DELIBERATIVE POLICY MODEL TO WATER
CONFLICT RESOLUTION FOR IMPROVING
AGRICULTURAL ENTREPRENEURS’ BUSINESS: CASE
STUDIES IN SUPHANBURI AND SAMUTPRAKARN
PROVINCE, THAILAND

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Abstract

This research studied the process of deliberative policy-making in environmental conflict resolution, concerning water resources in conflict areas in Thailand, and the construction of a deliberative policy model concerning water management, in order to seek for an efficient model to reduce conflicts regarding this issue. Moreover, following the research findings it was determined that stakeholders related to the deliberative model, particularly agricultural entrepreneurs, receive opportunities to set up sustainable income when water conflicts are resolved. The research reviews the relevant literature on deliberative policy concepts, conflict management and resolution concepts, and other case studies concerning deliberative models for conflict resolution relating to water management, and pursues desirable mutual agreements regarding water management in Thailand.

The areas of study in this research cover several administrative sections of the Royal Irrigation Department, operated under the Ministry of Agriculture and Cooperatives. These administrative sections have direct responsibilities related to water management, the deliberative policy-making processes, and are stakeholders of the policies. The two case studies chosen in this research consist of two irrigation project sites (Dan Chang district, Suphanburi province and Klong Dan District, Samutprakarn Province) due to their exceptional success in local water management. During these case studies it was found that the deliberative model drives the co-creation of agricultural entrepreneur business among the stakeholders. Moreover, this model can drive trust in open-space conditions, desires, and sustainable decision making, for building opportunities for improving incomes and quality of life. In conclusion, the deliberative policy

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model on water conflict conditions contributes alternative opportunities to agricultural entrepreneurs in conflict areas, to implant their engagement and build relationships for conflict resolution through peace talks and systematic change.

**Keywords:** Deliberative Policy; Water management; Agricultural entrepreneur business, Thailand

**INTRODUCTION**

The main focus of the research was to explore the effective deliberative model for water conflict resolution based on the investigation of two case studies in Thailand. These case studies were selected as best practice areas using a deliberative process for water conflict resolution. The research is a qualitative research.

**Case study 1: The Kraseaw Irrigation and Maintenance Project in Dan Chang district, Suphanburi province.** The project site covers an area of 130,000 Rai (208 square kilometers) in irrigation responsibility. The prominent source of water for almost all the people in the area is the Kraseaw stream which is used in regular life, as well as, for agricultural purposes. For decades, water management in the area has posed continuous and critical conflicts between state irrigation agencies and local people, and among the local people themselves. The Royal Irrigation Department sought a solution to the conflicts by applying a participatory process of the people in the Kraseaw Irrigation and Maintenance Project. The Kraseaw Irrigation and Maintenance Project has driven a deliberative process for water conflict resolution from a formal irrigation management committee, and groups of water users, including 278 groups of basic irrigation water users, and 9 irrigation water management groups. There were also 29 appointed volunteers. These groups of people and volunteers had clearly assigned tasks and responsibilities which could be delivered through real-life practices. The project became a successful endeavor with great benefit to the people. The result of the attempt is imposing; the management has been efficient, the participatory process of the people has been systematic and practical.

**Case Study 2 The Chonlahan Pichitra Irrigation and Maintenance Project in Klong Dan District, Samutprakarn Province.** This water management project is one of many projects that has utilized the method of “Kaem Ling” or a “water retention area” to retain fresh water in natural waterways and watercourses in the project area, venting water into the sea using the force of gravity and water-pumps. The underlying conflicts of this project come from the need to drain massive volumes of fresh water into the sea through a network of canals to prevent flooding on the outskirts of Eastern Bangkok. The extensive volume of fresh water...
drained through the watercourse, has hence, destroyed more than 100 Rai (0.16 square kilometers) of local cockle farms which rely on seawater in adjacent areas of sea, amounting to a cost of several million baht in damages. The Root cause of water conflict in the Chonlahan Pichitra Irrigation and Maintenance Project is that local people were not satisfied with the water draining of the Royal Irrigation Department that was unevenly distributed and inadequate in some areas. The problem stemmed from draining a great volume of fresh water into the sea, thus greatly affecting the living environment for cockles. This situation led to the death of cockles. Farmers demanded compensation from the Royal Irrigation Department and a resolution to the problem. There was a need to balance the salt levels to a suitable living level for cockles and other sea animals. The Royal Irrigation Department found that agricultural entrepreneurs were facing a severe problem. Therefore, the stakeholders in Chonlahan Pichitra were consequently involved in the deliberative process focusing on the water conflict and how to manage the cockle death crisis. The stakeholders made a consensus to release fresh water as the farmers requested. Later on, the situation was better and returned to a normal environment. This is a case study of success, showing the use of a deliberative policy process for water conflict resolution in Thailand, and for saving agricultural entrepreneurs at the sea mouth of Samutprakarn Province.

