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# The Yonmenkaigi System Method: An Implementation-Oriented Group Decision Support Approach

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## Abstract:

The Yonmenkaigi System Method (YSM) is presented as a participatory method to support group decision making. It is composed of four main steps: conducting a SWOT analysis, completing the Yonmenkaigi chart, debating, and presenting the group's action plan. The YSM is an implementation and collaboration-oriented approach that incorporates the synergistic process of mutual learning, decision making and capacity building. It fosters small and modest breakthrough and/or innovative strategy development. The YSM addresses the issues of resource management and mobilization as well as effective involvement and commitment by participants and provides a strategic communication platform for participants. A case study for developing a disaster reduction action plan, carried out with a local community organization in the City of Kyoto, Japan, is used to demonstrate the characteristics of the YSM.

**Keywords:** collaborative action planning, group decision making method, participatory method, The Yonmenkaigi System Method

## 1 Introduction

The Yonmenkaigi System Method (YSM) is a unique and useful group decision making method. This is a participatory workshop method which was originally developed in the

mid 1980's and practiced mainly for resident-led town activation project planning and management by Teratani and his community initiative team called CCPT. At that time, Teratani, one of the authors of this paper, was the leader of CCPT, which was formed in the mountainous township of Chizu, located in Tottori Prefecture,

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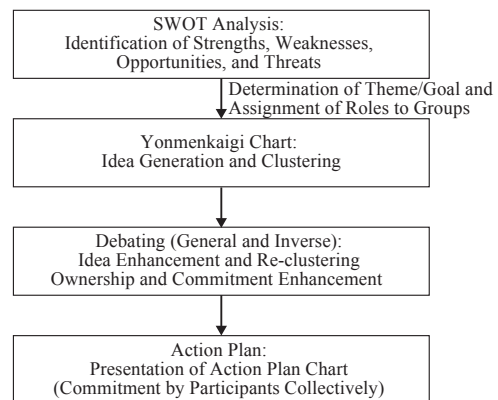
Japan (Okada and Teratani 2005). The major challenges that the CCPT was facing at that time included the ability to think strategically and the need to take calculated risks to implement a series of small-scale but breakthrough-causing projects to vitalize their rural town through the initiative of residents. This type of approach was not well accepted socially and politically in Japan at that time. Given that context, once a project was planned, the CCPT motto “believe in the value and impact of resident participation but never fail in implementation” was considered a “MUST” for them.

Since that time the approach has gradually improved from the viewpoint of refinement in the concept and group decision making methodology, with assistance by Okada, Na and Fang, the other authors of this paper. The YSM has also grown in both the number of study areas and subjects of application. For example, the method has been applied to both rural and urban areas in Japan as well as in Korea, China, Indonesia, etc. The subjects and themes vary from community vitalization and student-led university projects to natural disaster reduction projects. Another challenge just presented is to include cooperatives and private sector companies in Japan to test the method’s usability in both market development and business continuity planning and management.

Through these real-life applications together with continuous monitoring, assessment and development by researchers, and without losing its original backbone character as illustrated by the motto mentioned above, the YSM has been steadily generalized; irrespective of localities and specific details of application. It is thus evolving as a unique and vital method which seems to have a great deal of application potential yet to be explored. It is noted that the most appropriate level of application is primarily at the neighborhood community level or at a workshop or small meeting within or across orga-

nizations. Na et al. (2008, 2009a,b) presented applications of the YSM for disaster reduction action planning at the community level. The major objective of this paper is to introduce the YSM by focusing mainly on its unique characteristics as an implementation-oriented group decision making method.

Currently, other workshop methods used in Japan (Komura 2004; Ichiko et al. 2005; Kikkawa and Yamori 2006; Tsubokawa et al. 2008; Yamori 2009) emphasize more on the individual decision making process and investigate personal or individual capacities and resources to develop individual action plans, rather than focusing on community-based collaborative action planning (Na et al. 2009a). Group decision making is a missing area in the development and implementation of participatory workshop methods for disaster risk management. In comparison, the YSM not only investigates and identifies personal capacities and resources as well as ideas and views of individual participants, but it also furnishes a platform for working together by focusing on other participants’ views. In addition, the YSM emphasizes more on proactive disaster mitigation



**Fig. 1** Process of the Yonmenkaigi system method and prevention planning rather than on post-disaster rescue and relief activities.

