

THE ROLE OF COMMUNITY-BASED ORGANIZATIONS FOR URBAN RIVER RESTORATION PROJECTS IN ZENPUKUJI RIVER, TOKYO, JAPAN

KYOHEI TAKIZAWA (Kyushu University), SATOQUO SEINO(Kyushu University), TAKEHIRO WATANABE(Sophia University)

1. RESEARCH GOALS AND BACKGROUND

1.1 Background

In 2006, Japan's Ministry of Land, Infrastructure, Transport and Tourism (henceforth MLIT) announced "Nature-Oriented River Works" and guidelines for river conservation and construction. These policies called for the need to conserve the natural environment, maintain the aesthetic beauty of the river landscape, and form diverse partnerships (MLIT 2006a, 2006b). These policies were based on the understanding that stakeholder partnerships would result in better design because such cooperation would enable the identification of community needs and the profiling of the local ecosystem. Maintenance also benefits from community-based monitoring and contribute to achieving urban biodiversity goals.

1.2 Research Goals

This research seeks to clarify the planning process of an urban river revitalization project, with a focus on a civic group that, as a stakeholder, engendered government-community partnership. This author, as member of this group, participated in the planning phase of a riverworks project called Minna no Yume Suiro jigyo (henceforth "Our Dream Waterway Project"). A waterway revitalization project in Zenpukuji Park and located in Tokyo's Sugunami Ward, this undertaking was initiated not by the government but by a proposal from the community. After the project was green lighted, community groups were involved in the preliminary planning, landscape design, and construction of the waterway, as well as the establishment of a post-construction participatory management structure.

In this process, Zenpukujigawa Wo Satogawa Ni Kaeru Kai (henceforth "Zenpuku Frog") has been fostering relationships with the local community, facilitated the development of a watershed-wide community vision, and participated in the planning and designing of this waterway.

This research seeks to identify the role that this civic group played in creating a vision for revitalizing this urban river and promoting the Our Dream Waterway Project for the past five years. To analyze this design management process, the paper chronicles the blueprints and documents used in the planning sessions to identify the issues raised by participants.

2. ZENPUKUJI RIVER, COMMUNITY, AND ZENPUKU FROG

2.1 Zenpukuji River and its Challenges

Zenpukuji River is a 10.5 km long urban river that flows in the Sugunami Ward of Tokyo Metropolitan Area. Challenges: channelization and concrete banks, flash floods, pollution due to combined sewage and surface run-off inflow.

2.2 History of the Waterway in Zenpukuji Park

Zenpukuji Pond was once surrounded by wetlands and rice paddies, but is now an urban park. A waterway, managed by Sugunami Ward, was the site of an initiative to introduce fireflies by local residents in the 1980s.

2.3 logi Elementary School and a River-Centered Curriculum

logi Elementary School, near the park, has the river flow through its campus. Since 2009, this school, with the help of NPO Sugunami Kankyō Nettowāku and logimaru School Support Group, began river cleanup and river-related educational program, water quality monitoring and biological surveys. These initiatives resulted in a multi-year curriculum.

2.4 Zenpuku Frog

Zenpuku Frog, a local group seeking to restore Zenpukuji River, began in 2011. Zenpuku Frog's involvement with logi Elementary School began in 2012 with its invitation of a hydrologist to teach a class. The group also supported the schoolchildren when they submitted drawings of their "dream waterway" to Sugunami Ward Mayor. As a result, the ward announced the start of "Our Dream Waterway Project" as a collaborative effort between the schoolchildren, community, and ward government.

5. DISCUSSION & CONCLUSION

5.1 The role of Zenpuku Frog in the process of design and implementation

The process can be divided into four phases: 1) awareness raising, 2) project initialization, 3) design planning, and 3) establishing maintenance structure. The following outlines Zenpuku Frog's contributions.

