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Research Paper

TOWARDS A PARTICIPATORY PLANNING OF MEGA URBAN PROJECTS IN EGYPT "SUCCESS STORY: REGAINS CONTROL OVER EL DABAA NUCLEAR POWER PLANT SITE"

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Public participation is a process that consists of a series of activities and actions conducted by a sponsoring agency to both inform the public and obtain input from them. It affords stakeholders the opportunity to influence decisions that affect their lives. Also, it is a vital component in any community development project. In many ways, the siting of mega urban projects and infrastructure in Egypt still follows the 'decide, announce, defend' conventional approach. This approach did not succeed in different projects in Egypt such as Agrioum Petrochemical project in Damietta. The days of rational top-down modernist planning are over, and practitioners embrace the post-modern model of participatory planning where the public helps to guide land-use decisions for mega projects which have different influences and impacts on public. This paper discusses and evaluates the public participation process which was made by the Egyptian government to regain the control of El Dabba site which had been allocated for the first nuclear power plant and to set a success story for the process of public participation which can provide a procedure for other governmental agencies to have a clear overview of the important considerations in the design and implementation of a meaningful and successful public participation program which can be applied for any future mega urban projects in Egypt such as the new administration capital, new development projects in Suez Canal Spine and New cities.

Keywords: Public, Participation, El Dabba, Nuclear, Power

INTRODUCTION

There is a great deal of public participation being implemented throughout the world today. Laws and regulations in many countries regularly require public meetings and comment on government actions. Some require even more extensive forms

of public engagement and input. The United Nations and other international bodies have also reinforced the importance of public participation to good governance and civil society, and offer many documentations to assist these programs (Environmental Protection Agency).

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The process for siting of El-Dabba Nuclear Power Plants (NPP) started in the 1970's when the Egyptian government decided to construct a new nuclear power plant, and the government allocated a site for this project in El-Dabba in 1981. The Egyptian nuclear power plants program for generating electricity had faced different obstacles which were reflected to the delay of the program. During the revolution in 2011, Egypt faced political changes that had reflected to a lack of security which had led to re-occupation of the El Dabba site by the local people. In 2013, the new government decided to start its NPP project in El Dabba site and had conducted a public participation process to convince local people to hand over the site again. This process had been conducted by the military intelligence office in the North coast and it had been succeeded to clear the site from the local people and to start the NPP program.

BACKGROUND AND LITERATURE REVIEW

Public participation is a process which consists of a series of activities and actions by a sponsor agency over the full lifespan of a project to both inform the public and obtain input from them.

The World Bank defines participatory planning as "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" (Ahmed, 2005). This goes beyond merely allowing residents to voice their opinions about existing plans, but rather learning from residents as expert knowledge from the start of the planning process. This begins by what UN-Habitat describes as "local people as experts and teachers, and outsiders as novices" thus ensuring that plans are based on residents' own visions for their areas (Tadamun Initiative, 2014).

In Europe, researchers have found that a stakeholder process characterized by early inclusion and local decision-making increases community acceptance of large-scale projects, and that a 'soft-path', decentralized approach to infrastructure development, as seen in Germany, leads to greater community acceptance as well, versus the 'hard-path', centralized approach to infrastructure development as typified in early Dutch development (David *et al.*, 2003).

DIFFERENT LEVELS OF PUBLIC PARTICIPATION

There are many different levels of public participation, but all will benefit from engaging stakeholders directly in dialogue about important issues. The International Association of Public Participation (2015) has developed a spectrum of levels of engagement, as shown in Table 1.