## 2 Procedural Outline of the Yonmenkaigi System Method

A brief outline of the YSM procedure is discussed in this section. For details, the reader is referred to Na et al. (2009a). The goal of the YSM is to develop action plans for communities and organizations through workshops or small meetings. A typical YSM workshop/meeting has 8–16 participants from a community or organization and a facilitator. As shown in Fig. 1, the process of the YSM consists of four main steps: carrying out a SWOT analysis, completing the Yonmenkaigi chart, debating, and presenting the action plan chart (Na et al. 2009a,b). Carrying out a SWOT analysis is the first step of the process. The SWOT analysis provides the participants with an opportunity to share their ideas and views about the current state of the community, which leads to a holistic and detailed view of issues faced by the community and possible future actions. In the SWOT analysis, four types of color cards, corresponding to the four SWOT categories of Strengths, Weaknesses, Opportunities, and Threats, are used to express the participants' views.

Taking into account the current conditions of the community identified during the SWOT analysis, participants then determine the theme/goal of the workshop/meeting. Afterwards, the participants are divided into four groups. Each of the four groups is assigned one of the four roles: management, public relations (PR) and information, soft logistics, and hard logistics. Actions on these four general roles are normally required to accomplish a specific theme/goal. For a particular workshop/meeting, these four roles may be redefined as groups representing different stakeholders having their own concerns and interests.

Once the group/role assignment is complete, participants start to express their views

and suggest action components in accordance with their assigned role by utilizing color cards in a specially designed chart called the Yonmenkaigi chart, as shown in Fig. 2. By constructing a Yonmenkaigi chart, participants set out the vision and actions for the four groups/roles. The action components for each of the roles are grouped according to one of the time frames, for example: within 3 months, within 6 months, within 1 year, and beyond 1 year. Participants in a group discuss among themselves and plan the actions of their assigned role. The coordinated combination of the actions developed by the four roles/groups constitutes the implementable collaborative action plan for the community/organization.

To provide an effective platform for processing, developing, and combining different ideas or views, the next phase of the YSM is debating. Notably it is a debate about what is still missing or inconsistent if each role/group wants better collaboration. In this sense it may well be called a win-win debate. There are two types of (win-win) debating within the YSM: the first one is general debating, and the second is inverse debating, in that order. General debating involves two groups engaging in interactive argument while in inverse debating, the positions and roles of two groups facing each other

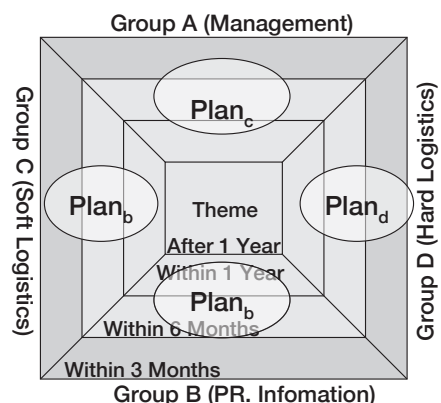


Fig. 2 Typical pattern of the Yonmenkaigi chart (Na et al. 2009a)

across the Yonmenkaigi chart are exchanged. The uniqueness and significance of the inverse debate is that it naturally motivates each group/role to become as imaginative as possible so as to challenge their own original action plan. This process effectively promotes the mutual ownership and commitment by all of the groups.

As mentioned earlier, action components reflecting ideas and views of participants are expressed by cards on the Yonmenkaigi chart. Na et al. (2009a) presented basic rules for the movement of cards: adding a new card, moving a card, deleting a card, renewal of a card, arrangement of cards, and collaboration of cards. For example, if an action component is no longer needed or desirable, the card representing this component is deleted from a Yonmenkaigi chart. Movements of cards are utilized by participants to express ideas and to exchange views, particularly during the debating process. If a component of an action plan is deemed to be obviously inferior by participants, the corresponding card is deleted.

