Community Based Fisheries Management (CBFM) in Sunamganj District of Bangladesh: The nature of cooperation and conflicts

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Abstract

There are altogether 411 haors comprising an area of about 8000 square kilometer, covering 25 per cent of entire region dispersed in the districts of Sunamgonj, Sylhet, Moulvibazar, Hobigoni, Netrokona & Kishoregani. Sunamgani district is particularly known as a district of haors and baors where a large number of people depend on fishing for their livelihood. Some people are basically fishermen and fish all the year round. Community Based Fisheries Management (CBFM) project has been initiated in this area to develop fishery sector as well as for the development of the inland fishermen of haor area. Healthy cooperation among the beneficiaries of the project is very much present and some NGOs are found working actively there to help the fishermen for the sound implementation of the project. But the influentials of different villages around create troubles and conflicts intentionally in the project area because of which fishermen cannot fish smoothly and the implementation of the project is getting hampered. Therefore, a kind of consensus needs to be reached among the inhabitants of the haor area and a powerful association of the fishermen should be established so that fishing may be undertaken in the beel without having any troubles and conflicts. In this article the conflicts and cooperation that are in existence in the implementation process of CBFM project in the haor areas of Sunamgonj district have been discussed. Some suggestions have been offered in the paper to overcome the existing conflicts impeding the smooth implementation of CBFM project in the fishery sector of haor area under Sunamganj district.

Key words: Community Based Fishery Management, NGO, Haor, Beel

Introduction

Fisheries sector is of considerable importance in the economy of Bangladesh. Since Bangladesh is an agro-based developing country and 51.7 per cent of our labor force are involved in agriculture and therefore it is natural that most of the people of our country live in rural areas. As a result there is a higher degree of dependency on natural

resources like agriculture, water etc for food, income and livelihood. Agriculture contributes 21.77 per cent to the total GDP and of this 4.86 per cent comes from the fisheries. The annual growth rate in fisheries sector is 3.89 per cent (MOF 2006). Bangladesh is blessed with rich and diverse natural resources for fisheries. So the fishery sector makes important contributions to income, employment, nutrition and foreign exchange earnings in Bangladesh. The overall development of fishery sector in Bangladesh depends on proper policy of the government about fishery, proper management of fishing areas, sustainable use of fishing grounds and development of socio-economic conditions of the actual fishermen.

The Community Based Fisheries Management (CBFM) project started activities in 19 rivers and *beels* between late 1995 and mid 1997 in Bangladesh to develop the inland open water fisheries of this country. The project is designed as an action research project to test and assess alternative models of GO-NGO-Fisher collaboration and thereby develop a framework for CBFM that might achieve greater efficiency, equity and sustainability (Thompson *et. al.* 1999).

To assess the sustainability of CBFM system it is essential to gain knowledge about the activities of the project, conflicts emerged in project implementing areas, and to find out the possible strategies and adequate policy for sound management of fishery to overcome these impediments and after all the life style of the fishermen who are the key to improve the fishery sector. In a broad sense, the objective of this study is to elicit the nature of cooperation and conflict relating to management of fishery in the CBFM project areas and to suggest policies and strategies for sustainable CBFM.

Methodology

The study is basically a descriptive and diagnostic study. According to the objectives of the study, necessary data have been collected, following descriptive and diagnostic design. On the basis of the analysis of collected data, the study offers suggestions for reducing conflict and accelerating cooperation among fishermen and other people for the sustainability of CBFM system in Sunamganj district.

The concept of CBFM

CBFM means Community Based Fisheries Management, a project currently getting implemented in Bangladesh. The first phase of CBFM project during 1994-2000 supported by Ford Foundation grants to the government and non-government partners has already been implemented. CBFM-2 started in September 2001. It is a 5-year project to be implemented by a partnership of Department of Fisheries (DOF) and several NGOs supported by the Department for International Development (DFID) through a grant to the WorldFish Center (WFC). The project has been planned in the true spirit of polycentric approach. DOF, different NGOs, community people and local bodies would collectively give a concerted effort to implement the project. CBFM project aimed at developing a system of shared responsibility between the Government and the

