

# COMMUNITY INTERACTION TECHNIQUES IN CONTINUING TRANSPORTATION SYSTEMS PLANNING: A FRAMEWORK FOR APPLICATION

Richard Yukubousky, New York State Department of Transportation

This paper presents a preliminary evaluation of the applicability of 50 community interaction techniques within the continuing phase of long-range transportation systems planning. Many of these techniques have been successfully used in other functional planning areas but have not been tried in transportation systems planning. Basic citizen participation principles and constraints are identified at the onset of the paper. A planning process framework is proposed that emphasizes policy resolution, ensures that transportation actions complement desired future community life-styles, emphasizes short- and medium-term problem-solving, and explicitly recognizes the political nature of transportation decision-making. Community interaction techniques are then classified by participation intensity level; communications requirements; applicability to systems planning, corridor location planning, and design; utility for completing various tasks; and estimated staff effort. This tabulation results in an array of potentially useful techniques for each systems planning activity. Technique selection criteria to aid the planner and community in choosing from this array are suggested.

•TRANSPORTATION plans have been developed traditionally by specialists working in relative isolation from the public as a whole, private interest groups, and individuals. Developed plans are then presented to the public through hearings or informal presentation.

Opposition encountered at project-level public hearings suggests that better methods are needed by which citizens can influence transportation decisions in a timely manner. Citizen participation should occur from the very onset of transportation systems planning. Recent legal and administrative requirements have provided added impetus. Most notable of these requirements derives from Section 136(b) of the Federal-Aid Highway Act of 1970 requiring transportation planning agencies receiving federal funds to develop an Action Plan that demonstrates that its entire project development process thoroughly considers all possible adverse social, economic, and environmental effects of proposals and that final decisions are made in the best overall public interests. These guidelines mandate increased citizen participation in the entire development process for transportation projects.

This paper presents a preliminary evaluation of the applicability of 50 community interaction techniques within the continuing phase of long-range transportation systems planning. Many of these techniques have been successfully used to involve citizens in other functional planning areas (e.g., Model Cities, water resource planning, and educational goal setting), but have not been tried in transportation systems planning. The New York Department of Transportation's Planning and Research Bureau has an active citizen participation research project under way; it has provided valuable input to the development of New York's Action Plan. Some of the more promising techniques will be implemented, monitored, and critically evaluated to determine the appropriateness of continued, more extensive use.

## BASIC PRINCIPLES

Citizen participation is interaction among citizens, elected and appointed officials, and the planning staff early enough to afford the public full opportunity to influence transportation decisions. Effective citizen participation provides a forum for all interested parties with views on alternative actions so that informed decisions can be made with the best available information on the incidence and magnitude of all social, environmental, economic, and technical consequences of alternative actions.

There are many reasons why citizen participation may be desirable in planning: identify citizen desires, supplement staff with expertise and free time of community interests, enhance technical product by ensuring that all social, economic, and environmental impacts are considered, heighten community awareness of planning and policy issues, increase probable community acceptance of final decision, and meet legal requirements.

The transportation planning process should provide for both decisiveness and widespread participation. Urban transportation planning and policy decisions are made by elected and appointed officials, who must balance the needs and demands of many constituent groups. Thus, decisions are "political," i.e., compromises and trade-offs will occur. This decision framework is appropriate provided all interested parties have adequate opportunity to influence the outcome.

Within this framework, the function of planning is to provide the most complete set of information possible consistent with available community resources, including citizen views. Furthermore, the planner manages information-gathering and fact-finding activities; assists public in articulating its hopes, aspirations, desires, values, goals, objectives, and views; and identifies technical solutions to problems and their impacts and constraints. The planner must be an educator, communicator, clarifier, consultant, enabler, and change agent (1).

## PLANNING PROCESS OVERVIEW

Long-range transportation systems planning can be defined by a set of activities that yield required output, available resources (money, manpower, data) that limit the scope and depth of this output, and interactions among various process participants that achieve these outputs. Each factor influences the selection of community interaction techniques needed to stimulate the desired or required level of community participation in any planning activity. Therefore, we cannot adequately discuss community interaction techniques until we have identified desired process products; key decision points; information needed to make technical and political decisions; sequence of activities that yield required information; existing manpower resources that can contribute valuable ideas, views, reaction, and information; and roles of actors in completing each planning activity.