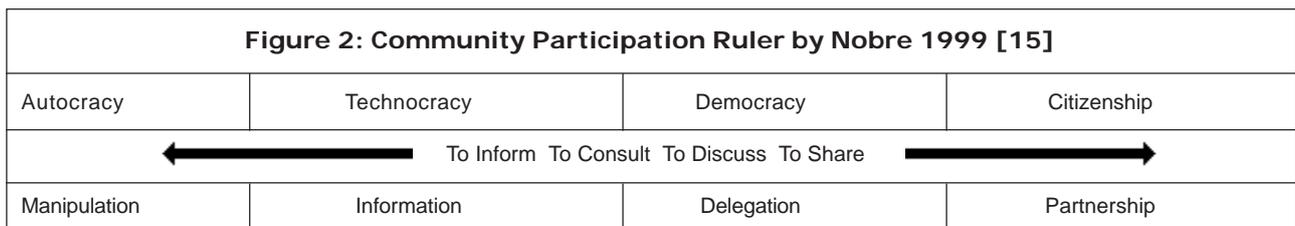
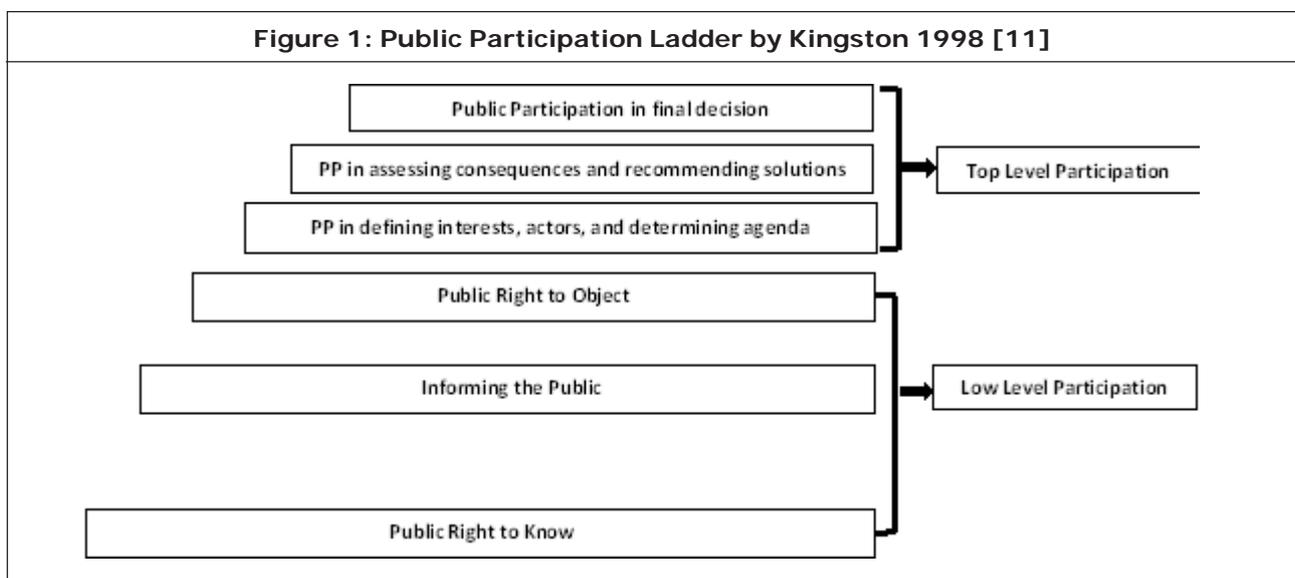
Kingston (1998), has proposed a six-step ladder as shown in Figure 1. Among the steps, one can successively find that in the lower step there is no real public participatory and it goes up till the top of the steps (Kingston, 1998).

Nobre (1999), had presented different scales of involving the public in the planning process (Nobre, 1999) and it include four main degrees of community participation ruler together with the political profile and the proceeding status as shown in Figure 2.

EVALUATION OF PUBLIC PARTICIPATION PROCESS

Evaluation is a relatively new element of public participation but is seen as increasingly vital as public participation becomes more widespread and larger in scale. Therefore the need to assess the effectiveness of different approaches, to increase accountability and to learn from experience becomes more important.

Table 1: Spectrum of Public Participation Levels [7]				
Public Participation Goals				
Increasing Level Of Public Influence				
Inform	Consult	Involve	Collaborate	Empower
To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/ or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.



Different approaches had been implemented and used for public participation evaluation.

In 2010, the Institute for European environmental policy (Jane *et al.*, 2010) had suggested a template to evaluate some case studies and it include the following project characteristics:

- The type of communication tools used throughout the consultation process;
- The range of stakeholders consulted;
- The nature of opposition, if any, to the project;
- Stakeholder satisfaction with the engagement process; and
- Individual contexts related to respective projects

NEW VIRTUAL REALITY TOOLS USED FOR PUBLIC PARTICIPATION

Several kinds of visualization systems can be used for public participation, especially based on virtual reality. For urban planning, an ideal virtual reality system can give the citizen the impression that he is present both in the actual and the planned environment.