local resource users to manage these fisheries. This is a technical assistance project of the DOF working in collaboration with national NGOs and regional NGOs, with technical assistance by WFC. In Sunamganj, the partnership of two NGOs – Efforts for Rural Advancement (ERA) and Sunamgang Jonokalyan Sangstha (SUJAN) have formed Community Based Organizations (CBO) for the management of different haors located in the areas. At the local level CBOs have formed different Beel Management Committee (BMC) for the implementation of CBFM taking the help from the NGOs. The BMC is a body of fishermen selected by the beneficiaries of the project. This body usually takes all the important decisions relating to fishing in haors as well as management of the beels located in the project area. The partners NGOs have been working for providing adult education, training on alternative income generating activities and credit, raising awareness for fishery management problems, and helping the fishers develop institutions and techniques for managing the fisheries.

Study area and sources of data

CBFM project is getting implemented in Sunamganj haor area of Sunamganj district in Bangladesh. So the haor areas of Sunamganj (Derai and Bishwamvarpur) have been chosen purposively for the study. The villages nearby the haor/beel where the project is to be implemented are the areas for our proposed study.

The beneficiaries particularly the fishermen having related to CBFM project and the villagers of the study areas are considered as population and sources of data. Besides, different stakeholders and community people are treated as key informants for authentic data. The adult persons are interviewed and have been considered as unit of the population.

Multi-stage sampling method has been applied for selecting sample size. At first, two geographical areas of Sunamganj, namely Derai and Bishwamvarpur under CBFM project have been selected and then the fishermen/community people involved in CBFM project, other fishermen, fish traders, businessmen of fishery and other villagers have been selected for data collection. To make the sample size truly representative, about 40 per cent of the direct beneficiaries from each *beel* have been selected from the villages and data were collected from them. Besides, 10 per cent respondents who are completely non-beneficiaries of the project have been selected from the villages randomly for data collection. It may be mentioned that 10 per cent respondents consist of fishermen not related to CBFM, fish traders and local leaders. The total sample size is 150.

To conduct the study both qualitative and quantitative data have been collected by using schedule and other methods of data collection. Survey, Case study, Focus Group Discussion, Semi-structured Interview and Observation methods have been applied to collect data.

Data processing, analysis and interpretation

The collected data have been edited properly and coded for analysis. After checking and rechecking, the schedule has been accepted for processing and analyzing the data. The collected data have been analysed systematically and simple statistical methods such as frequency distribution and average have been used to arrange the data. Both qualitative and quantitative data are analysed and interpreted. However, the study has the following limitations:

- Data have been collected from the villages around the *haors* and *beels* where the project has been planned to implement and therefore in-depth study was not possible to a greater extent. Participant observation method could not be applied to explore various facts received from the informants.
- The people who have opposed the project could not be interviewed and therefore their opinions towards the project remain unexplored.
- Due to lack of necessary documents the evidence of cooperation among NGOs, administration, beneficiaries and the incidents of conflict in the study area could not be explained properly.

Results and discussion

CBFM project and its contribution

CBFM project is getting implemented for developing the socio-economic condition of the fishermen of Bangladesh. The actual fishermen get lease rights of haor/beel under this project. The CBFM authority helps the fishermen to pay the lease value. After completing fishing, the members of CBFM project save the lease value in a collective account and use the money for getting lease in the succeeding year. The profit is divided equally among the fishermen. They are organised under different sommittee (fishermen's association) and they perform their activities in some particular beels. The fishermen are organised because of the efforts made by some NGOs in the name of fishermen association. These beneficiaries of the project have acquired knowledge about the necessity of cooperation for enjoying their rights, how to develop fishery and ecological knowledge conducive to fishery by involving themselves in CBFM project. Since the fishermen have got the fishing rights in beels, their interest towards fishing in the beels has-considerably gone high. Some sommittees could not gain profit from fishing under CBFM project due to some difficulties, whereas other sommittees could make profit by fishing in the beel under CBFM project. Kazal et al (2006) shows that around 65 per cent of the fishermen involved in CBFM project gain profit up to Tk. 50,000 per year and others make profit even more than that. Due to high sub-lease value, rainfall and other reasons the fishermen could not make any profit in fishing in some of the beels during the year of our study (Table 1). In some beels the beneficiaries could not enjoy the benefit of the project due to continuous violent conflict with the outsiders and also because of the illegal intervention of the outsiders in the *beels* under the project.