Rather than assumptions being made that the present processes of completing transportation systems planning are adequate, modifications are proposed that attempt to make the process more understandable to the laity, place greater emphasis on policy resolution, ensure that transportation actions complement the community's desired future life-styles, place greater emphasis on short- and medium-term problem-solving, and emphasize the political nature of transportation decision-making.

## PRODUCTS AND DECISIONS

A plan is a statement of intention to perform certain actions; these actions attempt to solve existing or projected future problems and suggest the means by which transportation service can promote desirable future life-styles.

Product or output of the transportation systems planning process include recommended provision of non-capital-intensive transportation service, capital construction programs, policies, and legislation. An assertion of priorities and a recommended schedule of actions orchestrate these changes in an orderly manner. Since these actions are recommended for implementation in a political process, the plan must also present information essential to understanding the basis of these recommendations:

projected impacts or consequences of action or inaction, evaluation, techniques, data, and the degree and type of community agreement already achieved. Existing technical, fiscal, legal, administrative, and political constraints that may curtail implementation must be identified. Finally, a progress report on the process itself is a desirable planning product.

Long-range transportation systems planning should be comprehensive. The purposes of transportation actions are to provide mobility for people, improve accessibility to places, and efficiently move goods. Comprehensive transportation planning objectively considers all existing or possible modes and the distribution of benefits and disbenefits to transportation users, providers, residents, government agencies, business and industry, and other community interests impacted by transportation actions. These actions can include governmental provision of facilities or services, promotion through incentives, encouragement, regulation, or cooperative effort with the private sector.

#### PROCESS ACTIVITIES AND INFORMATION NEEDS

The planning process is continuing development that involves many changes and requires a number of steps or operations; it is a flow of activities leading to desired products. The long-range transportation systems planning process should be designed to develop information and recommendations to stimulate political decision. The term "political"—influences affecting the decisional outcomes of government—is used to differentiate between those decisions and technical decision.

Figure 1 shows the relation of major activities within an interactive long-range transportation systems planning process. This process consists of 4 major phases: community mobilization, exploration, policy resolution, and service evaluation. Activity blocks shown in Figure 1 are keyed to the following descriptive text.

1. Community Mobilization. An important activity in a participatory planning process, community mobilization identifies sources of technical expertise, major participating actors, and other planning resources and carefully delineates and obtains agreement on the roles of various process participants. It is important that a process agenda be established, followed, and understood and that the decision-making process be clear to all participants. Key citizens are identified and sensitized, interaction techniques are selected jointly with key citizens, and extensive community participation is solicited. An areawide community mobilization occurs prior to exploration and policy resolution. The major activities of community mobilization are

- a. Identify key citizens,
- b. Identify sensitive key participants,
- c. Select interaction techniques,
- d. Prepare background, and
- e. Solicit wider involvement.

Each service evaluation requires a separate and more localized community mobilization.