After general and inverse debating, an implementable collaborative action plan is thus determined and well committed to by the participants using the Yonmenkaigi chart. The components of an action plan are classified by the time frame and the four roles. Finally, the participants make a presentation of the action plan using the specific roles and timelines of their plan.

### 3 Characterization of the Yonmenkaigi System Method as a Group Decision Support Approach

The procedure of the YSM is briefly summarized in Sect. 2. The basic characteristics of the YSM are presented in this section. The YSM:

1. is an implementation-oriented approach,

2. is a collaboration-oriented approach,
3. strategically incorporates the synergistic process of collaborative development characterized by mutual learning, decision making and capacity building,
4. is a method of small and modest breakthrough creation and/or innovative strategy development,
5. coherently addresses two fundamental themes, regardless of the specifics of the subject of application: (i) communicative and creative resource management and mobilization, and (ii) participants' effective involvement and commitment, and
6. serves as a strategic media to set up and formulate a communication platform for collaborative action development, primarily in both physical (hands-on) and epistemological forms among participants.

The aforementioned characteristics are elaborated in sequence below. Then, explanations are given to point out some unique characteristics of the YSM in comparison with other participatory methods, particularly as oriented to disaster risk management.

#### 3.1 Implementation-Oriented Approach

The YSM is intended to find its application in the real-world and to select the issue from the actual field in order to defy over-simplification of the issue for the sake of modeling. On the other hand, it assumes that both the issue and the cause of the workshop demand concentrated discussions, debates and deliberations as well as a relevant conclusion (a workable or viable solution) within a limited period of time. Very commonly, the problem to be addressed tends to be ill-formulated rather than well-formulated. The workshop has to start with a relatively

vague (abstract) vision coupled with a loosely shared diagnosis of the current state since participants at this stage lack common knowledge and information let alone the technology and competence that may be possessed by other participating members. As a result it is not wise for the entire group of participants to proceed straight to promoting effective courses of collaborative actions since initially they lack a significant part of their central vision and directives as well as essential knowledge, technology and competence for effecting selected actions. All of this naturally leads to substantiating the remaining points.

The YSM has a special procedure for debate among participants to address implementation-crucial deficits in thinking and action initially proposed by other groups from the entire team of participants. After each round of general debate for each possible combination of groups, inverse debate is similarly conducted. The purpose is to more objectively imagine and critically review primarily one's own thinking and action. That is, each round of debate is conducted by inverting groups across a square table covered with the Yonmenkaigi chart, as shown in Fig. 2. In this way, all participants are strongly stimulated to find missing links and fallacies, particularly due to a lack of objectivity. This is critical to implementation.

### 3.2 Collaboration-Oriented Approach

In contrast to cases of conflict and confrontation, there are many occasions where people can see the value of sharing the same communication platform and working out some collaborative courses of action together. This is precisely the basic condition that the YSM assumes. A typical case is a natural or man-made disaster or any other contingency situation where the first priority must be given to survivability or sustaining one's own life and then the lives of

one's community instead of confronting each other. With enough imagination, individuals can reasonably get together, work out "win-win collaborative actions" and put them into practice well in advance of the actual occurrence of such a contingency. Another example occurs when any community or organization is faced with an extremely difficult situation and people are concerned about taking on the challenge to break a stalemate. They may well agree to pull themselves up and work together in order to use creative thinking to come up with an innovative solution. It is quite natural that as stated in Sect. 1, the prototype of the YSM was first developed and used by a community of people in project planning and management for community vitalization where the challenge was to break a societal stalemate and to survive a rural decline.

### 3.3 Strategically Incorporating the Synergistic Process of Collaborative Development

The YSM can apply effectively to the kind of ill-formulated problems that are characterized by a very loose consent to collaborate but a lack of central vision and directives as well as essential knowledge, technology and competence for effecting selected actions. Characteristically this method incorporates the synergistic process of collaborative development for mutual learning, decision making and capacity building. It is noted that this type of complete process includes not only the decision component but also components of learning and capacity building (competence development). Learning and capacity building have not been well addressed in most existing group decision making methods, to the best of the authors' knowledge.