The project has helped the fishermen of haor area to get an opportunity for employment and income. Almost all of the respondents support CBFM system for fishery management considering the project as very helpful for the poor fishermen and also beneficial for the development of fishery.

Table 1. Info	ormation about	profit/loss	in different	beels under
	CBFM project	during the	study year	

Area	Name of the	Profit	Loss	Causes of loss	
	Suma nodi jolmohal	Anowarpur, Dolua, Dhulpushi, Pangaon, Dottogram, Dalkutub	No	Yes	Due to violent conflicts
DERAI	Nainda beel	Meghna, Dolua	No	Yes	Due to rainfall, high lease value, Part of the beel is occupied by mosque committee of Dolua
	Nainda beel	Modhupur	No	Yes	Due to prohibition of villagers of Modhupur
	Chatol beel	Patharia	Yes	No	
UR	Chatol Moishakuri	Rajnagar, Gopalpur Nayahati	Yes	No	
BISHAMVARPUR	Lamba <i>beel</i> majer kitta	Chandergaon	Yes .	No	'
	Lamba <i>beel</i> majer kitta	Brozonathpur	No	Yes	Due to conflict with leaseholder and NGO
	Chitla beel	Bagmara,Muktikhola	Yes	No	
Total			4	4	

Community compliances and consensus, social cohesion regarding fishing rules

Severe group conflict was not found in most of the villages except one named Anowarpur, in Derai of Sunamgonj, Bangladesh. Groupings and group conflicts among the people of Anowarpur create continuous violence in a fishery named Fainda beel under the project. The BMC (Beel Management Committee) has made effective rules regarding fishing in the beels under the project area. During late autumn or winter outsiders are not allowed to fish in the haor and nobody is allowed to fish in sanctuary. The people of Bishwamvarpur area never break the fishing rules made by BMC. The respondents told that they had no such experience of breaking fishing rules in the fishery. But in Derai area, the people of Anowarpur, Modupur, Dolkutub do not obey fishing rules rather frequently violate them. About 28.67 per cent of the respondents alleged that the people of their villages violated fishing rules hampering the proper implementation of the project. But 36.67 per cent of the respondents told that people of their village never obeyed fishing rules and tried to violate fishing rules regularly. Community compliances regarding fishing are not found in some villages. But 20 per

cent respondents have admitted that there is no consensus among the villagers regarding fishing rules in *beels* under CBFM and 29.33 per cent consider that there is no unity among villagers regarding fishing rules in *beels* under CBFM project. So, it is seen that there are community compliances and consensus, social cohesion regarding fishing rules in most of the villages of the project area.

The causes of conflict and non-compliance found in the project area have been described most problematic and complex one as most of the villagers do not like an NGO named ERA involved in CBFM for being unable to resolve the conflicts existing among different groups in relation to fishing. The aggrieved group of Anowarpur village did not want CBFM project to be implemented in the area since if the project is allowed to be implemented then the villagers would not be able to fish in the *haors* without restraints.

Interaction and cooperation among fishermen involved in CBFM

Cooperation among fishermen (members): The fishermen involved in CBFM project work hard for getting benefit. They help each other for the management of fishery. The patterns of interaction and cooperation among the fishermen involved in fishery have been shown in Table 2.

Table 2. The nature of	cooperation and	interaction am	iong fishermen :	involved in (CBFM project

Nature of interaction and cooperation	Frequency	Percentage
Strong and healthy cooperation	48	32
Normal cooperation	32	21.33
Good cooperation	27	18
Some members are inactive due to conflict	18	12
Some members left sommittee	15	10
Do not work with commitment	5	3.33
Others (joined anti-group, negligence towards fishery)	5	3.33
Total	150	100

The Table shows 32 per cent of the respondents think that the members of CBFM project have strong and healthy cooperation among themselves for the management of fishery and 18 per cent informed that good cooperation existed among them.

The beneficiaries (fishermen) of CBFM project maintain strong and healthy cooperation among themselves for the management of fishery. They guard the fishery, invest for fish stocks and conservation measures, share the benefit and loss equally, put bamboo and branch of trees in fishery during rainy season, make sanctuary and accomplish every activity conducive to fishery. The BMC members make plans and take decisions with NGO representatives about the management of fishery and the general members of fishermen association help them to execute the plans.

