Original paper

PROFILES OF ENFORCEMENT AND SURVEILLANCE IN JAVA SEA FISHERIES: A CLOSER LOOK AT THE CIRCUMSTANCES OF PEMALANG AND DEMAK REGENCIES¹

Indah Susilowati *)

Lecturer and Researcher

Magister of Management Program - the Faculty of Economics, Diponegoro University Jl. Erlangga Tengah 17 Semarang 50241, Tel: +62-24-8442273; Fax: +62-24-8449212, Indonesia

Received: May 3, 2002; Accepted: May 29, 2002

ABSTRACT

Compliance is necessary for successful management of the fisheries. In fact, to secure compliance, enforcement and surveillance, which are quite costly, are needed. It is realized that enforcement inputs in Indonesia is limited and not sufficient to watch the waters of this country. Therefore, it needs a lot of effort to improve the enforcement and surveillance schemes. It is necessary to find out new alternatives or paradigms of monitoring, controlling and surveillance (MCS) in such a way in order to ensure the sustainability of the fisheries resource.

Key words: Compliance, management, enforcement, monitoring, controlling, surveillance, sustainable, fisheries.

*) Correspondence: Telp: 024-8442273; Fax: 024-8449212 E-mail: Indah susilowati@rocketmail.com

Introduction

Indonesia, as a maritime country, consists of thousands of islands. In order to cover such a vast territory, sufficient surveillance and enforcement fleets are needed. In fact, enforcement inputs in Indonesia are far from complete. This induces a higher rate of violation. To achieve a better fishing management, high compliance towards the rules or regulations is required. It should be realized that to increase the compliance of

fishers is something rather expensive for Indonesia, especially in Java sea fisheries. Without securing compliance of fishers, the efficiency of fisheries management will not be achieved properly. Nevertheless, a lot of effort have been spent to improve the compliance of fishers and other parties.

The implementation of regulations inevitably requires an effective enforcement and controlling mechanism. The fishing situation could get worse if these regulations are violated. Many incidence of non-compliance by fishers

¹ A portion of the research umbrella on Evaluation of Compliance Behavior of Fishers in the Communities with Different Level of Participation in Co-Management Processes (Cmps): A Case Study in Central Java Fisheries. It was presented in the the 6th Asian Fisheries Forum, at the National Sun Yat Sen University, Kaohsiung-Taiwan, 25-30 November 2001.

were found in Indonesia (Susilowati, 1998). This condition is perhaps shared by the lack of enforcement and surveillance inputs. Hence, high incidence of non-compliance tends to fisheries policies make ineffective. Therefore, a rationale and fairness of the regulations and sufficient in enforcement and surveillance efforts would he considered as important factors in reaching high compliance.

Effective enforcement in Indonesian fishery is difficult to achieve in a short period of time.. This is due to the physical difficulties involved in patrolling the long coastline. Lack of enforcement resources also results in less effective control over the regulations imposed. Under situation of economic down-turn in Indonesia, the budget and facilities enforcement and/or surveillance dropped significantly. Moreover, people tend to back off on their commitment toward complying regulation. Therefore, enforcement and surveillance activities to the fishery in Indonesia (including in Java sea) seem to be far from sufficient.

MATERIAL AND METHODS

economics of fisheries law enforcement assessed by Sutinen and Andersen (1985) concluded that from both historical evidence and logical reasoning enforcement costs are a major determinant of regulatory policy for nonexclusive resources. Surveillance and enforcement operations are critical to the success of any system of fisheries management. Goodreau (1987) believed that without enforcement fisheries regulations will be ineffective. Only effective enforcement can prevent fisheries from deterioration (Sutinen and Kuperan, 1994). Incomplete enforcement could result in the non achievement of the expected objectives of fisheries management for the targeted fishery.

Moreover, Sutinen and Hennessey (1985) examined the impact of enforcement under the Magnuson Fisheries Conservation and Management Act of 1976 (MFCMA). They also exposed enforcement as the neglected element in fishery management. They raised a question on the assumption of most literature on fisheries management and regulation, i.e. laws can be perfectly enforced without cost. In fact, law enforcement is usually accounted as one of the legal or institutional problems (Kusumaatmadja et al., 1996) and usually imperfect in the fishery as affirmed by Sutinen and Andersen (1985).