### 3.4 A Method of Small and Modest Breakthrough Creation and/or Innovative Strategy Development

The YSM is a special type of group decision making method which can apply well to collaborative action development for a small and modest breakthrough and/or to innovative strategy development in a community or organization. The key to this type of creative collaboration is to discover and actually implement needed linkages to synergistically bond respective participants and sub-groups. The process is assumed to evolve phase to phase from short and mid-term to long-term as is explicitly provided for in the Yonmenkaigi chart.

### 3.5 Coherently Addressing Two Fundamental Themes

Regardless of the specifics of the subject of application, the YSM coherently addresses the two fundamental themes of (i) communicative and creative resource management and mobilization, and (ii) participants' effective involvement and commitment. Here "resource" has a broad sense of the term, including "information, knowledge and technology," "human resources," "goods and commodities," and "money and other financial equivalents." Though resources may have limits and constraints in terms of quantity, what matters most is not the kind of limit or constraint but rather a mindset to creatively overcome and surmount "commonly taken-for-granted barriers or boundaries" such as jurisdictional divisions, specializations, etc. This method provides a set of special devices to activate communicative and creative management and mobilization. In parallel to this organization and mobilization of resources, the YSM strategically brings forth synergistic consolidation and empowerment of all participants, thus making them tightly united and committed to

what each considers one's own duty and to what requires collaborative action.

### 3.6 Serving as a Strategic Media to Set Up and Formulate a Communication Platform

Last but not least, the YSM has a vital function to serve as a strategic media to set up and formulate a communication platform among participants, particularly for collaborative action development. For example, the Yonmenkaigi chart effectively provides a common paper-form media as a physical element shared by participants. They scribble their thoughts and proposed actions on small cards, paste them on the square-shaped paper, change or exchange their positions, and add, delete or combine them. Moreover they tend to use "different human senses" such as "seeing," "listening" and "touching," and thus eventually own the entire process and the output/outcome of their conclusions. The chart also serves to formulate a common epistemological setting for participants. This epistemological work also largely depends on the scoping of the problem at stake. This has to be managed by both the participants and other support staff such as the facilitator, who is instrumental and by observers and advisers who may also take part in the meeting as complementary agents.

### 3.7 Uniqueness of the Yonmenkaigi System Method as Compared with Other Participatory Methods

Many participatory workshop methods (Komura 2004; Ichiko et al. 2005; Kikkawa and Yamori 2006; Tsubokawa et al. 2008; Yamori 2009) have already been developed and used. However the YSM is considered unique and distinct from most of other methods for the following reasons.

- (1) None of the other methods have systematically incorporated all of the six characteristics of the YSM, as mentioned above. Only the YSM incorporates all of them.
- (2) Most methods are developed mainly for characteristic 2, i.e., a collaboration-oriented approach. Some are developed for characteristic 6, i.e., a strategic media to set up and formulate a communication platform; but are not as explicitly oriented towards the purpose of collaborative action development.
- (3) If limited only to commonly used participatory methods for disaster risk management, the method of Disaster Imagination Game (DIG) by Komura (2004) is used primarily for post-disaster emergency drill methods, using a geographical base map and collaboratively identifying participants' roles and positioning their essential operational activities in the base map. It assumes a top-down command control structure to be workable for unknown parties who are invited to join in the drill as participants. Another commonly used method is "CROSSROAD Game" developed by Kikkawa and Yamori (2006) and Yamori (2009). This is intended to be used for unknown parties or individuals who will be challenged by a series of severe "dichotomous choice-making practices" in the event of a disaster. Both of the two methods are characterized by virtual image-training purposes; DIG is a more top-down and fixed scenario-based approach, and CROSSROAD Game is a more bottom-up and open-ended scenario approach. In addition to these methods there are some other methods (for example, Ichiko et al. 2005;

Tsubokawa et al. 2008) which may be considered somewhat in-between the above two methods. In any event these methods do not explicitly address how to strategically consider the above mentioned six YSM characteristics in an integral manner. Therefore they are very different from the YSM.