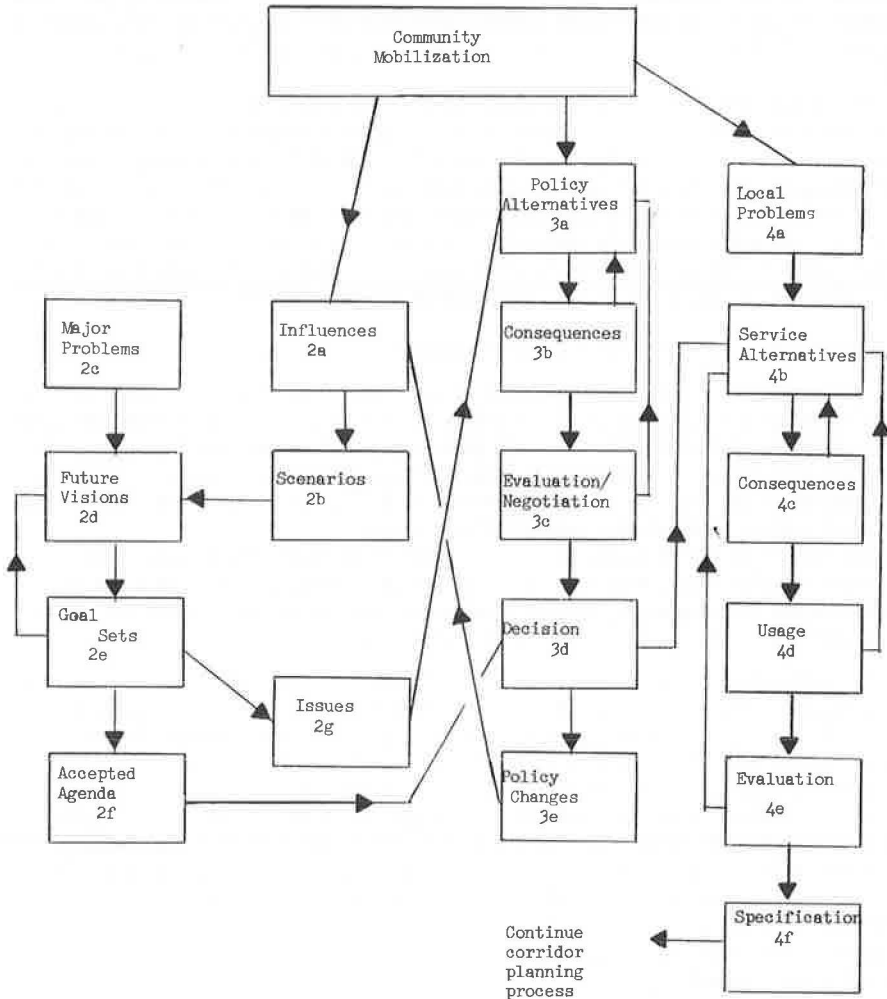
2. Exploration. The purpose of exploration is to identify key regional transportation issues, i.e., matters or questions to be disputed or decided through a dialog process. Within the context of the continuing transportation study, exploration will occur in plan reevaluation. There are several major outputs of exploration.

a. Influences. Key transportation decisions are influenced by various funding programs, guidelines—governmental, legal, administrative, and regulatory—policy decisions made by the public and private sector, population growth, technological development, and sociocultural norms.

b. Scenarios. A scenario is an outline or synopsis that indicates activity or action in the order of its development. Alternate scenarios can be created by assuming that key policy changes occur. One scenario can be labeled a "trend forecast"; its purpose is to estimate the future condition of the transportation system if none of the current influences changes. Potential future transportation problems can be identified through these exercises.

c. Major Problems. Major problems can include existing transportation and significant transportation-related difficulties or symptomatic disorders. The purpose in identifying and ranking these is twofold: to provide input to goal articulation and to

Figure 1. Major planning activities within interactive transportation planning process.



identify opportunities for transportation solutions. Examples of major problems that must be considered in long-range transportation systems planning include energy shortages, environmental and ecological degradation, housing shortages, poor transportation service, inadequate mobility for all groups, and a depressed local economy.

d. Future Visions. Solutions to perceived current and future physical, social, and economic problems are contained in future visions. They indicate not what the future may be but what the future should be. Many future visions exist because of the pluralistic nature of our society.

e. Goal Sets. Current planning practice is to generate one set of goals for the transportation study area that everyone presumably agrees to. Unfortunately, these goals must be very general and abstract before all or even most community interests concur. Some planners have labeled these as "apple pie and flag" goals because conflicting community goals held by a full spectrum of interests are not explicitly recognized. Furthermore, even people who hold similar goals often weigh them differently. Instead, goal sets that are an outgrowth of future visions and perceived existing and future problems should be identified.

f. Accepted Agenda. Some goals are commonly held by most or all major partic-

ipants. This agreement provides the basis for drawing up an agenda or list of actions to be taken. An examination of alternative future visions in the Boston Transportation Planning Review, for example, suggested that improvements to arterial streets, truckways, parking, radial line-haul transit, core and downtown transit distribution systems, intensive coverage transit, and circumferential transit were common to all major future visions (2).

g. Issues. Issues evolve from conflicts in alternative goal sets; i.e., they are matters or questions to be decided or disputed. Issues help to define policy analysis needs by heightening awareness of topics requiring hard decisions.

