

Backgrounds and Planned Activities of Locally Based Coastal Resource Management

TOWARD DEVELOPMENT OF PARTICIPATORY COASTAL RESOURCE MANAGEMENT IN PATHEW DISTRICT, CHUMPORN PROVINCE

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I. Objectives of the Paper

1. This paper describes the on-going process of the SEAFDEC/Training Department (TD) and Department of Fisheries in Thailand (DOF) collaborative project, which is entitled "Locally Based Coastal Resource Management, Pathew District, Chumporn Province (LBCRM-PD)". Under the title of this paper are two main headings.

2. Firstly, the background of this collaborative project will be discussed. The LBCRM-PD has been implemented under a SEAFDEC's strategic plan scheme of the so-called Fishing Consultative Group (FCG). Whereas, the DOF has reached a turning point at which its strategic approach toward community-based fisheries management (CBFM) should be extended over the whole country along the coast line. Secondly, the outlines and content of the project proposal will briefly be described. This paper leads to a deeper discussion on the activities and problems of the project activities, and on a future plan of the LBCRM-PD.

II. Background of the Project: Toward LBCRM-PD

1. FCG Scheme and Collaborative Project: a SEAFDEC's Viewpoint

3. The FCG scheme is a strategy for finding a solution to common problems that occur widely in the SEAFDEC member countries. SEAFDEC has developed the regionalization of the Code of Conduct for Responsible Fisheries an activity that has four phases, namely fisheries operations, aquaculture development, fisheries management, and fisheries post-harvesting. Under the FCG scheme, a lead department of SEAFDEC has also implemented a particular type of pilot project in collaboration with host countries.

4. With reference to coastal resource management, Thailand (DOF) acts as the lead country among the SEAFDEC member countries and the TD will be the lead implementing department of SEAFDEC. The DOF and TD agreed to put together a collaborative pilot project in this field. Technologies, knowledge and lessons learned through the implementation of this project will be transferred to other SEAFDEC member countries through its information mechanism. This may be useful to help the member countries to review their own policies and steer new directions in coastal fisheries resource management. Establishing sustainable coastal resource management is an urgent need in the ASEAN region. It is also expected that the member countries that have experience in the field of coastal resource management projects will give practical and appropriate advice to the TD-DOF collaborative project.

2. DOF's Joint with the Royal Project

5. The DOF decided to conduct a coastal fisheries management project in Chumporn Province. There were several alternative sites in the province, but finally the DOF chose Tambol Pakklong, Pathew

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District, as the site. This is mainly because the Royal Project Council planned to implement comprehensive development projects there in three different fields, agriculture, forestry and fisheries.

6. The DOF became the leading department in the fisheries field. Under the Marine Resource Rehabilitation Program implemented by the DOF (Marine Fisheries Division), a project was planned to establish a workable framework of sustainable fisheries resource management in the seas in front of Tambol Pakklong. In addition, mangrove reforestation activity would be a task of the Royal Forestry Department (RFD), Ministry of Agriculture and Co-operatives (MAC).

3. Planned as a Fishing Rights Project

7. Before the TD joined, the DOF had initiated a project with the title "Establishment of Fishing Rights in Coastal Fisheries", modeled on a challenging project that had been conducted in Ban Saphan and Ban Saphan Noi Districts, Prachuab Khiri Khan Province. This project would have focused on the introduction of a particular legal framework, which was close to territorial use rights in fisheries (TURFs). In actuality, however, this could be started by banning some destructive types of fishing gear in a defined zone, like trawls and luring light purse seines using less than 2.5 mesh size.

8. In line with the concept of fishing rights in the same way, as did the DOF in Prachuab Khiri Khan Province, it began to arrange a project proposal. This proposed to introduce the idea of CBFM at the project site and to create practical management methods and encourage the participatory approach. This would include a series of activities and investments that were conventional comprehensive methods adopted for the development of fishing community and small-scale fisheries.