## 4 Demonstration of the Yonmenkaigi System Method as a Group Decision Support Approach

Since the 1995 Great Hanshin (Kobe) Earthquake, the disaster planning and management paradigm in Japan has shifted. For emergency and crisis management, the roles of local communities, or "community self-reliance" (*kyojo* in Japanese), and house-holds/individuals, or "self-reliance" (*ijjo*), are emphasized (Government of Japan 2008). Many local communities have established self-governed community associations for disaster reduction (*jishubosai-soshiki*). A *jishubosai-soshiki* is a volunteer group organized by residents in a local community for the purpose of organizing and implementing self-motivated disaster prevention activities in the community. In this section, a Yonmenkaigi system workshop held by a local *jishubosai-soshiki* in the City of Kyoto, Japan, is presented as a case study to demonstrate the characteristics of the YSM. The details about this Yonmenkaigi system workshop are reported by Na et al. (2009a) while this section uses the workshop to illustrate the YSM as a group decision support approach.

### 4.1 The Shuhachi Yonmenkaigi Workshop for Group Discussion

The Shuhachi community is an urban residential area near the Shuhachi elementary

school located in the center of the City of Kyoto. The Shuhachi community occupies an area of 1.055 square kilometers and, as of 2005, had a population of 10,939 residents. The community is composed of 52 smaller community units (chonai/chonai-kai), which are neighborhood associations. A chonai-kai constitutes the smallest collective self-governing unit in Japan (Nitschke 2003). A jishubosai-soshiki has been established in the Shuhachi community, consisting of a headquarters (Shuhachi-bosaikai) and one or two representative members from each chonai-kai. Based on chonai-kai rules, representatives from each chonai-kai are changed every year or two. The Shuhachi-bosaikai has established a partnership with the local fire station for organizing disaster reduction activities in the Shuhachi community (Na et al. 2009a).

The Shuhachi-bosaikai organized a Yonmenkaigi system workshop on January 26, 2008, to develop an action plan for the safety and security mapping of the Shuhachi community. Prior to the workshop, a questionnaire was designed and distributed to survey residents' understanding and awareness of the present situation in the local community. A total of 65 residents, including members of the Shuhachi-bosaikai and local fire station, completed the questionnaire during the period of December 22, 2007, to January 8, 2008. Eight members of the Shuhachi-bosaikai took part in the workshop on January 26, 2008, which lasted for three and a half hours. Na, the second author of this paper, served as the facilitator for the workshop. First, he discussed the rules and method of the workshop.

The results of the questionnaire were used to support the participants in carrying out the SWOT analysis of the Shuhachi community. Through the SWOT analysis, the participants discovered that the Shuhachi community did not have a hazard map or a local community housing map. Therefore, the participants deter-

mined that the theme/goal of the workshop was to produce security and safety maps of the Shuhachi community and selected a 1-year period as the available time frame for achieving the goal. From the eight participants, four groups of two each were formed to play the roles of management, PR&information, soft logistics, and hard logistics. The corresponding responsibilities of the four groups were management, communication, human resources, and physical resources; in order to achieve the overall workshop theme/goal of making security and safety maps of the community. The time scales of the action components considered by the Shuhachi Yonmenkaigi workshop are shown in Fig. 2 as: within 3 months, within 6 months, within 1 year, and beyond 1 year.

#### 4.2 Collaborative Action Development during Win-Win Debating

During the Shuhachi Yonmenkaigi workshop, the four groups of management, PR & information, soft logistics, and hard logistics generated 18, 18, 18, and 24 action component cards, respectively, as shown in Table 1, for a total of 78 action cards in the Yonmenkaigi chart before debating. After debating, the numbers of action component cards increased to 21, 27, 21, and 30, respectively, for a total of 99. In Table 1, the cards of collaboration are included in each of the collaborating groups. During the win-win debating stage, the multi-level knowledge development process of the debating practice is reflected through card movements. As shown in Table 1, a total of 21 action components were generated for the management group during the workshop. These 21 action components are detailed in Table 2.