The deliberative model concept follows the Postmodern concept, and focuses on the process of differential discussions and talks. Even though participants may have different points of view, they are able to discuss these in an open and free space, exchanging ideas on public policy, and paving the way forward to new, more mutually agreeable policies, and thus reduced conflict. In many cases, public policy reflects the value of people and conveys their rights and voice, concerning many social issues, allowing their voice and rights to turn into political power. On the other hand, public policy is initiated in the public domain, which is a free space for diversity, in order to discuss and find the common goals, relationships, and a community bond.

Furthermore, not only is the process of deliberative talks a collection of similar interests and benefits from every sector, but deliberative talks also have a profound requisite to check aspects by hearing of differential viewpoints. Eventually, the hearing generates a public judgment. Public Judgment is different from Public Opinion as public opinions do not create a uniform idea, but rather superficial and transient information which is not reliable (Yankelovich, 1991).

Regarding the process of public policy, there is a relationship between the process of public policy and deliberative discussions. This has many aspects worth mentioning, especially regarding individual processes of public policy; for instance, in Denmark, there is a
process of public policy “Consensus Conferences organized by the Danish Board of Technology” which delivers results for government and political parties. The results of this process have vital influence for Denmark's government in making law. One outcome of the process regards genetic screening and biotechnology, whereby the process of public policy and deliberative discussions have agreed that there will be no allowance for food irradiation except dry species (Goodin, 2012).

Business management and deliberation are related as the deliberative process in water conflict areas will integrate information, interests, desires, and alternatives from key stakeholders through meeting, discussing, identifying criteria, and evaluating alternatives. The deliberation model will be of benefit in clarifying the desires of parties regarding the conflicts in each area, for developing ground rules to resolve the crisis, and for setting up alternative choices by peaceful means.

Deliberative Model energy reinforces co-management of stakeholders in conflict areas and supports power-sharing between agricultural businesspersons for maintaining a continuous problem-solving process (Carlsson and Bakes, 2005)

METHODOLOGY

In-depth interviews were conducted with 15 scholars regarding deliberative water management, and a citizen dialogue process was piloted with key stakeholders, including representatives from the two case study areas, for exploring significant indictors of the deliberative process. The research results demonstrated significant indicators in the deliberative model for conflict resolution in water management; these identified the importance of reasoning in the process, the importance of citizen accessibility, the importance of consensus, and the importance of the peace talk process.

The research applied qualitative research methods by using the MAXQDA program for analysis of qualitative research. The purpose of this analysis was to describe the phenomenon including the causes of conflict in each area, the deliberative process, and significant deliberative policy indicators in the findings of the studied research. Moreover, the analysis also assisted in recognizing how the Deliberative Model could improve income and business of agricultural entrepreneurs in that area. Purposive selection was used to determine the key informants for the two case studies. The resulting group of selected key informants worked methodically on the deliberative process (citizen dialogue). Specifically, these informants were representatives from governmental agencies responsible for policy making and policy implementation; representatives from the affected water conflict areas who could provide precise and consistent, in-depth information to assure the validity of data corresponding with
the research objectives; and agricultural entrepreneurs who were affected by negative impacts from the water management or negative effects from climate change and water crises.

Data Collection

The research consisted of qualitative analysis using a descriptive method to illustrate phenomena, processes, elements, and the consequences of a deliberative policy-making process in water management. The two main methods for collecting data were in-depth interviews with key informants and the arrangement of a citizen dialogue platform on two occasions, for the two case studies in Suphanburi Province and Samutprakarn Province. Additionally, the MAXQDA program was chosen to analyze data of the seven deliberative policy indicators, of 1) importance of reasoning, 2) common good perspectives of the people in that area, 3) Consensus 4) Binding 5) Citizen Access 6) Peace talk process and 7) process dynamics.