9. As Aiumrod, Suanrattanachai, and Petchkamnerd, 2003, describe the process of setting up a demarcated zone, fishers, stakeholders and DOF's officials agreed to mark off Zone I in the sea in front of the areas covering Baan Numpu (Moobaan No.5) and Baan Thumthong (Moobaan No.3) (Aiumrod, Suanrattanachai, and Petchkamnerd, 2003). They also agreed to expand the demarcated zone toward the south of Tambol Pakklong. The new zone to be set up would be from Baan Thumtong (Moobaan No.3) to Baan Tungmaha (Moobaan No.6), with coverage of 40 square km. The great majority of fishers and stakeholders voted to agree that all fishers stop using trawls, push nets, cockle cast nets and anchovy fishing at night within the new demarcated zone (Zone II). According to the people's demand, the DOF decided to proclaim the prohibition of using these fishing gears within the Zones I and II. This was the start point of the project. The Chumporn Provincial Office of Fisheries slightly revised the boundaries of the demarcated areas so that fisheries clearly recognize the areas, by drawing straight lines between points.

10. However, at last, the project proposal does not advocate any activity related to the introduction of exclusive fishing rights in Zones I and II. There would be little possibility to introduce exclusive use rights under the present framework of the fisheries laws and regulations. This resulted from a long discussion on the framework of the project.

4. As A Small-scale Fisheries Development Program

11. The Cabinet approved the DOF's initial purpose, together with the allocation of a budget. The installation of artificial reefs was given the first priority in terms of budget allocation with fishing gear improvement being the second priority. The DOF had a plan to conduct a survey on resources, environment and the socio-economic aspects, releasing fingerlings, fishing gear development and organizing groups. As far as the allocation of budget and targeted activities were concerned, the project proposal was nothing but a Small-scale Fisheries Development Scheme (SFDS) ².

12. The DOF was ready to transfer the technology of marine aquaculture with the provision of

materials and fingerlings. The target species could be sea bass, grouper, red snapper etc. Promotion of marine aquaculture would be a part of the process of creating alternative job opportunities. Extending shell culture was planned as a component of another job-creation-oriented activity. These processes might offer additional income sources, and reduce the present amount of catch effort put into adjacent fishing grounds.

5. Lessons from the Past Experiences

13. The construction of fisheries-related infrastructures like artificial reefs, the provision of fishing techniques, the establishment of local fishers' groups, the promotion of marine fish culture and shellfish culture are conventional ways the DOF has adopted so far. A number of coastal communities in many parts of the coastal provinces have practiced such conventional programs. On the other hand, the project would apply the CBFM approach in the same way, as did other pilot projects.

14. The DOF implemented various patterns of CBFM projects, which designed to enhance awareness building of the resource environment, discourage the use of destructive fishing gear and encourage self-regulatory fishing activities. Preparation and provision of educational and training courses became an essential part of these CBFM projects. However, there has been no attempt made to build a legal framework that allows local communities and fishers to manage their own territories.

15. In the Phannga Bay, in 1996, the DOF and the Bay Of Bengal Program (BOBP) started collaborative projects focusing on the enhancement of awareness building for responsible fishing. Supported by the DOF's officers and NGOs, local fishers and stakeholders joined training programs and exchanged information on fisheries management (Suanrattanachai, 2001). They actively discussed some topics like banning trawls and push net within 3 km, adoption of selective fishing gears, feeding of crab in stock cages, mangrove reforestation and so on. The projects successfully aroused the fishers' awareness about the sustainable use of coastal resources.

16. It can be said, because of the religious and geographic conditions in the Phannga Bay, the cohesion and uniformity among local people were very strong, which led to their active participation in the DOF-BOBP projects. Experience on the participation and operation of community-based activities has spawned several cooperative economic activities at the project sites. Mangrove reforestation made rapid progress, increasingly attracting foreign tourists to join eco-tourism and environmental friendly tourism at the project sites (Yamao, 2001). Those fishers involved in the operation of passenger boats have established their own association that ensures lucrative boat fares and advertisements. "Central Markets" managed by fishers' groups have appeared in three Moobaans, so that fishers can sell mainly shrimp at much higher prices than before. Three small markets rotate shrimp collection and auction. Local fish dealers usually buy shrimp at auction.

17. Despite many successes in cooperative businesses, there were some problems to be solved. Firstly, this project originally intended to create awareness building on the sustainable use of coastal resources. Secondly, very few legal frameworks have existed, which are supportive to the participatory approaches. Thirdly, illegal fishing conducted by trawls and push net operators still damages coastal resources, although small-scale fishers at the project sites continue to demand control and supervision by the DOF.