**Table 1** Action plan components before and after debate (Na et al. 2009a)

	Management (M)	PR & information (I)	Soft logistics (S)	Hard logistics (H)
Before debate	18	18	18	24
Changes to action plan components after win-win debate				
Arrange	1	0	1	4
Add	2	3	0	3
Move	1	1	0	0
Collaborate	9	8	4	5
No change	8	15	16	18
Total	21	27	21	30

### 4.3 Characterization of the Yonmenkaigi System Method in the Shuhachi Workshop

The characterization of the YSM in the Shuhachi workshop is discussed here.

- (1) Implementation-oriented approach: After the SWOT analysis by participants, in the action plan period of within 1 year, three time frames were determined for carrying out the plan: within 3 months, within 6 months, and within 1 year. But while completing the Yonmenkaigi chart, participants changed the time frames to four by adding “after 1 year” as shown in Fig. 3. Participants recognized the need for changing the number of time frames in order to actually implement the plan.
- (2) Collaboration-oriented approach: According to the procedure of win-win debating as shown in Fig. 4, participants discussed the current situation and how to solve their problems. Through this process, participants were able to share information and knowledge and made an action plan to achieve the goal.

In the YSM, cards are used by participants to express and exchange action components of a plan. After completing all the debating processes, the groups

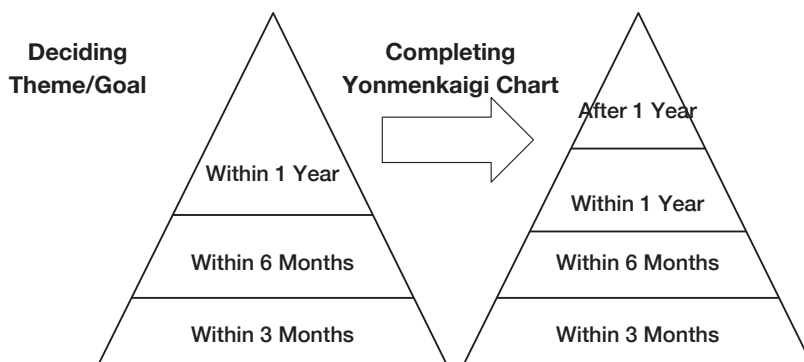
divide and share action plan components, as required. Participants work together and own the entire action plan in order to achieve their theme/goal together as showed in Fig. 4.

Action component numbers 4, 9, 10, and 14–19 in Table 2 are categorized as using a collaboration-oriented approach. These nine action components of the management group revealed during win-win debating required cooperative partnership between groups. Participants of the management group understood that current capacity and resources are not adequate to perform these action components by themselves only.

During the Shuhachi Yonmenkaigi workshop, the action component cards of “considering the contents of the proposed hazard map,” “marking available fire extinguishers in the Shuhachi community,” and “determining whether fund-raising campaigns are necessary” as well as six other cards were moved to the boundary areas between the management group and the other groups. It was noted by participants that the Shuhachi-bosaikai needs to work together with other groups to implement these action components because its own capacities are limited.

**Table 2** The action components of the management group (Shuhachi-bosaikai)

	<b>No Action components</b>	<b>Partnership between groups</b>
1	Thinking about the usefulness of a hazard map	M (Arranged from beyond 1 year)
2	Collecting cases showing importance of a hazard map	M (Added)
3	Opening the Shuhachi-bosaikai meetings	M
4	Creating education flip boards describing the need for a hazard map	M+I (Added)
5	Surveying members of chonai-kai about the new hazard map using a questionnaire	M
6	Deciding who will be the main organization to create the hazard map	M (Moved from I)
7	Asking representatives from chonai-kai for help	M
8	Considering dissenting opinions of creating a hazard map in the Shuhachi community	M
9	Reviewing hazard maps of other local communities	M+I
10	Considering the contents of the proposed hazardmap	M+I+S+H
11	Discussing the feasibility of making a hazard map of every chonai-kai	M
12	Determining the distribution area of the hazard map in the Shuhachi community	M
13	Recruiting new members for the Shuhachi-bosaikai	M
14	Meeting with Shuhachi schools about the hazard map	M+I
15	Requesting cooperation from the Shuhachi community	M+I
16	Determining whether fund-raising campaigns are necessary	M+I
17	Marking available fire extinguishers in the Shuhachi community	M+H
18	Recruiting volunteers for creating the hazard map in the Shuhachi community	M+I
19	Opening the Shuhachi-bosaikai and chonai-kai meetings	M+I
20	Checking the contents of the hazard map before finalizing	M
21	Distributing the hazard map in the Shuhachi community	M