3. Policy Resolution. The purpose of policy resolution is to resolve transportation issues to the fullest extent possible and to establish priorities for intensive service evaluations. Plan reevaluation will focus on policy resolution. Also, routine review or major review (in the continuous study) will highlight specific issues requiring short-range policy evaluation studies. The following are key outputs of policy resolution.

a. Policy alternatives. These will evolve from conflicting goals and thus provide a range of choice.

b. Consequences. The magnitude, incidence, and uncertainty of all significant adverse and beneficial social, economic, environmental, and technical impacts of alternative actions can be identified from all viewpoints.

c. Evaluation and Negotiation. In a participatory planning process, an integral part of evaluation is either formal or informal negotiation. A proposal is usually rejected because people perceive the total cost (to them) as being greater than the benefits (to them). Negotiation directly addresses the question, What changes can be made to this alternative to make it acceptable to party X without losing the support of other parties?

d. Decision. If agreement can be negotiated, a decision should be no more than formal ratification of one course of action. When agreement is not possible, the designated decision-makers decide based on the best available information.

4. Service Evaluation. The purpose of service evaluation is to specify the range of applicable modes, facility types, and service levels for subsequent corridor refinement and to make a preliminary identification of the impacts of alternative solutions. As such, this phase of systems planning merges with corridor or location planning. General planning activities that comprise service evaluation will be similar to those of policy resolutions. However, the analysis detail level, types of alternatives considered, and nature and scope of identified impacts will be geared toward choosing specific corridor projects or solution packages. The specific activities are as follows:

a. Local problems. These are neighborhood-level, transportation-related problems that are tangible to area residents and can be either solved or complicated by alternative transportation improvements.

b. Service alternatives. Options include different modes, facility types, service levels, location bands, and design features.

c. Consequences. During service evaluation, consequences will be more localized and detailed than those addressed in policy resolution.

d. Usage. How many people will be served by each alternative?

e. Evaluation. Criteria can include the level of service provided, growth impact, network considerations, impact on open space and the ecology, air quality, community disruption, and any other community objective.

f. Specification. Systems planning considerations and the available level of detail will usually not be sufficient to specify projects and service levels. Intense corridor or location studies will start with the range of possible solutions from service evaluation and continue to project-level decisions.

Throughout service evaluation there will be an interplay between individual corridor assessment and network evaluation since a service specification made in one corridor can impose additional loads or remove pressures from other links in the network. In the context of the continuing transportation study, routine review and major review (2 plateaus of plan reappraisal) describe the technical processes by which adopted systems plans are altered when corridor project development and implementation occur (3).

Except when a full plan reevaluation occurs, the major focus of the continuing transportation study will probably be corridor service evaluations.

### COMMUNITY PARTICIPATION PARAMETERS

In a complex society, it is naive to expect that all citizens have thoughts or feelings about all issues. According to their own priorities, persons ration their capacities to perceive, to remember, to decide, to communicate, and sometimes to participate. Thus, any particular community issue, such as transportation, can be expected to interest only some of the citizens. If the interactive planning process is carefully designed, everyone will at least be aware of and have an opportunity to participate. Each person will of course select the issues that are most relevant and budget his or her time accordingly.

For discussion purposes, it is convenient to stratify participants into classes indicative of the level and type of their expected involvement and interest in a participatory transportation planning exercise:

1. Key citizens are citizens whose interest in a community issue is potentially most intense, usually initiators, activists, or leaders in the groups they are affiliated with. They can also be unaffiliated citizens with strong personal or professional interests in a particular issue.
2. Community officials are local decision-makers, either elected or appointed, and the county, city, town, and village agency personnel who are administratively responsible to these decision-makers.
3. Transportation study organizations include transportation planning committees, commissions, and technical study staffs responsible for transportation policy-making and planning in urbanized areas.
4. Implementing agencies are the departments of transportation, regional public transportation authorities, and urban renewal and other agencies that implement transportation service or related joint development activities.
5. Federal, state, and regional public agencies include those that have responsibilities in program areas necessitating interaction with transportation functions.
6. Other citizens are individuals not covered in the above categories, particularly organized groups and unaffiliated citizens who may be impacted by alternative transportation actions.

Citizen participation mechanisms can be defined by combinations of community interaction techniques matched to planning process activities and actors. Community interaction includes the ways by which the planner learns about the community; the community learns about the planning process, range of alternatives, impacts, and decision process; the community learns about itself; and the planners and the community work in partnership (4). Approximately 50 community interaction techniques (5, 6) have been identified and categorized by a set of descriptors (Table 1).