- 5.1.1 Creating citizen science and learning opportunities
- 5.1.2 Forming an open, multi-generational network
- 5.1.3 Offering a watershed-wide vision
- 5.1.4 Sharing a framework
- 5.1.5 Communicating to diverse citizens
- 5.1.6 Expanding arenas for discussion
- 5.1.7 Building intergovernmental consensus
- 5.1.8 Submitting a revision plan that bridged the preliminary design and the finalized plan
- 5.1.9 Designing a community-based platform
- 5.1.10 Promoting participatory construction

3. "Our Dream Waterway Project": Participatory Design Workshop and Zenpuku Frog

3.1 Zenpuku Frog's Activities before the Participatory Design Workshop

A series of workshops by Zenpuku Frog brought together community stakeholders, local residents, environmental groups, and the schoolchildren to hold discussions and share the principles that would later guide the project.

3.2 The Participatory Design Workshop

Zenpuku Frog held meetings, lectures, and expert consultation to supplement and support the design workshops held by Sugunami Ward.

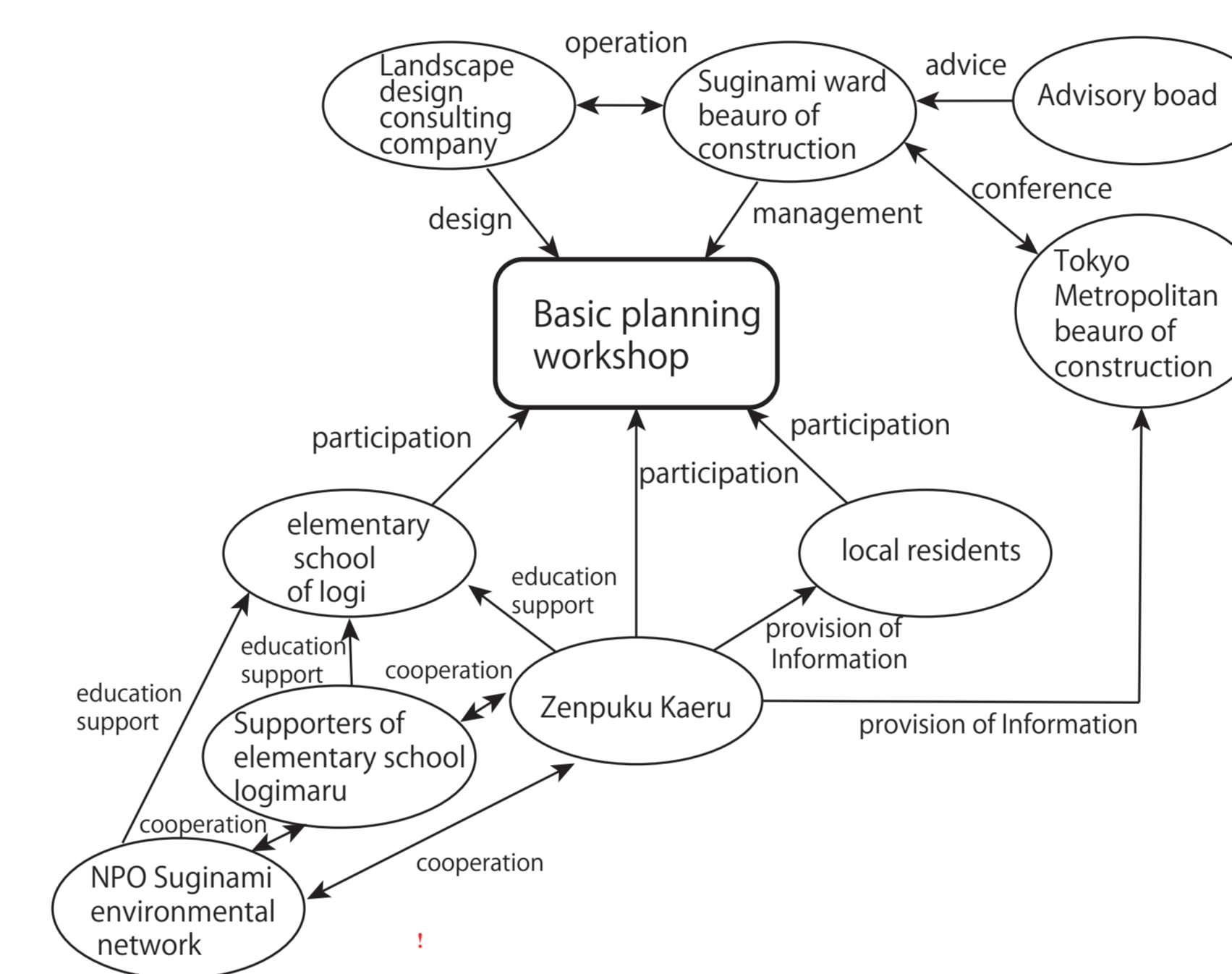


Figure 1. The Organization of Design Workshop

3.3 Evaluation of the Design Proposal and the Submission of an Alternative Proposal

Zenpuku Frog, upon receiving the plans, identified problems, proposed solutions, created a revised plan, and submitted it to government officials.

Subjects	Classification	Activities
Suginami ward	Workshop	workshop #01 10/17 • current state of the place • students presentation workshop #02 10/31 • field survey • water quality • plants and fishes workshop #03 11/15 • space planning workshop #04 12/13 • space planning • management and operation • constitution watching channel party Resident briefing 3/26 • announcement of space planning
	Advisor board	advisory board #01 12/5 • advice for space planning advisory board #02 1/14 • advice for space planning
	Conference	conference with Tokyo Metropolis 12 12/5 • Site boundary • Water source conference with Kaeru 5/9 • channel desing • citizen construction
Zenpuku kaeru	Outer activities	Kaeru action #13 meet up headwater 7/26 • clean up channel • enlightenment of project • revitalization of river • stakeholder analysis Kaeru action #14 9/1 • clean up river • bacical point of project • space planning • stakeholder discussion Kaeru session 10/23 • origin of zenpuku river Kaeru session 11/12 • environmental goal • discharge rate • source of water Kaeru session 12/27 • channel design • environmental goal of zenpuku river
	Inner activities	Kaeru meeting 9/27 • rain garden • revitalization of Wasabori park Kaeru meeting 10/23 • sharing of workshop • sharing of rain society study Kaeru meeting 11/27 • environmental goal • seed bank • source of water • revitalization of Wasabori park Kaeru meeting 12/11 • discussion with citizen of Higawa river • action planning of Zenpuku river Kaeru meeting 1/7 • design planning of channel Kaeru field survey 3/12,13 • Hii river • Kamisaigo river