**Fig. 3** Change to time frames during completion of the Yonmenkaigi chart

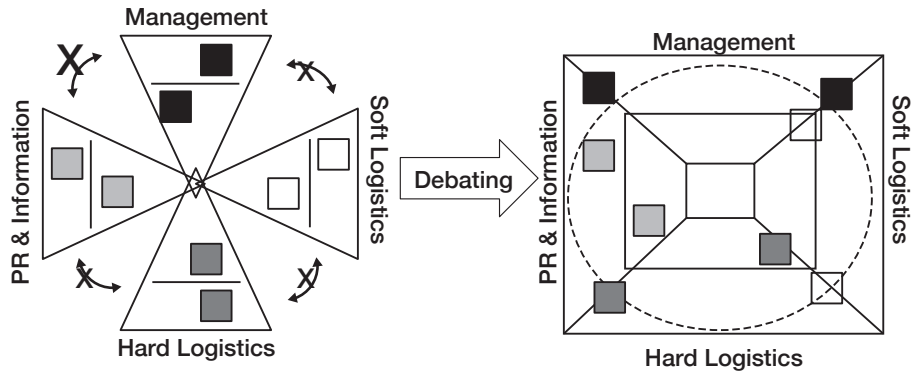


Fig. 4 Win-win debating for developing the collaborative action plan

(3) Strategically incorporating synergistic processes of collaborative development: Through the process of win-win debating to develop a collaborative action plan, some examples of the synergistic process of collaborative development for mutual learning, decision making and capacity building (Na et al. 2009a) are:

- It was first collaboratively decided that a hazard map of the Shuhachi community is needed.
- The importance of producing a hazard map should be explained to the community and the assistance by representatives from the chonai-kai in making the hazard map should be sought.
- The Shuhachi-bosaikai is conscious that it does not have sufficient resources to create a hazard map by itself.
- Collaborative actions by the Shuhachi-bosaikai and other community organizations are required to carry out this project of making a hazard map together at the community level.

Through this process, the Shuhachi-bosaikai learned the need for collabora-

tive action for developing and implementing community-based disaster reduction activities.

- (4) A method of small and modest breakthrough creation and/or innovative strategy development: Participants discussed the priority order of the action components to improve a strategic action plan from short and mid-term to long term as shown in Figs. 4 and 5. The total number of action components in the management group increased from 18 to 21 after the debating processes to synergistically bond participants and groups.
- (5) Coherently addressing two fundamental themes: Participants can share and use their resources to perform tasks in order to achieve the goal in the Shuhachi community through management and mobilization of their action components. For example, to carry out the action components of “surveying members of chonai-kai about the new hazard map using a questionnaire” and “marking available fire extinguishers in the Shuhachi community,” the human resources required are moved to the Shuhachi-bosaikai as the management group, through group discus-

sions during debating. During the Shuhachi Yonmenkaigi workshop, the group playing the role of management added a new action component card of “collecting cases showing importance of a hazard map.” It was noted that other members requested that the Shuhachi-bosaikai should be the managing group to collect cases so that other members can share their resources. A card of “deciding who will be the main organization to create the hazard map” was moved to the group playing the role of management from the group of PR & information. The Shuhachi-bosaikai accepted a request from other groups that it should be the main organization to carry out the task of “creating the hazard map in the Shuhachi community.”