The fishermen do interact with other fellow villagers and they are no way isolated from the community. The social status of the fishermen is found low in these villages. But it may be mentioned that they do not face any problem in case of interaction with other villagers.

Cooperation among fishermen (beneficiaries) vs. non-fishermen/outsiders: The traditional way of fishing in the haor is the leasing system. The influential rich called mohazon get the lease rights of fishing in the beel and they employ the fishermen to do fishing activities in the haor. Under CBFM project the fishermen get the lease right of fishing in the haor instead of mohazon. The members of CBFM perform every activity for the development of fishery with the help of NGOs. The BMC members help them do necessary activities. Some BMC members are not the direct beneficiaries but help the beneficiaries to perform their activities smoothly. Besides, the neighbours not involved in CBFM sometimes help the beneficiaries by offering suggestions or providing information regarding fishery. But the non-fishermen or outsiders do not offer any direct help for the management or implementation of CBFM project.

Cooperation of money lender, leaseholder, earlier lessee, traditional leaders and general mass: In the project area of Bishwamvarpur the general mass, money-lender, traditional leaders do not offer any direct help to the beneficiaries of the project but they did not do any harmful activity to the project. A few of them usually offer help for the sound management of CBFM project. But some powerful and influential leaseholders of Sunamganj did harm to the beneficiaries of the project. Due to lack of clear identification of the boundary of a very influential leaseholder's beel and the beel under the project, the leaseholder broke the embankment made by beneficiaries at the side of their beel. So the fishermen did not get expected amount of fishes from their beel and it was a great loss to the members of CBFM.

In Derai area the rich, older people (murobbi), the general mass did not let the members to fish in Futka of Nainda beel and therefore the members were disorganised and became inactive in the project activities. The people of Dolkutub leased out the upper part of Suma nodi to other people and the beneficiaries could not fish here. The people of Anowarpur did not allow the beneficiaries to fish in Fainda beel rather they looted all fishes from the beel beating the members and also searching for opportunities to do harm to the project. The people of Dottogram and Pangaon do not like ERA and they do not help the poor fishermen to enjoy their legal benefits from the fishery of Fainda beel under CBFM. They did not do harmful activities directly against the members but forbid the villagers to work in CBFM project and declared a fine of Tk 500 if anybody participated in ERA.

Cooperation between NGOs and beneficiaries

SUJON is implementing CBFM project in Bishwamvarpur whereas ERA is implementing this project in Derai by taking the help from WFC. NGOs organise the

fishermen under different associations and help them execute necessary steps regarding fishing in the *beel*. NGOs provide training, credit and other helps to the fishermen and their family members. Though these NGOs are working sincerely, there are some limitations or weaknesses in their work and therefore conflicts were found in the study area among fishermen vs. NGOs and community people vs. NGOs.

The Table 3 shows majority of the respondents (50.00 per cent) have admitted that NGOs provide necessary help to members of CBFM and play a positive role for the development of poor fishermen. More than 26.67 per cent of the respondents have informed that NGOs have helped its members with credits and a very small number of respondents have expressed negative opinions about NGOs which have been shown in the Table 3.

Cooperation of NGOs	Frequency	Percentage
NGOs (ERA+SUJON) helped what was needed	. 75	50.00
Got credit	40	26.67
NGOs help by giving credit	27	18.00
NGOs do good work for poor people	13	8.67
Not concerned	8	5.33
Others (did not get credit, ERA works for its own interest, ERA could not help properly)	8	5.33

Table 3. Cooperation of NGOs under CBFM project

Conflict

CBFM project is getting implemented with the help of GO, NGO, WFC, local people and fishermen. There are some violent and non-violent conflicts existing among them. The majority of the conflicts exist among the members (beneficiaries) and non-members in the project area.

Conflicts among fishermen vs fishermen (beneficiaries): In the project area, incidence of violent conflicts among the beneficiaries does not take place but there is a bit of non-violent conflict found among them which could be described insignificant. These conflicts usually take place because of not doing assigned works and sometimes due to misuse of money that is earned through selling fish. They settle these disputes by themselves.