	Local activities	Zenpukuji discovery 9/27 • enlightenment of CSO problem • Public involvement of project school environmental education 9/26 • zenpukuji river and paddy field school environmental education 10/9 • fieldwork of Nogawa river waterfowl symposium 1/30 • students presentation Zenpukuji river forum #17 (rain and river) 3/6 • Students presentation • Kaeru presentation • channel planning
main issue		basic points • stakeholder environmental goal • flow rate • site zoning channel design • space design

Figure 2. The Timeline of Zenpuku Frog's Activities and Design Workshop.

4. FROM A PREPARATORY GROUP TO COMMUNITY-BASED GOVERNANCE

4.1 Discussions Concerning Post-Construction Waterway Maintenance

In 2016, concurrent with the drafting of a more detailed landscape plan, the ward held a meeting to discuss the future structure for maintaining the waterway.

4.2 A Preparatory Group to the Formation of "Osonoigawa Kappa no Kai"

In 2017, a "Dream Waterway Preparatory Meeting" was held with the purpose of creating a community group for waterway maintenance, with discussions concerning a) organizational structure such as group charter, agreement with ward, secretariat and chairperson, and duties, and b) activities such as participating in the construction, user rules, programs, and public communication.

These meetings were held monthly, until the formation of the Osonoi Kappa no Kai, which was officially founded with the signing of the agreement with the ward government in September. Schoolchildren took part in planting native plants during the construction phase in 2018, and in July the waterway's opening ceremony was held, with the ward mayor, various stakeholders, and children, including logi graduates who have since become university students, attended.

5.2 The Cycle of Coordination between Citizen Group, Citizens, and Government

This citizen group, through its open network, was able to communicate its broader vision of river revitalization to a multi-generational public. Through citizen science and educational opportunities, it staged small but significant interventions to communicate this vision to the ward government. The ward, in turn, decided to greenlight this project and held a workshop that ensured a broader participation in the planning, construction, and maintenance of this waterway. The group, therefore, enabled the participation and awareness raising of the local community while also contributing to a viable maintenance structure.