6. Challenging Approach to "Fishing Rights"

18. The Fishing Right Pilot Project (FRPP) in Ban Saphan and Ban Saphan Noi Districts may be the only full-scale projects based on the concept of CBFM. Even at present, this project is considered as the most challenging among the pilot projects in Thailand.

19. There are seven fishers groups in the two districts. The DOF guided the target people to establish



groups. Their main function is the operation of micro financing, relying on the DOF's subsidies. The groups also function as a unit of a management body for the demarcated zones defined by the DOF. The FRPP could start by banning some destructive fishing gear, like trawls and luring light purse seine using less than 2.5 mesh size in the zones. This is because the concept of fishing rights was against the National Constitution and the Fisheries Act.³ The fishers' groups should enhance their member's awareness of responsible fishing and take charge of obtaining a consensus among them at Moobaan (communities) and district levels. Coordination and adjustment between different groups of fishing gear are an important task for the groups.

20. The DOF's project office often holds public hearings and gives necessary information on the management procedures of the demarcated zones. Fishers and stakeholders are encouraged to become involved in the management of the zones and to monitor illegal fishing inside the zones. Unfortunately, before the FRPP started, the concept of fishing rights had misled fishers and stakeholders. They feared a great economic disadvantage resulting from the establishment of territorial use right in fisheries (TURFs). They thought that their fishing activities would be confined within the demarcated zones, excluding them from outside their own territories (Terao, Anuchiracheeva and Ruangsivakul, 2000).

21. The FRPP is a pioneer in coastal fisheries management. Local small-scale fishers are encouraged to share part of responsibility for regulating their own territory. They actually have a higher priority in claiming utilization of fisheries resources in the demarcated zones. However, "fishing rights" has caused confusion and amplified fishers distrust of the purpose of this project. Moreover, the enforcement of fisheries laws and provincial ordinances is still very weak. The local fishers are disappointed with the weak institutional and legal support given to the FRPP. Both small-scale and commercial fishers find great difficulty in adjusting conflicts between them.

22. Without a consensus between local fishers, and between local and non-local fishers, any pilot project would hardly succeed in introducing fishing rights. Without appropriate legal support enforcing laws and regulations, any pilot project could rarely survive. These two lessons are the most important ones, leading to the success of a pilot project for coastal resource management.

7. Locally Based Coastal Resource Management Stands between Both

23. The LBCRM is not a new approach, and stands mid-way between the DOF-BOBP collaborative projects in Phannga Bay and the FRPP in Prachuap Khiri Khan Province. The LBCRM adopts the community-based participatory approach, as long as the objectives are concerned. This encourages the people to join in a decision making process of coastal fisheries management at community level, by providing a wide variety of opportunities for training and education programs.

24. On the other side, the LBCRM is modeled on the FRPP, as regards setting up a demarcated fishing zone in which particular types of fishing gear are prohibited. The main purpose of the LBCRM is to search for an effective way in which to make rules on the sustainable use of coastal fisheries resources in the demarcated zones. It will propose an acceptable framework that can regulate and manage the people's fishing operations on a formal basis, through experiments and practices.

25. However, the LBCRM differs in several ways from the FRPP. Any attempt to introduce whatever type of fishing rights will not take place, as long as the Thai government does not amend the present fisheries act and regulations. A fishing rights project seems very challenging, but is no doubt reckless at this time. Without any tradition and understanding among the people, exclusive territorial use within a defined area would hardly be adopted at the Tambol Pakklong project site.⁴ Another difference is that the LBCRM pays more attention to the role and function of local government than the FRPP. New trends in the decentralization program that has been planned and conducted by the Thai government make the LBCRM to become a practical and acceptable system of coastal resource management.

26. As a whole, the LBCRM picks up some substantial essences from both earlier pilot projects.

III. Outlines of the Project

1. Framework and Objectives

27. The project purpose is to establish a viable model and workable framework of locally based management through encouraging active participation of fishers and resource users, supported by the creation of alternative job opportunities in coastal fishing communities. The LBCRM-PD is modeled on the concept of CBFM and CM, but more specifying how to establish networks of primary management units at sub-district level.