Data Analysis

Content Analysis was applied with exploration of documents and evidence, to describe and explicate the existing phenomena in regard to the deliberative water management. The qualitative data collected from interviews, observation, and citizen dialogues were analyzed with the process of typology and taxonomy while seeking their relationship. Following this, data from analysis were concluded in the course of content analysis to summarize the study.

The ethics of this research were confirmed through submission of the structured interview form to the Center of Ethical Reinforcement for Human Research at Mahidol University for approval of the ethics in human research by the Institutional Review Board (IRB).

Conceptual Framework

![Conceptual Framework Model]

**Figure 1: Conceptual Framework Model**
RESULTS

Research results achieved the two research objectives of seeking an efficient model to reduce conflicts in the issue, and exploring a deliberative model which can drive resolution of water conflicts and provide opportunities for agricultural entrepreneurs in conflict areas to gain sustainable income after positioning the deliberative process or deliberative model in each area.

Result of Case study 1: The Kraseaw Irrigation and Maintenance Project in Dan Chang District, Suphanburi Province. The reason for conflict in irrigation and water maintenance management 1) the local users of irrigation have no rights or opportunities to participate in making decisions concerning water management. When there is inadequate water, local people make demands to the local government to release water for their agricultural fields. This can sometimes cause conflicts in water use among locals. 2) local politicians intervene in the water management leading to conflicts among local farmers. 3) local people have a lack of public conscience, ignoring the sense of belonging, and lacking understanding in the concept of water management, but incorporating maintenance, thus leading to the demonstration of conflict between the government and farmers, and conflict among farmers.

The main problem of the Joint Management Committee for Irrigation (JMC) is that there are no rules between the Joint Management Committee for Irrigation and irrigation officers. For example, an irrigation officer’s job is to work on local irrigation, but it has been determined that if there is no enforcement of irrigation officers, there will be no attempts to work on water management.

At its beginning, the Kraseaw Irrigation and Maintenance Project was designed as a participatory irrigation management (PIM) and was divided into three stages of management as follows:

Level 1: The project stage: run by the Kraseaw irrigation committee which had responsibility to line manage from the structure of dam down to the water pipes.

Level 2: Tunnel of water management stage: here nine executive groups managed the water tunnel in order to transfer water to farmers.

Level 3: Water management in rice field stage: each of the members’ fields take part in managing the irrigation system, with a leader to run the system, and 278 minor groups that know the direct root of the problem and who have access to the damaged fields.

The deliberative committee on water management took place following the participatory irrigation management (PIM) in the first stage of the Kraseaw Irrigation and Maintenance Project. Many representatives of the committee were leaders who explicitly showed their power and voice regarding water management. For instance, they agreed to determine the areas for
water transfer. They explored requests from farmers, relating to water use, and worked together on a strategic plan for water management. The Kraseaw Irrigation and Maintenance Project in Suphanburi Province is the role model of deliberative participation between the government and the people. Particularly, the enforcement of the Royal Irrigation Department has connected with the people through the Joint Management Committee for Irrigation (JMC).

The data results express the most suitable model of water management for Kraseaw Irrigation and Maintenance in Suphanburi, showing that the **significance of reasoning** comes in the first place, followed by **consensus and citizen access** respectively.

The result of the case study on the Kraseaw Irrigation and Maintenance Project in Suphanburi underlines the importance of reasoning which results in solutions to water management problems that are derived from the discussion of the Joint Management Committee for Irrigation (JMC) and their consensus on the issue. For example, when drought occurs, the JMC asks for a consensus from the committee on the amount of water to release for public use. Therefore, every stakeholder gathers to give their voice and to discuss the facts and data from the Royal Irrigation Department regarding a resolution to the water

**Figure 2:** Model Showing the Analysis of Deliberative Public Policy indicators Kraseaw Water Management in Suphanburi Province
crisis in each period. An expert from the Kraseaw case mentioned that “We focus on the public consumption of the water. Therefore, in a case of water crisis, we are willing to release the water no matter how much water we use. If the Provincial Waterworks Authority of Dan Chang requires it and we agree on the reason, we will do it. However, if the reason for the water request is not valid, we must object to it. Our logic is that they should make the most of the water. It is also the main criteria of water management”.