Conflicts with NGOs: The conflicts between NGOs and the beneficiaries are not extreme. When the beneficiaries fail to get loan from the NGOs or the NGOs do not work up to their expectation then they become frustrated and dissatisfied. The major causes of dissatisfaction of the beneficiaries are failure of NGOs to provide necessary credit, being unable to reexcavate beel, for being unable to provide sanitary facilities and because of delaying registration of sommittee. They are also to some extent irritated with

^{*} Multiple answers

the NGO (ERA) since it has failed to provide necessary security to the fishermen during the conflicts with the outsiders. There are people living in the community who do not like ERA, as they perceive that the NGO is unable to work according to their expectations.

The Table 4 shows that about 42.67 per cent of the respondents did not see any conflict taking place between NGOs and the members of CBFM or others regarding fishery. Some respondents (24.00 per cent) have informed that there is conflict existing between an NGO and community people regarding fishery. About 13 per cent of the respondents have informed that there are violent conflicts between the members of an NGO and the inhabitants of Anowarpur regarding credit disbursement and other issues.

Nature of conflicts with NGO	Frequency	Percentage
No conflict	64	42.67
The villagers do not like ERA for being unable to prevent conflicts	36	24.00
Violent conflicts among the members of ERA and the inhabitants of Anowarpur	20	13.33
The opposite group in Anowarpur dislikes ERA	8	5.33
The fishermen are angry with NGO for conflicts with leaseholder Abul <i>mohazon</i>	8	5.33
ERA has excluded the members from beel	6	4.00
Dissatisfaction with NGO for not getting credit	5	3.33
NGOs delay to register sommittee	5	3.33
NGOs did not give latrine, money for reexcavation of beel	5	3.33

Table 4. Nature of conflicts with NGO

Conflicts in fishery under CBFM project

The major conflicts found in different beels under CBFM project are presented in Table 5.

а	Name of beel	Causes/sources of conflicts	Nature of conflicts	Conflicting groups
Area				
Bishwamvarpur	Lamba Beel Majher Kitta	The fishermen made embankment in the beel and leaseholder broke it	Extreme bargaining and quarrelsome environment but no violence.	The fishermen Vs leaseholder
Bishwa		Some leaseholder threatened to break the embankment made by the fishermen of Chandergaon	Threatened from leaseholder	The fishermen Vs leaseholder

Table 5. Nature and major causes of conflicts in CBFM project

^{*} Multiple answers

	Chitla Beel	Some leaseholder broke	Threatened from	The fishermen Vs
		embankment made by	leaseholder	leaseholder of
		fishermen		nearby fishery
	Chatol	Lack of awareness regarding the	Lack of unity among	Fishermen Vs
	Moisha-kuri	nature of work among the	the villagers.	fishermen
		members of two villages		
	Nainda <i>Beel</i>	Part of fishery used for the	Fishermen are	Fishermen Vs
		source of income for a mosque	dissatisfied for it	committee of
		of Dolua		mosque of Dolua
		The villagers (rich & older	Fishermen are	Fishermen Vs
		people) prohibited the	dissatisfied and	villagers of
		fishermen to fish in Futka of	economically loser for	Modhupur
		Nainda beel	such decision made by	
			villagers	
	Suma <i>Nodi</i>	Part of Suma is given lease by	The fishermen could	Fishermen Vs
	Jalmo	the villagers of Dolkutub. The	not fish and have	villagers of
Derai	hal	authority could not show legal	become frustrated for	Dolkutub
Ď		document for that part	it	
		The people of Anowarpur	The fishermen were	Fishermen Vs
		attacked the members several	injured and admitted	fishermen and
		times and brutally injured the	in hospital	villagers of
		members of Fainda beel and		Anowarpur
		looted all fish		
	Chatol Beel	The members failed to fish by	The fishermen are	Fishermen Vs NGO
		providing money (lease value)	dissatisfied with ERA	
		demanded by ERA. ERA formed		
		new sommittee excluding the		
		existing members		

Negative effect on fishery / fishermen because of the activities of the outsiders

The fishermen are always in fear about the possibility of stealing the fishes from the beel and therefore they guard the beel for whole night during or before the fishing season. This is a physical suffering for everybody to guard the beel for a particular period of time. The fishermen working under Fainda Beel had the experience of being devastated caused by the outsiders. The people of Anowarpur looted the beel at night beating the members of CBFM project mercilessly. They beat the members at night injuring more than 10 people. So the fishermen could not fish in the beel. Some people of Anowarpur caught all the fishes from the beel illegally. Even the people of Modhupur did not let the members of CBFM to catch fish from Futka of Nainda Beel. The villagers of Dolkutub leased out the upper part of Suma and therefore the members could not fish in this part of the river. Because of the above mentioned reasons some of the members of CBFM involved themselves in conflicts with the outsiders. As a result the fish production in these beels was hampered and the expected profits could not be made from the project. Therefore the poor fishermen became economically loser and frustrated.