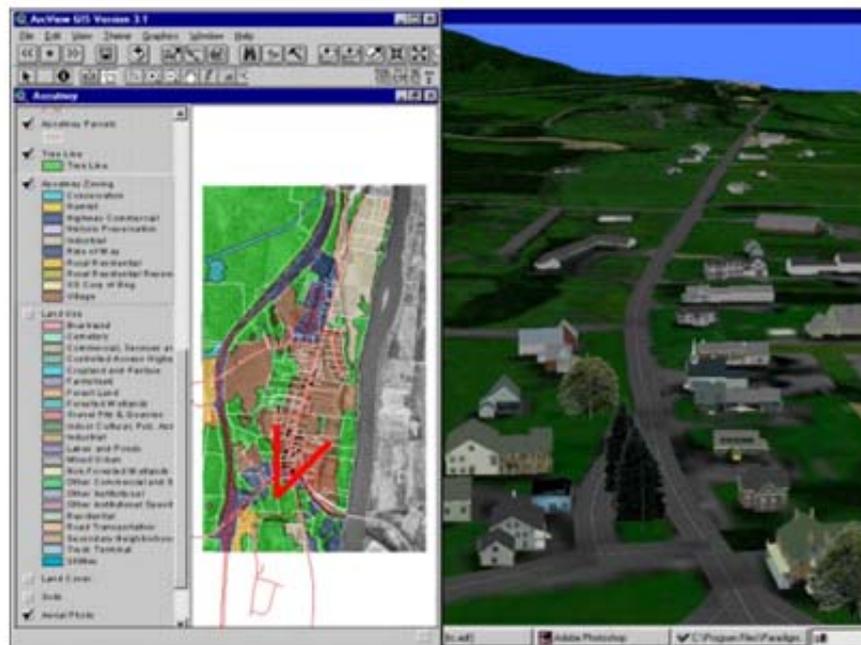
Digital planning tools such as Geographic Information Systems (GIS), 3D visualization technologies and Planning Design and Decision-making Systems (PDDS) can provided different interactive, realtime multi-dimensional environment in which citizens and professionals can reach consensus on goals, objectives/ policies, and design the future of their community (Laurini, 1998). Figure 3 shows example of project visualization.

Egyptian Legal Framework of Public Participation

Egyptian constitution which had been issued in 2013, had different articles related to the public participation and it include:

- In the article 236 it is stated that “The State shall ensure the development and implementation of an overall plan for urban and economic development, for urban border and disadvantaged areas, including Upper Egypt, Sinai, Matrouh and areas of the Nubia, and this shall made with the participation of people in the development projects and in priority to take advantage of them, taking into account the cultural and environmental patterns of the local community, within ten years from the date of this Constitution, and that as regulated by law”.
- In Article 85, the constitution guarantees the right of citizens to communicate with public authorities.

Figure 3: Example of Project Visualization by GIS and 3D [5]



- In Article 68 of the constitution states that “information, data, statistics and official documents are owned by the people. Disclosure thereof from various sources is a right guaranteed by the state to all citizens. The state shall provide and make them available to citizens with transparency”.

Another legal framework is the environmental law No. 4 issued in 1994, which states that public involvement is a fundamental principle of the EIA process of any mega projects.

Finally, the local administration law No. 43 issued in 1979 which is described the rule of elected Local Popular Councils (LPCs) in governorates which are the legal framework in place that provides the primary official channel through which citizens should participate in the planning and management of local activities in all governorates.

PAST EXPERIENCES OF PUBLIC PARTICIPATION IN EGYPT

The case study of Agrium Egypt for production of urea and ammonia fertilizers is one of the famous cases of public opposition appeared because a lack of public participation. In early 2007, Agrium which is a petrochemical company announced a joint venture with three Egyptian state corporations to construct a plant with the capacity to produce 1.4 million tons of fertilizer. The plant was proposed to be established in the governorate of Damietta in the city of New Damietta. During the implementation phase of the project the local people was contradicted to the project and they had been conducted different demonstrations in 2009 as shown in Figures 4 and 5, and they asked the government to relocate the facility because

of the risk of pollution which the plant will generate (Mohamed, 2009).