**Result of Case Study 2: The Chonlahan Pichitra Irrigation and Maintenance Project in Klong Dan District, Samutprakarn Province.**

This water management project is one of many projects that have utilized the method of “Kaem Ling” or a “water retention area” to retain fresh water in natural waterways and watercourses in the project area, venting the water into the sea using the force of gravity or water-pumps. The underlying conflicts of this project come from the need to drain massive volumes of fresh water into the sea through a network of canals to prevent flooding on the outskirts of Eastern Bangkok. The extensive volume of fresh water drained through the watercourse, hence, destroyed more than 100 Rai (0.16 square kilometres) of local cockle farms which rely on seawater in areas adjacent to the sea with a cost of several million baht in damages.

The Chonlahan Pichitra Irrigation and Maintenance Project and its director have played a significant part in encouraging the peoples’ participation in a deliberative process which led to dialog and conflict resolution. After having stakeholders voice their concerns in the deliberative process regarding water management, the state irrigation agency chose to pursue an alternative option, specifically it was decided that fresh water would be drained via alternative routes such as Bang Pa Kong River, Prachin River and Chao Phraya River, while pumping stations would drain less fresh water through Samutprakarn’s watercourses. The alternative strategies of the state irrigation agency proved to be favorable among stakeholders, and hence, became mutual agreements regarding water management. The root cause of water conflict in the Chonlahan Pichitra Irrigation and Maintenance Project, Samutprakarn Province is that local people were not satisfied with the water draining of the Royal Irrigation Department as it was unequal and inadequate in some areas. Particularly, during the rainy seasons of 2003-2007, the project received complaints from many sea cockle farmers. The problem stemmed from draining too great a volume of fresh water to the sea, negatively affecting the living environment for the cockles. This led to the death of cockles. Farmers demanded compensation from the Royal Irrigation Department and plans were made to fix this problem. There was a need to balance the saltiness of the environment to maintain suitable living conditions for scallops and other sea animals. The Royal Irrigation Department found that
many farmers were facing a severe problem. Therefore, it agreed to release fresh water as farmers requested. Later on, the situation was better and returned to a normal environment.

Key Success Factors of the Deliberative Policy Model for the Chonlaharn Pichitra Irrigation and Maintenance Project, Samutprakarn Province include initiation by the Royal Irrigation Department, following complaints by locals regarding the management of the Royal Irrigation Department, its successful application of a deliberative process following a research based approach. The data analysis shows the most significant factors for the case study of the Chonlaharn Pichitra Irrigation and Maintenance Project in Klong Dan District, Samutprakarn Province; specifically, these include peace talks, public management, and reasoning, respectively.

The most important feature that contributed to the success of the implementation of the water management policy in Chonlaharn Pichitra Irrigation and Maintenance Project in KlongDan District, Samutprakarn Province, was the peace talks. This result is different from the Kraseaw Irrigation and Maintenance Project, due to the fact from the Kraseaw Irrigation and Maintenance Project, due to the fact

**Figure 3:** Model Showing the Analysis of Deliberative Public Policy Indicators Chonlaharn Pichitra Irrigation and Maintenance Project, Samutprakarn Province
that there is no committee group directly responsible for water management. As a result, the direct collaboration between the government authorities and the people was initiated from the level of the peace talks, which reduced the processes in setting up the solution for the problem. The peace talk process tends to be more informal, rather than an official collaborative procedure between government officers and citizens through reasoning and working together on water conflict resolution. This corresponds to the way of deliberative policy making, in that a deliberative method drives the citizens to act logically to solve problems or to apply a Public Act. In the Chonlaharn Pichitra Irrigation and Maintenance Project case, a key informant informed that peace talks are the usual means to dissolve conflict as mentioned in the statement “... in Chonlaharn Pichitra, we’ve solved problems with talks between government officers and the people. We’ve had heart-to-heart talks since 2008. We’ve supervised the water problems together until now”