28. The project has three overall objectives: first is the establishment of sustainable coastal resource management at local level; second is the rehabilitation of coastal resources; and third is the alleviation of poverty in coastal fishing communities.

29. At least four results will be expected from the implementation of this project: 1) locally based management in Pathew District works, 2) people's production and living conditions improve, 3) local people and organizations enhance their capability in community development, 4) practices are converted into the DOF's coastal resource management. The DOF and the TD recognize that an integrated approach should be prepared to for the LBCRM-PD, because the creation of alternative job opportunities inside and outside fishing communities helps to reduce fishing catch effort and pressure on resources.

2. The Project Activity and Its Core

30. The project has six main activities, i.e., 1) Base line survey (Activity I), 2) Extend and encourage LBCRM (Activity II), 3) Encourage local business (Activity III), 4) Enhance human resource capability and participation (Activity IV), 5) Develop extension methodologies and strengthening the extension system (Activity V), 6) Rehabilitate and enhance coastal resources (Activity VI). As *Chart 1* shows, Activity II and Activity III are at the core of the project activities.

1) Base line survey (Activity I)

The project conducts surveys to obtain the necessary information and data for the establishment of sustainable coastal resource management and community development, with the participation of resource users and stakeholders. Survey fields are mainly the oceanography and environmental aspects, fishing techniques, and socio-economic aspects.

2) Encourage and extend locally based coastal resource management (Activity II)

The project encourages responsible fishing and aquaculture operations and participation in the management of the demarcated coastal zones. It enhances the managerial ability of community-based management groups, their networks and Pakklong Sub-District Organization (Ao.Bo.To).

3) Encourage local businesses (Activity III)

The project assists the people to increase their income by improving technologies of handling, marketing and processing fisheries products, and by creating job opportunities outside capture fisheries. Any activities categorized into the Activity III will support the "One Tambol (Village), One Product" scheme that Thai government has stimulated so far. In collaboration with Ao.Bo.To and other local agencies, the project plans to give necessary technology and marketing information to the targeted people.



4) **Enhance human resource capability and participation (Activity IV)**

Participatory training and educational courses will be planned and prepared. Preparation of the courses should be considered on the purpose and practice of Activities II and III.

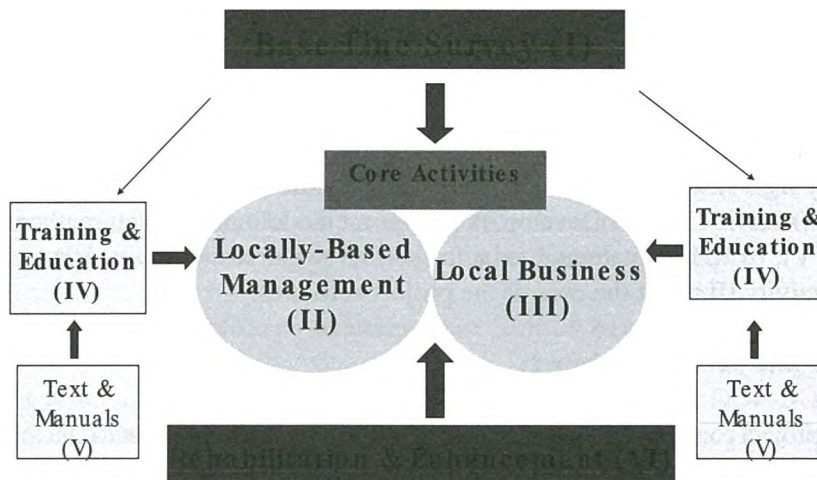
5) **Develop extension methodologies and strengthen the extension system (Activity V)**

Extension services are required to develop their technologies and methodologies. Text, manuals and any visual methods through experiments on extension and training activities should be prepared and developed.

6) **Rehabilitate and enhance coastal resource (Activity VI)**

This activity is planned and implemented by the DOF. The DOF has allocated a certain amount of budget for the installation of artificial reefs (ARs) around the demarcated coastal zones. Setting up sustainable management and utilization of resources around the areas of deployed ARs will be target activities grouped into the Activity II. Releasing fingerings is also planned.

Chart 1 Six Project Components



3. **Two Phases of the Project**

31. The project has two development phases. The first phase focuses mainly on the activities of a base line survey and training matters with a campaign for enhancing awareness building. Rehabilitation activities will be started in the first phase with a plan for the installation of artificial reefs. During the second phase, the project concentrates on the establishment and functioning of a management framework and the promotion of alternative job opportunities.