- (6) Serving as a strategic media to set up and formulate a communication platform for collaborative action development: A simple questionnaire survey of the participants after the workshop has revealed the following:
  - (i) Participants can discover the possibility of creative activity for disaster reduction by experiencing new points of view through the win-win debating

processes in the Yonmenkaigi system, and can experience the group decision making processes by using “different senses” such as seeing, listening and touching, and eventually owning the entire process to realize action plans; (ii) Participants of a Yonmenkaigi system workshop in a local community effectively understand and practice collaborative activity which is properly tailored to social and cultural specifics of the local community; and (iii). They also understand the extension and realization of the adaptation of knowledge on an individual level, and then recognize the necessity of co-operation for social action by their organization using the Yonmenkaigi system.

Members of the Self-governed Community Association for Disaster Reduction (Jishubosai-soshiki) in the Shuhachi community developed an implementable collaborative action plan for their community through the collaborative-debating process of the YSM. Collaborative activities involving residents and their community are an important and necessary element to improving disaster prevention activities in a local community. Moreover, the YSM furnishes a useful tool for enhancing local communities’

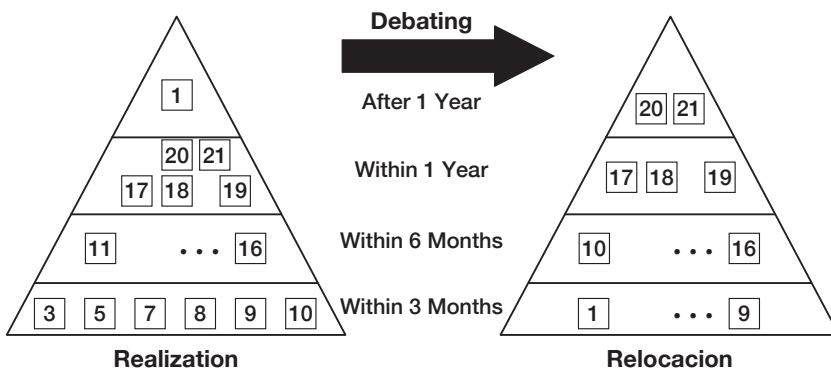


Fig. 5 Innovative strategy development in the management group after debating

disaster coping capacity and preparedness.

After the Shuhachi Yonmenkaigi workshop, social action of the Shuhachi-bosaikai has changed. They were contacted to conduct a town-watching event for disaster mitigation and prevention in the local community for Indonesian officials of disaster prevention in May 2008. The Shuhachi-bosaikai opened its meetings and requested other organizations in the community to collaboratively carry out the town-watching event based on the action plan chart developed in the Shuhachi Yonmenkaigi workshop. Through the Yonmenkaigi system, the Shuhachi-bosaikai recognized the need for collaborative actions. As a result, the town-watching event was implemented by the collaborative activities of the Shuhachi-bosaikai, the local fire station, Shuhachi Elementary School, and the Shuhachi community.

## 5 Conclusion

The YSM has been presented as a unique and vital method to support a very practical type of group decision making. The method has been characterized as implementation and collaboration-oriented. It has also been shown that the method effectively incorporates the synergistic process of collaborative development for mutual learning and capacity building in addition to decision making.

The YSM has been found to serve as a method of small and modest breakthrough creation and/or innovative strategy development. It also coherently addresses two fundamental themes regardless of the specifics of the subject of application: (i) communicative and creative resource management and mobilization, and (ii) participants' effective involvement and commitment. It has been shown to serve as a strategic media to set up and formulate a communication platform in both physical and epistemological

forms among participants. Illustrations have been made to demonstrate how the YSM operates in actual case study contexts.

One important note to add is that, as is common with any other participatory workshop method, this kind of method needs to be consolidated by using the accumulated knowledge of how to facilitate the procedures and actual operation. Therefore, a facilitator's role and ability is significant in successfully implementing a YSM workshop. Facilitation also requires special expertise and knowledge. How to formulate and transfer this expertise and knowledge is important research to be undertaken in the near future. Moreover, it is worth mentioning that initiative needs to be taken by some participants or sub-groups to provide a driving force for operating the YSM. Otherwise due to the participatory nature a horizontal structure tends to miss a driving force that needs to be generated from within. This is another type of dynamic characteristic which may require a different research focus.

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