Deliberative Policy making can mobilize trust business models in each area because peace talk forums can reduce marketing pressure from key partners in agricultural business. Furthermore, the deliberative policy forum generates new ideas for agricultural business such as how to make effective use of water resources for business and how to create marketing plans for our business in each year. From the research results of the two case studies, it was found that deliberative policy making in a water conflict for improving agricultural entrepreneurs’ business should be modelled as follows:

![Figure 4: Model shows the analysis of the deliberative policy Model in Kraseaw Water Management, Suphanburi Province](image)

Interconnected deliberation between stakeholders for resolving conflicts by centralised experts and dispersed individuals

Think tanks for resolution by business groups, farmers and the public sector

Empowered Space for sustainable decision making
DISCUSSION

The discussion and conclusion are presented in three sections according to the objectives of the research:

Regarding the first objective of studying the deliberative policy process in water management in order to reduce conflicts in the two case study areas, it is noted that the deliberative policy is influenced by deliberative democracy; therefore, it focuses on a process by which people in the society receive equal opportunities to speak out and listen to others. The process is defined by many terms: political conversation, public discussion or public opinion. All these terms underline a process whereby citizens have a chance to participate in political discussion in order to create better understanding among each other (Smith and Wales, 2000: 53). The forum’s freedom of expression and the public deliberation of key business partners is very important for improving the business success of agricultural entrepreneurs as it can create key business activities for the development of these businesses.

An important part of the deliberative forum in market dialogue is mentioned by Elster (1998:12), who states that there are simple arguments which should be stated publicly. In a political debate it is pragmatically impossible to argue that a given solution should be chosen just because it is good for oneself; in public debate one must pay lip service to the common good.

Consequently, deliberative policy is open to all stakeholders, allowing them to intervene in the entire policy process, policy making, policy implementation, and policy evaluation, by providing a free space for policy discussion and public decision making by representatives to lead to an acceptable conclusion and suggestions for relevant future policies. In Thailand, the case of deliberative policy making was once applied to healthcare policy. The process focused on deliberative talks to seek out a consensus and mutual agreement from the people, called “Public Consultation” due to the listening of public voices from all the sectors. Nonetheless, public consultation, such as the public hearing of a draft of the National Health Security Bill, could not succeed at that time due to some limitations, especially time constraints. The policy cycle starts from policy making, followed by policy implementation, and finally policy evaluation. The lack of policy consultation in the first stage of the policy cycle may result in the failure of the public hearing process.

Considering the importance of the deliberative method in hearing the opinions of all stakeholders, this is a critical part of the development of policies and regulations, laws and enactments. Otherwise, the government as a policy maker and policy practitioner, must have adequate knowledge on economic, social and environmental problems. Additionally, the deliberative process requires information and feedback
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from stakeholders, in order to assure that the regulations issued by the government contribute positively to the society as a whole. As a result, the design of the deliberative talk helps authorities to forecast who the stakeholders are, how the policy will impact them, and finally how to manage a deliberative talk in order to make a more effective policy that will impact positively on the stakeholders.

However, deliberative policy takes time to succeed. When making a deliberative policy in agricultural business, the key stakeholders will have a clearer picture with reference to their business. The deliberative forum will therefore create better understanding between key stakeholders through main questions, for example, what are the major water disputes about and how can we resolve them by peaceful means?

According to Smith and Wales (2000: 58), and Weeks (2000:363), another significant factor of the deliberative policy that reflects the true civic participation is that people should participate in the Agenda Setting of the deliberative talk; this should not be done by a sole governmental body or single authority. This prevents bias and the likelihood of the talks being predominated by one particular viewpoint. Deliberative policy highlights collaboration on strategic planning, finding a solution and implementing a plan, and decision making regarding possible choices.

During the agenda setting process, members of the talk mutually impose the scope and agenda they wish to discuss. For the strategic plans, members introduce their solutions to the problems or alternative policies, in the meeting. Finally, they select the most suitable choice from the discussion and deliberative talk. In each stage of the deliberative talk, participants should use information as a tool in decision making. This information may be provided in the form of newsletters or leaflets to all members of the community. In addition, the community should arrange a workshop to allow people in the community to exercise their power in the collaboration.

Regarding the Kraseaw Irrigation and Maintenance Project case study on the deliberative model for conflict resolution in water management, a number of findings were made.

For the Policy Formation stage, the case study displays bottom to top management of the deliberative process, with no problems or obstacles occurring in this stage.