### PLANNING ACTIVITY AND INTERACTION TECHNIQUE MATRIX

Table 2 gives community interaction techniques to involve officials and citizens in completing various transportation systems planning activities and tasks. Actor groups are defined by their participatory desires, thus other citizens are by definition those whose interests are less intense than key citizens. Furthermore, interest levels of actors within each matrix cell will also differ. Therefore, the planner will probably use at least one information-response technique and one dialog technique to complete each activity. Final selection of techniques from those given in Table 2 will be guided by the criteria discussed below.

### TECHNIQUE SELECTION CRITERIA

There are often many techniques that can be used to stimulate the involvement of a specific set of actors in a specific planning process activity. Criteria or considerations to guide the planner and community in their selection of techniques are suggested.

Table 1. Community interaction techniques by descriptive dimensions.

Participation	Technique	Code	Focus <sup>a</sup>	Stage in Process <sup>b</sup>	Staff Effort <sup>c</sup>
None	Encourage internal communications	N1	A	P	L
	Monitor mass media	N2	A	P	L
	Analyze past and current plans	N3	L, C	G, A, I	L
	Review election issues	N4	L, C	G, A	L
	Conduct background studies	N5	A	P	M
	Do sensitivity training (laboratory method)	N6	A	P	M
	Catalog planning and design concepts	N7	A	A	L
	Do parallel search	N8	A	G, A, I	M
	Monitor impacts of completed projects	N9	C, D	I	L
	Provide capabilities to deal with nontrans- portation problems	N10	A	A, N	L
	Test communications for effectiveness	N11	A	P	L
	Initiate legislation	N12	A	I, N	M
Low	Establish a process agenda and operate within	L1	A	P	M
	Produce material for the media	L2	A	P	L
	Present range of alternatives to public	L3	A	A	L
	Map sociopolitical data	L4	A	I	L
	Illustrate in lay terms	L5	A	P	L
	Conduct demonstration project	L6	C, D	I, N	M, H
	Conduct experiment	L7	C, D	I, N	L, M
	Educate public about planning and decision process	L8	A	P	M
	Listen to public for suggestions	L9	A	P	L, M
	Look for analogies	L10	A	P	L
	Maintain open planning and project files	L11	A	P	L, M
Medium	Survey facts, opinions, and attitudes	M1	A	G, A, I	M
	Hold public hearings	M2	A	I, N	M
	Circulate issue ballots	M3	L, C	G, A, I	M
	Schedule participatory TV programs	M4	L, C	G, A, I	M
	Hold citizen referendum	M5	L, C	N	M
	Do value analysis	M6	A	G	M
	Set up community-led seminar	M7	L, C	G, A, I	L
High	Do anthropological field work	H1	C, D	G, A, I	H
	Use citizen advisory committee	H2	A	G, A, I	M
	Hire an advocate	H3	C, D	P	L
	Operate a field office	H4	C, D	A, I, N	H
	Mediate between interests	H5	A	N	H
	Look for third party in negotiations between 2 interests	H6	A	N	L, M
	Appoint task force	H7	A	G, A, I	M
	Hold workshops	H8	A	G, A, I	M
	Hold informal neighborhood work meetings	H9	A	P	L, M
	Conduct a design-in	H10	C, D	A, I, N	M
	Establish and maintain contact with key actors	H11	A	P	L, M
	Use role playing and games	H12	L, C	P	M
	Appoint ombudsman	H13	A	I, N	H
	Deal with public in agency offices	H14	A	P	M
	Engage in charette	H15	C, D	G, A, I	M
	Employ community residents	H16	A	P	L
	Brainstorm	H17	A	A	L, M
Generate extreme solutions from various viewpoints	H18	A	A, I	L, M	
Set up listening posts	H19	L, C	G, A, I	M	
Do arbitral planning (hearing officer)	H20	A	N	M	

<sup>a</sup>L = long-range systems planning, C = corridor planning and site selection, D = design, and A = all of above.

<sup>b</sup>G = goals, problems, and issue identification; A = alternative action identification; I = impact prediction; N = negotiation and evaluation; and

P = anywhere in process.

<sup>c</sup>L = low, M = medium, and H = high.

1. Available resources. Resources can include money, manpower, time and expertise provided by the transportation planning staff, other planning agencies (such as the regional planning boards,) community officials, and citizens.