32. In the first phase, we plan to have a workshop in collaboration with fishers, community leaders, Ao.Bo.To council members, and local government agencies. The main purposes of this workshop are to restore the results of scientific analysis by the base line survey to them, and to make the people re-focus on their own demands for the project and re-design project activities.

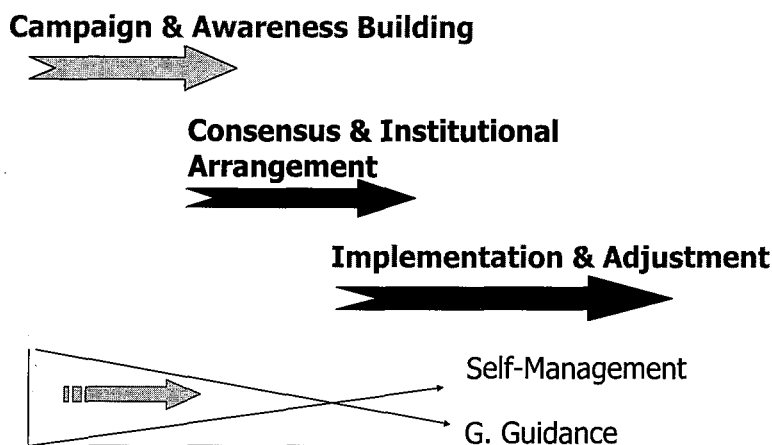
33. In the transitional stage from the first to the second phase, the mid-term evaluation investigates the

degree of achievement of outputs in the project's activities. It indicates five evaluation criteria at least, efficiency, effectiveness, impact, relevance, and sustainability. The outcomes of the project and the project design will be compared according to the figures of the evaluation criteria. Monitoring (ongoing basis) during the implementing stage is obviously important. The project staffs should check the project operation and management process on a regular basis with the appropriate figures prepared.

4. Sequence Plan for LBCRM

34. The project has a sequence plan for extending the LBCRM framework (*Chart 2* LBCRM: Sequence Plan for Establishment). Three development stages are prepared. In the first stage, the main activities are the expansion of the comprehensive coastal management campaign and providing programs of education and training. In the second stage, resource users and stakeholders are encouraged to develop their own regulating activities within the legal framework currently prevailing. Ao.Bo.To and community-based management units (CBMUs) will achieve a consensus on self-regulatory resource utilization. Institutional arrangements should be strengthened at this stage. A further development of self-regulatory activities with a monitoring function will be in the third stage. By the end of the project, LBCRM should work well.

Chart 2 LBCRM: Sequence Plan for Establishment



35. Given different geographical, resource environment, and socio-economic surroundings, there will be many variations of LBCRM framework through the country. The project proposal does not describe any adequate model of locally based management, which will be created through experiments in this project. This is still a tentative plan for LBCRM. It consists of several CBMUs, their networks and Ao.Bo.To. The CBMUs are primary groups established by fishers and stakeholders in communities (Moobaans), whose membership the majority participate in.

36. One highlight of this project is that fishers, stakeholders and local government agencies will cooperate together to organize and manage CBMUs and their networks. The CBMUs are expected to function as representative, consensus, suggestion, implementation, enforcement and adjustment. This should be a long process. Focus will be on the roles of representative and consensus at an earlier stage of the project. The local NGOs presently existing may enhance the people's concern on coastal resource management and stimulate cooperative activities, prior to establishing CBMUs. Their networks will arrange and conduct self-regulating activities, while resolving conflicts between communities at Sub-district level. Such a network is a core institution built into the Ao.Bo.To system, and acts as a representative of coastal resource users.



5. Implementing Agencies

37. As the project plan describes, the major implementing agencies are the DOF and the TD (*Chart 3 Organization Chart of the Project*). Fishers, resource users, people's groups and Ao.Bo.To will join on full partnership with these agencies. In actual implementation stage, staff members from the CMFRDEC have major roles in both research and training fields, since it consists of the Chumporn Raw Fisheries Materials Inspection Unit and the Fishermen Training Center. The staffs are to guide fishers and their family to manage community development programs, together with local government offices of fisheries.