In the evaluation of this case study, it is found that the EIA report of the plant was made and approved by academic reviewers which based on that the plant will be built based on a German technology, and it has more safety features than any other petrochemical plant in Egypt and also it will be built about 6 km away from any residential area. It is found that the EIA had missed to make a real public participation process in the early stage of the project and finally the construction work stopped and its location had been changed to another area.

This case study showed the importance of public participation process in all stages of projects starting from “Scoping” phase in order to avoid local opposition and to gain people

Figure 4: Women Demonstration in Damietta for Refusing Agrium Project [14]



Figure 5: Participation of Children in a Demonstration in Damietta for Refusing Agrium Project, 2009 [14]



confidence and reduce conflicts through the entire project.

HISTORY OF EL DABBA NPP SITE

Egypt had an interest in developing nuclear power for electrical generation since the 1960s. In the 1970's, the process for siting of El Dabba nuclear power plants started, and according to nuclear scientists, El Dabba site is the ideal location for the project taken into consideration technical and ecological concerns. In 1981, the state declared large parts of El Dabba governmental property in order to build the first nuclear plant by a Presidential Decree number 309 in 1981. During the 1990s fences around the site and some experimental facilities had been built.

The Egyptian nuclear power plants program for generating electricity had faced different obstacles which were reflected to the delay of the program (Ibrahim, 2015). During the revolution in 2011, Egypt faced political changes that had reflected to a lack of security, and had led to re-occupation of the El Dabba site by local people.

In 2013, the new government decided to start its new nuclear power plant project in El-Dabba site (IISS, 2008), and had conducted a public participation process to convince the local people to hand over the site again. This process had been conducted by the military intelligence office in the North coast and it had been succeeded to clear the site from the occupied people and to start the NPP program.

PUBLIC PARTICIPATION PROCESS IN EL DABBA SITE

The development of nuclear power plants is an issue of land use. Unlike other land-uses, which can be alternatively sited, nuclear power plants

relies on the abundance safety related issues in the site which include seismic, earthquake, floods, geological, hydrology, and also in sites accessible to power transmission, grid connection. Residents near the NPP projects worry about public health impacts, land uses, equal rights for the result benefits of development (IAEA, 2006).

In El Dabba site there are different obstacles which had been identified and it include:

- Removing the ownership from the local people in the 70's without doing any development in the site which leads to mistrust in the government plans.
- The local people had lost the opportunity to invest and develop their own lands for long time and the people asked for reevaluation and fair compensation with the today prices.
- The local people asked to be part of the development project and not to evacuate them from the area and they asked to have a new city for the people transferred from the site.

The Public Participation Process for El Dabba Project started in 2013 with the following activities:

- 1) Different meeting between head of tribes and representatives from the intelligence military office and governor of Marsa Marouh.
- 2) Meeting with President Sisi in October 2013 (when he was a Minister of Defense on that time) with the Heads of Tribes as shown in Figure 6.
- 3) Signature of the agreement on 23, September 2013 between the heads of tribes in El Dabba city and also in the province of Marsa Matrouh, the armed forces represented by the military intelligence office in North coast, governor of Marsa Matrouh. The agreement had include the following items:

**Figure 6: Meeting with the Head of Tribes with President Sisi
(When he was a Minister of Defense in October 2013)**



- Announcement of the agreement to the public on September 30, 2013.
 - The military will receive the land of El Dabaa from the local people.
 - The government will have a new evaluation of the land according to current prices in the Egyptian markets and will provide fair compensation for the people evacuated from the site.
 - Abolition of all lawsuits of the local people which reflected from the occupation of the site during the January 2011.
 - Constructing a new city for the local people near the site.
 - Constructing a new advanced technical school for nuclear energy which can develop job opportunities for the young people to be part of the development in the city.
 - Improving the infrastructure such as the road, water supply and sewage system in the region.
- 4) Action activities:
- The Egyptian Cabinet had endorsed the agreement by issuing a cabinet of ministers' decree on November 27, 2013.
 - In November 2014, a president decree had issued to allocate 2300 Feddans for the Ministry of Defense to establish a new urban community for the people of El Dabaa, and for the staff which will work in the nuclear power plant in addition to the services necessary for the region.
 - The surveying authority which is the official authority for compensation of public land had revaluated the land (Area is about 12000 Faddan) with today prices which is about 30000 LE per feddan and the total amount of compensation is 360 Million LE and it had been delivered the first compensation portion for the local people.
 - The Ministry of Defense began to construct a new community which includes 234 apartment and 1,500 separate homes with a Bedouin-style, and construction will be completed this year, with cost up to one billion Egyptian pounds.

Figure 7: View of the New City of El Dabba (by the Author, April 2016)

EVALUATION OF PUBLIC PARTICIPATION PROCESS OF EL DABBA SITE

According to the department for constitutional affairs in UK (Diane *et al.*, 2016), evaluation can help work on public participation in four main ways:

- Clarifying the objectives of the exercise by finding practical ways to measure success of the process.
- Improving project and program management and improvement by building in review and reflection as the work progresses, especially on progress towards the objectives of the exercise.
- Improving accountability by fully reporting what is done and what it achieves; possibly linking to performance management.
- Improving future practice and policy by developing hard evidence and knowledge about 'what works' and what impacts different approaches can have.

In this paper, the evaluation criteria mentioned above had been used to evaluate the public participation process used in El Dabba site as shown in Table 2. To measure the success of the public participation process in El Dabba site different indicators had been used and it is summarized in Table 3. After final evaluation of El Dabba Public Participation process, the results had showed that the process was successful and had reached its objectives for the government and local people with a professional systematic approach and transparency which had led to hand over the site to start the nuclear power plant program in Egypt.

Table 2: Evaluation of the Public Participation Process of El Dabba Site

Goals / Purpose	Indicators	Sub Indicators	Evaluation Criteria	Evaluation of El Dabba Public Participation Process
Improved governance	Increased trust in government	Democratic legitimacy	Has this process encouraged more people to vote in local elections?	According to the Supreme Committee for the parliamentary elections, the percentage of the vote in 2015 parliamentary election was 26.69 %, which is higher the election held in 2005 which the voter turnout of 23, and the highest provincial vote was Marsa Matrouh Governorate by 33.45 %.
		Trust	Has this process encouraged people to think the government is doing a good job?	The process had built trust on the government and encouraged the people to return unauthorized guns and weapons to the government, and to hand over the site to the military representatives.
		Active citizenship	Has this process encouraged people to engage in civic life?	The local people had asked the government to be part of the new project and they believe that the project will initiate different job opportunities for the youth.
		Accountability	Has this process given people more information so they can hold the government accountable for decisions?	The government had given the local people detailed information about the new NPP project and the new strategic plan of the North Coast region.
Social capital and social justice	Increased equality of access to decision making	Social cohesion	Has the process reached the representative sample of the local community?	The process had reached the people of El Dabba through the committee from all tribes and also had nominate an official spokesman.
		Social capital	Has the process enabled people to make new contacts / join new networks beyond their usual relationships?	The Bedouins of El Dabbahad their rules and social structure from long time and they are well organized.
		Social justice	Has this process helped increase equality of access to decision making or services?	The process had helped the local people to get access to the decision makers and this had shown in the different meetings with the Minister of Defense and the governor.
Improved quality of services / projects / programs	Quicker decisions by avoiding conflict	Public service improvement	Has this process saved money by making public services more reflective of local needs?	The process had saved a lot of money of the delay of the national nuclear program and had reflected the local people needs to the central government. The government had started in the development projects in the region such as: the technical school for nuclear power, new pavement of main road.
		Easier development of land and other facilities	Has the process helped to speed up the decisions about development proposals?	The process had taken some months and had made the land available for development and starting the nuclear power plant program in 2014.

Table 2 (Cont.)