2. Local perspective. What do local community officials and key participants consider to be a workable community interaction planning approach? Which techniques have succeeded or failed in the community? How committed is the community to interactive community planning? Are participants willing to commit their time and skills to organize, manage, and direct community participation planning activities?

3. Ease of application. Does the planner know how to use the technique properly? Do key participants understand what the technique attempts to accomplish?

4. Agency credibility. Does the community believe that the agency is a reliable source of information? If not, certain techniques might be perceived as attempts to

Table 2. Community interaction techniques by planning activity and actors.

Planning Activity	Actor	Involvement	Technique
1a	Transp. study, reg. plan. board, local officials, state and federal agencies	Varied	N1, N8, L2, H17, H1, H11 <sup>a</sup> , M1 <sup>a</sup>
1b	Transp. study, key citizens, local officials, reg. plan. board, state and federal agencies	Information-response Dialog	L1 <sup>a</sup> , L2, L8 <sup>a</sup> , M7 N6, H12, H8 <sup>a</sup> , H9 <sup>a</sup>
1c	Transp. study, key citizens, local officials, reg. plan. board	Dialog	H2, H7 <sup>a</sup> , H8 <sup>a</sup> , H9 <sup>a</sup> , H17, H15
1d	Transp. study, key citizens, local officials, reg. plan. board	None Information-response Dialog	N5 <sup>a</sup> , N8, N4 L9, M7 H7, H8 <sup>a</sup> , H9 <sup>a</sup> , H11
1e	Transp. study, key citizens, local officials, reg. plan. board	Information-response Dialog	L1 <sup>a</sup> , L2 <sup>a</sup> , L5 <sup>a</sup> , L8 <sup>a</sup> M11 <sup>a</sup>
2a	Transp. study, key citizens, reg. plan. board, state and federal agencies	None Information-response Dialog	N5 <sup>a</sup> , N8 <sup>a</sup> , N1 M1, M7 H7, H8 <sup>a</sup> , H9 <sup>a</sup> , H11
2b	Transp. study, key participants reg. plan. board	Dialog	H3, H7 <sup>a</sup> , H8 <sup>a</sup> , H9 <sup>a</sup> , H17
2c	Transp. study, key citizens, local officials, reg. plan. board, state and federal agencies Other citizens	Information-response Dialog Information-response Dialog	M1 <sup>b</sup> , L4 <sup>a</sup> , M3 <sup>b</sup> , M4 <sup>b</sup> , M7 <sup>ab</sup> H2, H19 <sup>a</sup> , H7 <sup>a</sup> , H8 <sup>ac</sup> , H9 <sup>ac</sup> , M11 L9, M1 <sup>b</sup> , L4 <sup>a</sup> , M3 <sup>b</sup> , M4 <sup>b</sup> , M7 <sup>b</sup> H3, H13, H14, H1, H4, H19 <sup>a</sup> , H7 <sup>a</sup> , H8 <sup>a</sup> , H9 <sup>a</sup>
2d	Transp. study Transp. study, key citizens, local officials, reg. plan. board, state and federal agencies Other citizens	None Information-response Dialog Information-response Dialog	N5 <sup>a</sup> , N8, N3 <sup>a</sup> , N2 M3 <sup>b</sup> , M4 <sup>b</sup> , M7 <sup>b</sup> I12, I19 <sup>a</sup> , I7 <sup>ac</sup> , I18 <sup>ac</sup> , I19 <sup>ac</sup> , I17, I15 L3, L4 <sup>a</sup> , M1, L9, M6, M3 <sup>b</sup> , M4 <sup>b</sup> , M7 <sup>b</sup> H3, H1, H4, H19 <sup>a</sup> , H7 <sup>a</sup>
2e	Same as 2d		
2f	Transp. study, key citizens, local officials, reg. plan. board	Information-response Dialog	M1, M3, M7 <sup>a</sup> H19, H7, H8 <sup>a</sup> , H9 <sup>a</sup> , H15, H11 <sup>a</sup>
2g	Same as 2f		
3a	Transp. study, key citizens, local officials, public agencies Other citizens	Information-response Dialog Information-response Dialog	L10, M3 <sup>ab</sup> , M4 <sup>b</sup> , M7 <sup>ab</sup> H19 <sup>ac</sup> , H12, H7 <sup>c</sup> , H8 <sup>ab</sup> , H9 <sup>ab</sup> , H17 <sup>ac</sup> , H15, H11 <sup>ac</sup> L3 <sup>a</sup> , L4, L9, M3 <sup>b</sup> , M4 <sup>b</sup> , M7 <sup>b</sup> , H9 <sup>b</sup> H3, H13, H4, H1, H19 <sup>a</sup> , H7 <sup>a</sup> , H17 <sup>a</sup> , H11 <sup>a</sup>
3b	Transp. study	None	N8, N5, N4, N7 <sup>a</sup>
3c	Same as 3a plus technique M2 Transp. study, key citizens, local officials, reg. plan. board	None Information-response Dialog	N5, N10 <sup>a</sup> N12 <sup>a</sup> H3, H9, H5 <sup>a</sup> , H6 <sup>a</sup> , H11 <sup>a</sup> M5, H20
3d	Transp. study, community officials		
4a	Key citizens, community officials, transp. study, reg. plan. board, implementing agencies Other citizens	Information-response Dialog Information-response Dialog	M1 <sup>ab</sup> , M7 <sup>ab</sup> H7 <sup>b</sup> , H8 <sup>b</sup> , H9 <sup>b</sup> , H2, H19 <sup>b</sup> , H15, H11 M1 <sup>b</sup> , M7 <sup>b</sup> , H7 <sup>b</sup> , H19 <sup>b</sup> , L9, M6, N2 H3, H1, H4, H14
4b	Key citizens, community officials, transp. study, public agencies, implementing agencies Other citizens	Information-response Dialog Information-response Dialog	L4 <sup>ab</sup> , M3 <sup>b</sup> , L10, M7 <sup>ab</sup> , L2 <sup>ab</sup> , L3 <sup>ab</sup> , L11 <sup>b</sup> H7, H8 <sup>a</sup> , H9 <sup>a</sup> , H18 <sup>a</sup> , H2, H12, H19 <sup>a</sup> , H15, H17 <sup>a</sup> , H10 <sup>a</sup> , H11 <sup>ac</sup> , H4 <sup>c</sup> L4 <sup>b</sup> , M3 <sup>b</sup> , M7 <sup>b</sup> , L2 <sup>b</sup> , L3 <sup>b</sup> , L11 <sup>b</sup> , L9 H8 <sup>b</sup> , H9 <sup>b</sup> , H18 <sup>b</sup> , H19 <sup>b</sup> , H17 <sup>b</sup> , H10 <sup>b</sup> , H11 <sup>a</sup> , H4 <sup>a</sup> , H16, H3, H14, H13
4c	Same as 4b, plus all participants		
4d	Key citizens, community officials, transp. study, implementing agency	None Information-response	L6, L7 N8, N9, N10, N5 L4