Chart 3 Organization Chart of the Project



38. The Provincial and District Offices of Fisheries become another core agency, on generating a LBCRM and developing it in collaborating with the people. Whatever the people's agreement the LBCRM is based upon, it must be under the legitimate framework of the present fisheries act and regulations (and not being opposed to any article of the National Constitution). The LBCRM stands upon the course of delegating the authority from such local bureaucratic organs to Ao.Bo.To and people's groups. These organs take charge of supervising the management activities of LBCRM, while adjusting conflicts with outside-fishers and resource users in the demarcated zones.

39. The Prachuab Khiri Khan and Chumporn Coastal Aquaculture Centers transfer adequate technology and knowledge of fish cage and shellfish culture. The Marine Shrimp Research & Development Institute gives scientific advice on aquaculture activity and its environmental surroundings. Besides the agencies of the DOF officially approved to join the project, the IC would like to request expertise from other agencies and divisions of the DOF whenever necessary.

40. The Chumporn Provincial Office holds the responsibility for coordination with other components of the Royal Project in Pathew. This office may provide necessary information on the implication of community development and people's welfare.

41. The Pakklong Ao.Bo.To participates in the membership of the IC as a representative of the people at the project site for the time being. The Ao.Bo.To and representatives of the people's organizations involved will increase their participation and shared tasks at a later stage, and at the final stage of the project they will have full responsibility for planning and implementation.

IV. For Future Development of Policy for Coastal Fisheries Resource Management

42. Coastal fisheries management should build a well-mechanized institutional framework throughout the country. It is time to change from the earlier stages of implementing pilot projects and evolve into a full-scale development of locally based and participatory coastal management. The government begins to push forward with decentralization and devolution as a complete entity; it vests more and more responsibility for social and economic development at local levels in provincial and district offices. The focal point on the rebuilding of local administrations is on the strengthening of the Ao.Bo.To as regards development and people's welfare. Consonant with new trends of such local administration, new fisheries laws are under consideration in the Parliament.

43. Considering the past experiences on pilot projects on CBFM and CM approaches, much effort has been put into setting up a comprehensive strategy for coastal fisheries resource management and community development by the DOF. Prior to the amendment of the laws, the DOF has taken up the challenge of building a new institutional framework at the project site through consultation with the people and their organizations.

44. The LBCRM-PD will provide one experience only. Obviously, it is hard to generalize on one pilot project. Under such different surroundings as geography, types of fisheries, and socio-economics, LBCRM frameworks would exist in different forms and develop in different directions.

45. Nevertheless, the LBCRM-PD may provide a profound insight into a future direction of the decentralization program planned by the DOF. This is chiefly because the project relies on the currently existing local administrative system, which has been standardized throughout the whole country. This is in great contrast to the many pilot projects adopting the CBFM approach, in that their success and/or failures are deeply affected by the level of people's awareness and self-consciousness, and by any other socio-economic factors rather than institutional and legal matters. In the CBFM approach, generalization of successful experiences is a very difficult task.

46. The LBCRM-PD also depends greatly on the people's awareness and self-consciousness on the sustainable use of coastal resources, but not entirely stuck to their self-encouraging and self-regulatory behavior. One goal of the project is to search for a workable and cost-effective mechanism on coastal resource management, through which energetic effort put in by both people and government can easily transfer.

NOTES

¹ *The SFDS started in 1987 and ended in 1996, passing through the Sixth and the Seventh National Social & Economic Development Plans. During the Eighth National Social & Economic Development Plan (1997-2001), the DOF arranged another series of projects entitled the "Rehabilitation of Marine Resource Program". However, there was not much difference in terms of content between the latest scheme and the former ones.*

² *On 19 October 1999, the provincial ordinance, entitled the "Regulation of fishing gear that are prohibited in some areas of Prachuap Khiri Khan", was proclaimed. This ordinance presents the legal framework of the FRPP.*

³ *This does not mean any existence of traditional and customary exclusive use right of coastal resources. On the Andaman side, there are a number of communities where the people set up their own boundaries and coordinate with neighboring communities. They are not always traditional, but based upon the consensus that has been recently obtained between the people, and between communities. There are some augments over the legal validity of setting up such exclusive use rights.*



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