures against the large amount of bicyclists and the high number of strangers passing through the parks where children are playing.

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