<sup>a</sup>Relatively simple and easy to use.

<sup>b</sup>Information-response techniques for all actors for specific activities.

<sup>c</sup>Dialog techniques for all actors for specific activities.

manipulate. How does the agency enter the process? Does it initiate citizen participation in the community? Or is it forced into a reactive role?

5. Complexity of planning activity. How many people are impacted? What is the size of the participating group? How severe are the existing local problems? What is the area extent, and how developed is the geographic planning area?

6. Status of interactive planning in community. Do community participation programs exist in other functional planning areas (Model Cities, OEO, water resources) within the community? Can these be tapped and plugged into transportation planning?

7. Internal agency communications and work relationships. Are internal agency communications and work relations strong enough to allow the planner to tap other agency resources needed to successfully implement certain techniques?



8. Specific advantages and disadvantages of techniques. These also provide technique selection criteria.

The specification of performance measures for citizen participation mechanisms and techniques and the testing and monitoring of various techniques relative to these measures are topics requiring further research.

### CONCLUDING REMARKS

Implementing citizen participation at the systems level is no easy task. The organizational structure, responsibilities, and roles of the policy bodies of transportation studies, comprehensive regional planning boards, regional or city transportation operating authorities, and project implementing agencies need to be carefully delineated or re-evaluated or both in some metropolitan areas to ensure that systems plans result in service implementation and that citizen participation resources are efficiently used. New or increased funding may be required to implement meaningful community participation programs, hire additional or specifically trained staff, and possibly to reimburse certain participating citizens' expenses. Staff members must be trained in citizen participation strategies, approaches, and techniques; effective intergroup communications and group dynamics; nontechnical planning and political decision-making processes; and community participation management activities. Suitable methods and techniques are available; implementation issues are primarily administrative and institutional.