Goals / Purpose	Indicators	Sub Indicators	Evaluation Criteria	Evaluation of El Dabba Public Participation Process
Capacity building and learning	Greater awareness and understanding of the issues and confidence and willingness to get involved in future	Increased participant skills, abilities, confidence	Has the process encouraged participants to go on to do other projects with more confidence?	The process had encouraged the people to be part of all development projects in the North Coast such as El Alamine New City.
		Increased staff skills	Has the process enabled staff to run new public participants activities?	The process had enabled the staff and the head of the tribes to go for new initiation such as gathering the illegal guns.
		Stronger communities	Has the process increased the strength of the community sectors?	The process had increased the strength of the community sectors specially the youth.
		Raised awareness	Do the participants have a better awareness / understanding of the issues involved as a result of the initiative?	The process had increased the awareness of the local people regarding the NPP program and also it increases the awareness in a national level.

Table 3: Measuring the Success of El Dabba Public Participation Process

Criteria	Indicators	Evaluation of El Dabba Public Participation Process
Clear purpose and objective	Has the process objective is well-defined?	The government had set a well-defined objective which to regain the site from the local people to start the nuclear program.
	Has the sponsoring agencies determine the appropriate level of public groups which can set the public's expectations accordingly?	According to the social and culture structure of the region the military had found that the Heads of Tribes are the most efficient stakeholders for the process.
	Has the sponsoring agencies have the power to promise the public and are willing to commit to and deliver?	The process had started by the local intelligence office in El Dabba with the approval from the Ministry of Defense and the cabinet of ministers.
Clear structure of the process	Has the structure of the process are cleared?	The process started with clear structure which include different meetings with the local intelligence office in El Dabba with the heads of tribes, followed by a meeting with the Minister of Defense and finally the signature of the agreement which had been endorsed by the cabinet of ministers.
Actual opportunity for influence	Has the process give the public an actual opportunity for influence?	The process had succeeded to change the government approach to deal with social problems by using a participatory approach instead of security and legal approach. Also, the process leads to equitable compensation for the local people and to build a new city for the people suffered from evocation of the land.
Commitment to the process	Has the process give the public an actual opportunity for influence?	The Egyptian military had different managers and staff who had committed to the full range of activities required to make public participation work and willing to obtain and consider public input in making the decision.
Inclusive and effective representation	Has the process reached out to representatives of the full range of relevant stakeholders?	<ul style="list-style-type: none"> The intelligence office had clear view of stakeholders in the region. They found that Bedouin constitute more than 90% of the population of the province, Five main tribes are living in Matrouh: the children of Ali's red, the children of Ali's white, Alsnta, Algomiaat, Alkotan, in addition to the herds and Berber tribes in Siwa, so the military office had entered the process with the heads of these tribes. The process had started with the different meetings and then it had a big public gathering for the announcement of the agreement with all representatives of local people.

Table 3 (Cont.)

Criteria	Indicators	Evaluation of El Dabba Public Participation Process
Complete transparency	Has the process reached a complete transparency?	<ul style="list-style-type: none"> The process had started with a sharing of easily understandable and accessible information to educate the public about the issues and options. The process was open to full media coverage.
Outcomes (benefits / impacts)	Has the process had impacts in the policy and people?	The process had changed the government approach for mega projects and had reached a greater public support for the nuclear power plant program.

CONCLUSION

The study assessed and evaluated the public participation conducted by the Egyptian government and it is showed that public participation contributes to better, implementable and sustainable decisions because the decision considers the needs and interests of all stakeholders. Also it is concluded that:

- Public participation will make a difference as long as there is opportunity for change in the policy.
- Strong public participation cannot be achieved without the participation of society’s various sectors specially youth and women.
- Media can play a big role in in supporting participatory planning process and can play a major role in strengthening citizen awareness.
- The Egyptian government can build on what has already been achieved in El Dabba case study in order to achieve successful public participation process among the future mega urban projects.
- The days of rational top-down modernist planning are over, and theorists and practitioners embrace the post-modern model of participatory planning where the public helps to guide land-use decisions and is leading to better plans and projects and more livable communities. Egypt’s planning process needs

to be truly participatory, it needs to reflect residents’ visions for their own cities.

- Decision-makers who fully understand stakeholder interests also become better communicators and build their capacity for managing difficult social problems.
- Effective public participation depends in part on a sponsor agency’s capability, willingness and ability to involve the public in the decision process.

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