Conclusion and recommendations

The socio-economic condition of inland fishermen of *haor* area is not satisfactory. They are living in such areas where there is limited scope of having employment opportunities except farming and fishing. Sometimes the fishermen cannot cultivate rice due to flood and then fishing becomes the only way to survive. Due to the initiation of CBFM project, the fishermen have got fishing rights in *beel* and they think that if they can fish in *haor* smoothly without facing conflicts then they would be able to gain more profit from the fishery.

On the basis of the findings of the study we have the following suggestions for the proper implementation of CBFM project and socioeconomic development of the fishermen.

- The sustainability of CBFM project depends on the sound management of fishery. So the authorities should take effective steps for reducing violent and non-violent conflicts that exist in CBFM project area.
 - O To do this the authorities can arrange a meeting in Derai area inviting all members of CBFM, local people, chairman and members of union council, representatives of NGOs, administration and DOF to reach a consensus regarding the management of fishery and for reducing conflicts in terms of taking the possessions of some beels of this area.
 - o The police administration should provide security to the fishermen, especially during fishing season.
- It seems that the local people have no clear idea about the CBFM project. It may be noted that community based consensus regarding fishing could be essential in order to ensure the sustainability of the project. Apart from having a strong organization of fishermen, necessary information about the project may be disseminated among the local people so that the sustainability of the project could be made ensured. If it is done then it may be helpful for the improvement of the socio-economic condition of the fisherman. Hopefully it would help in the development of fishery in our country too.
- The NGOs should work more creatively to organise the fishermen and to increase the awareness among the fishermen about their rights in fishery. Thus they will be more conscious and empowered.
- NGOs should take effective steps to register the BMC or sommittee so that the fishermen get the opportunity of getting direct lease of fishery in their locality.
- The government should take adequate policies to handover the fishery to the actual fishermen who are living nearby fisheries. That means the initiation of CBFM system for the management of fishery will be very helpful for the development of fishermen and fishery sector of Bangladesh.
- The DOF should provide necessary technical assistance to the fishermen for the development of fishery sector under CBFM project.

- Necessary steps are needed for reexcavation of *beels*, tree plantation, establishing sanctuary in the *beels*.
- Socioeconomic development activities should be increased in the *haor* area through joint activities of GOs and NGOs.
- A comprehensive study may be undertaken in Bangladesh about the conflicts that exist in fishery sector of the country. A comparative study may also be conducted to get a clear idea about the conflicts existing between fishery sector under CBFM project and the fisheries which are not under CBFM.

The fishermen of the study area consider CBFM project as an important way of developing their socioeconomic condition. But in some areas they cannot enjoy the benefit of fishery because of conflicts unleashed by the outsiders. The findings of the study is expected to be helpful for the policy makers to get a general and overall idea about conflicts and cooperation in CBFM project and the condition of fishermen of haor area as well.

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References

Kazal, M, M.H, M.S. Islam and T. Ahmed, 2006. 'Fish Marketing of Community Based Fisheries Management (CBFM) System in the Haor Areas of Sunamganj District', *Progressive Agriculture*, 17(2):249-260.

MOF (Ministry of Finance), 2006. Economic Review of Bangladesh 2006. Ministry of Finance, GOB, Dhaka.

Thompson, P.M., P. Sultana, M.N. Islam, M.M. Kabir, M.M. Hossain and M.S. Kabir, 1999. An Assessment of Co-management Arrangements Developed by the Community Based Fisheries Management Project in Bangladesh, An assessment of co-management arrangements developed by the Community Based Fisheries Management Project in Bangladesh. Paper presented at the international workshop on fisheries co-management, 23-28 August 1999, Penang, Malaysia.

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