In the Policy Adoption stage, the Joint Management Committee for Irrigation (JMC) was appointed as a legitimate stakeholder by the local people. Even though, this is not a legal entity, this was not important to the local people. The participative process tended to be more significant.

In the Policy Implementation stage, the deliberative talks occurred from the grass roots level up to top management level; that is, from the farmers to the JMC. Continuous two-way communication is necessary as it encourages deliberative talks and informal discussion. In the Policy
Evaluation stage, the case study reflected on the evaluation of the effectiveness of the deliberative policy in water management on the Ordinary and Extraordinary General Meeting of the JMC committee. The obstacles of the deliberative policy identified in the policy evaluation process usually involve the governmental authorities, rather than the people.

During the Policy Revision stage, there were no problems or obstacles identified as the deliberative policy had enhanced the water management. Thus, there was no need to issue new alternatives to support the water crisis.

Furthermore, the discussion of the Chonlahan Pichitra Irrigation and Maintenance Project case study on a deliberative model for conflict resolution in water management, also presents several findings.

For the Policy Formation stage, the case study shows the deliberative process in various models, such as the deliberative talks of the top management of the Royal Irrigation Department and the talks of local people. The policy formation may confront political intervention. In the Policy Adoption stage, the case study introduces policy adoption which comes from the support of government agencies and the academic sector in providing resources. The appointment of the committee to manage the water conflicts was not applied to the case study. In the Policy Implementation stage, the deliberative process occurred thoroughly in every level; that is, from the local level to the ministry level. Two-way communication was also necessary in this case study, as it naturally encourages deliberative talks and informal discussion. In the Policy Evaluation stage, the case study shares the same criteria of the previous case. The evaluation of the effectiveness of the deliberative policy in water management is shown in the Ordinary and Extraordinary General Meeting of the JMC committee. The governmental authorities are prone to generate more obstacles to the deliberative policy, during the policy evaluation process, than the people sector. In the Policy Revision stage, there was further deliberative discussion on developing or improving the past water management.

CONCLUSION

In conclusion, the implementation model of the deliberative policy model for conflict resolution in water management is neither a horizontal implementation model, nor a rigid top-down model. It changes the definition of public policy from “Government Declaration” to “Direction and expectations of the community or society”, of which the ideology comes from the self-determination of the people in the community.

The public policy and implementation process are based on the deliberative model or the discussion of the people in the society regarding their lives and routines,
with the expectation that they can improve society and life. The mechanics is a learning process in public areas rather than a policy making by professionals, or a civic drive to impose any policies or policy implementation. The deliberative policy originates with an aim to give a better public life to the people in the society and to generate development in the society through networking such as in the case of a draft of the National Health Security Bill in Thailand. The deliberative policy is a self-determined policy and puts pressure on the government to support the power of the community in self-management.

The Deliberative Public Policy Model was created following New Public Management. It focuses on the process of discussions and talks on policy decision making which are vital and have impact on many stakeholders. This model is relevant to the business models of stakeholders, their desires, and interests. The outcome of a deliberative public policy must be meaningful and drive the society to great change. The process of change may be derived in many ways; for instance, the demands of the people for planning and development in a government project, or an enforcement group which stimulates structural change.

Key Success Factors of the Deliberative Policy Model for Improving Agricultural Entrepreneurs are:

1) Stakeholders play their roles and truly respond to the needs of local people, particularly local stakeholders, in order to provide knowledge and transfer skills in water management onto water users and stakeholders. They respond to water management issues, and also initiate minor groups to open space for people to take part.

2) There is a hearing process, and participation, in order to critically analyze and dissolve problems. This process leads to the impression and satisfaction for people and stakeholders.

3) The main problem of participation in water management in Thailand is that people always follow the mandate of the government and the authority to monitor the area. There is a lack of unity among the people and few representatives to participate in water management. In addition, the typical pattern on water management in Thailand is that a supreme power manages water, which means the people are totally dependent on the government. There are only a few witnesses to participatory water management. There are only some areas that initiate groups which allow the people to directly participate in their own community. However, the stream of citizen power is rising. There tend to be active citizens who respond to challenges in the income of agricultural entrepreneurs in conflict areas.

REFERENCE

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