Some of the terms given in Table 2 are defined as follows:

1. Anthropological field work. A fieldworker, as a participant-observer, explores a neighborhood's culture to identify how various life-styles are intertwined and to identify community values.

2. Brainstorm. A technique used to encourage people to articulate their ideas no matter how tentative or far-out they may be; participants' suggestions are not criticized. Rather, participants try to stimulate each other's thinking by picking up ideas and developing them further.

3. Task force. A temporary alliance formed to solve a specific problem or to complete an arduous job; it is usually composed of persons of diverse expertise and skills.

4. Charette. An intense brainstorming process to produce plans within a strict, usually short, period of time.

5. Process agenda. A schedule of important activities and decision points accompanied by a description of the process activities and decision-making framework.

6. Issue ballots. A short mail-back ballot, usually circulated with a daily newspaper, containing open-ended issue questions and follow-up questions that critique the structure of the ballot. Respondents are self-selected and are provided with personalized follow-up opportunities, e.g., an option to have their ballots forwarded to a public official of their choice after the ballots are tabulated.

7. Participatory TV. Information is fed forward through the television (or radio) media; participants respond by telephone to indicate their feelings.

8. Ombudsman. An independent and nonpartisan public officer who investigates and expedites the resolution of complaints from the public alleging bureaucratic administrative injustice and incompetence.

9. Advocate. Someone who is hired to interpret technical information for a client and to articulate his position as clearly as possible.

10. Listening posts. A public meeting using issue ballots for a general agenda. The purpose is to provide environments for in-depth considerations and probing of issues. The meeting may be open to the general public or by selected invitation only.

11. Value analysis. A strategy for evaluating the community consequences of alternative proposals that enables a panel of community residents assisted by planners to make recommendations on alternative proposals at community meetings.

12. Role playing and games. By simulating a real-world problem or decision-making situation, games attempt to teach complex interrelations to the players. Role playing is an educational exercise relying heavily on the imaginations of the players; it seeks to uncover values held by community interest groups.

## REFERENCES

1. Osdoby, S. R. An Examination of The Planner's Role in The Participatory Process. Presented at Conf. of American Institute of Planners, Boston, 1972.
2. Themes for The Future. Regional Economic and Development Group, Memorandum to Boston Transportation Planning Review participants, Dec. 16, 1971.
3. Operations Plans for Continuing Urban Transportation Planning. Federal Highway Administration, Instructional Memorandum 50-4-68, May 3, 1968.
4. Manheim, M. L., et al. Community Values in Highway Location and Design: A Procedural Guide. Cambridge, Sept. 1971.
5. Bleiker, H. A Catalogue of Community Interaction Techniques. Cambridge, Sept. 1971.
6. Yukubousky, R. Community Interaction in Transportation Systems and Project Development: A Framework for Application. New York State Department of Transportation, Albany, Prel. Res. Rept. 50, Sept. 1973.

## DISCUSSION

Wayne R. Torrey, Federal Highway Administration

Yukubousky has made a useful contribution to the field of citizen participation in the planning process. He has organized what was previously a mass of significant but difficult to use material.

His format provides the nonexpert with a framework in which he can make rational choices in order to incorporate citizen participation in the decision-making process.

Early in his paper Yukubousky makes the important point that many of the policy decisions made in the transportation planning process are compromises and trade-offs. Thus, they are political decisions. He then develops a model of the process through which these decisions should be made. A model of this process is extremely important if one is to understand at which point citizen input can be usefully made.

However, this model fails to carefully distinguish between activities and inputs and outputs. For example, inputs such as "local problems" are identified as activities. Thus, the process model needs to be refined to increase its precision.

The meat of this paper is in the section on "Community Participation Parameters." Here, he presents an extensive list of techniques classified by degree of participation, planning level, effort required, and process stage. In this section the process has been delineated consistently by functions. A second tabulation identifies which factors, type of involvement, and technique are involved with each of the activities of the process model. Again inputs and outputs are treated as activities.

Yukubousky's extensive classification provides a much-needed step in the development of citizen participation. From it we can move toward developing methods of evaluating the effectiveness of various techniques. Having entered this stage, perhaps citizen participation will cease to be an art form.