Photo. the waterway's opening ceremony

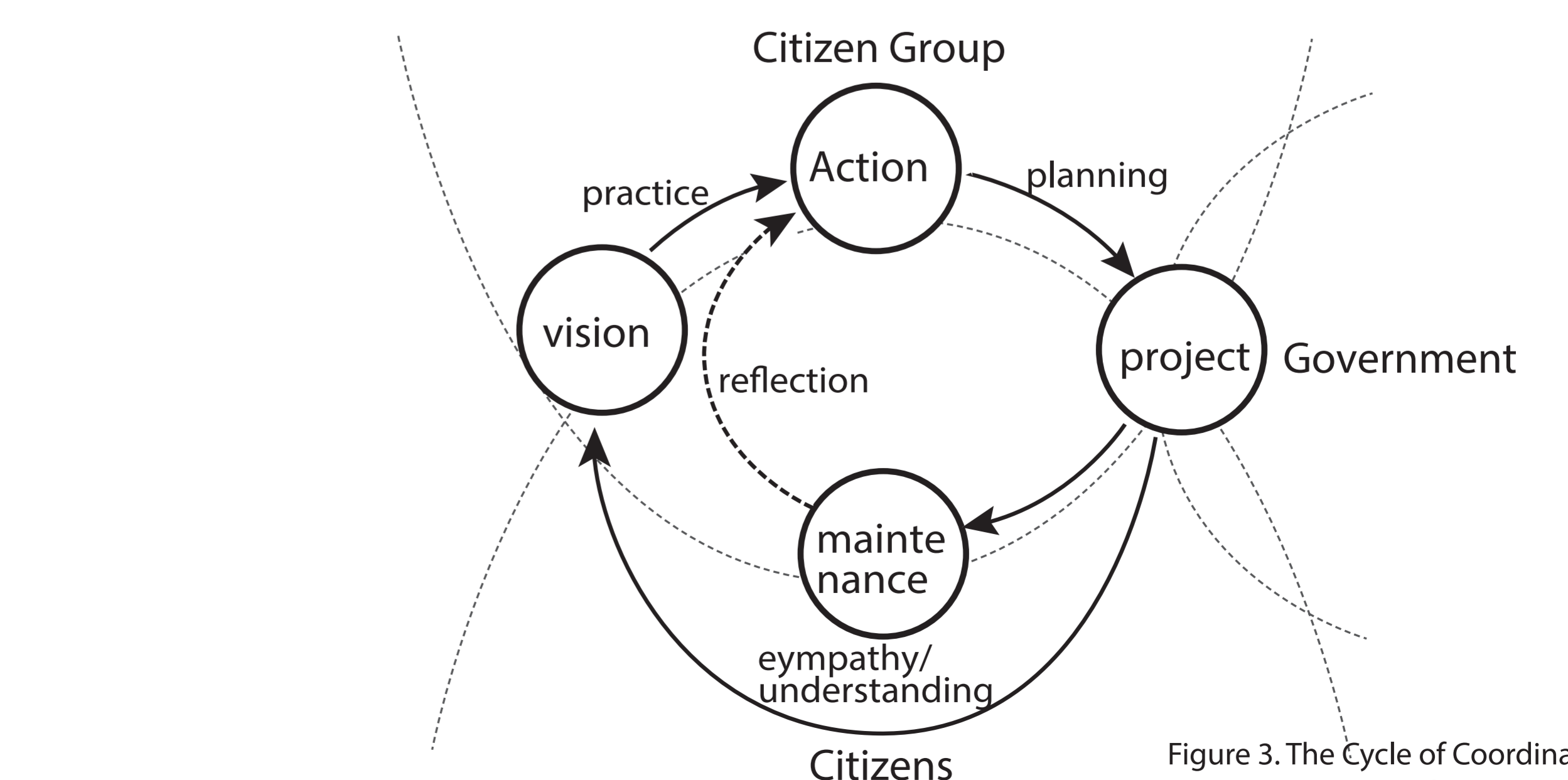


Figure 3. The Cycle of Coordination between Citizen Group, Citizens, and Government.