The model of non-compliance behaviour outlined by Kuperan (1993) was modified and enhanced by Susilowati (1998). She provided a cross-country comparison for fishers' non-compliance with the fisheries regulation in Malaysia, Indonesia and the Philippines. prescribed that enforcement efforts should be given priority in Indonesia and the Philippines to achieve a better compliance, however costly enforcement might be. Thus, to improve the compliance level she suggested an exploration of the alternative approaches which is afforded by the respective country for managing fisheries. One such strategy may be applied by introducing the co-management approach (Pomeroy et al., 1994).

Methods used to analyse the study are descriptive statistics and descriptive qualitative. The study pulls together the diverse literatures and experiences of the previous studies (e.g. Goodreau, 1987; Sutinen and Hennessey, 1985; Sutinen and Andersen, 1985; Lepiz et al., 1985; Sutinen and Kuperan, 1994; Kusumaatmadja et al., 1996; Kuperan, 1993; Susilowati, 1998, 1999, 2001) to explore the enforcement and surveillance profiles of the Java sea fisheries, especially taking a closer look at the circumstances in the Pemalang and Demak Regencies, and interviewing fishers in Pemalang (n=85) and Demak (n=83).

RESULTS AND DISCUSSION

Enforcement Profile

It is realized that law enforcement in Indonesia (at the national level) is very weak in all sectors, including in the fisheries. Susilowati (1998) found that enforcement intensity on the fisheries regulations for Malaysia is better than for Indonesia and the Philippines. More adversely, the enforcement intensity at the provincial levels such as in Central Java or at the regional level (e.g. in Pemalang and Demak) is weaker than at the national level. Nevertheless, there are efforts to improve the enforcement but with limited inputs. One of the reasonable alternatives is through empowering community with the traditional resource management concepts. The revival of the traditional system such as community-based fisheries resource management (CBFRM), could hopefully prescribe a strategy use to enforce the rules and regulations in fisheries management. It seems this is a good complementary effort to the formal enforcement that was not sufficient enough. Of course, the outcome of such enforcement is far from optimal, but perhaps this is better than leaving the fisheries resource in Indonesia without any efforts of enforcement and surveillance. Theoretically, there are three types of enforcement nodes (Sutinen, namely:

(1) Dockside (On Land)

The achievement status of enforcement process for fisheries' law and regulation at sea and on land (dockside) are basically the same. The slight difference is only in the court process since it cannot be done at sea; the court process should be carried out on land (where the court is located). The "locus deliciti" concept is used to determine where the court process should be carried out at a place nearest to the

place of offence. Sanction and penalty should be imposed fairly with the offences according the valid law and regulation.

general, enforcement fisheries law and regulation has not been applied and followed strictly yet. It is believed that many fishers have not completely understood about the existing rules and/or regulations. This is because the socialization of the rules or regulation is not sufficient enough to touch the grassroot of society (fishers). Therefore, the information flows were not trickled down properly. It indeed needs an improvement of the information system in order to educate the society about the law or regulation. Thus, before strict action or sanctions are imposed on the violators, fishers should be suggested to be aware of and understand the rules. Of course many efforts have been made, and it is not easy to prevent the violations. Therefore, it is expected that fishers with their community should understand the rules or regulation and the laws as well. This is in order to have a better compliance for the fishers about the rule of the games in utilizing the fisheries resource.

(2) At Sea

Under the existing scheme of enforcement, the Navy is appointed as the coordinator for enforcement activities for fisheries regulations in Indonesia. The enforcement team is comprised of the Navy, Water Police (Polisi Air), Fisheries Officer (the of Division Natural Resource Conservation), Harbors and Sea Security, Customs, Magistrate and Courts. The surveillance and enforcement activities arecarried out by using fleets of warships (such as the KRI Teluk Bone) and it usually takes two weeks to cover the target area. Whenever the surveillance team found light violation (in Bahasa Indonesia: Tipiring or tindak pidana ringan), for example like catching traditional fishers operating the mini-trawl or using explosive or poisonous means for fishing, the

enforcement process will be carried out on the spot. If the team found rather serious violation such as illegal foreign fishing boat in Indonesian water, then the case will be brought to the court in the nearest magistrate district.

Actually, the existing surveillance scheme is not only specified for monitoring the fisheries resource but also for multiple purposes and depend on the competent institutions involved in the operation. For example, one of the tasks of Resource Conservation the Natural Division in the Fisheries Office is to conserve the fisheries resource on the sea while the Customs has the obligation to watch for smuggling, and the Navy has to secure the national defense. Nowadays, the Fisheries Office promotes the concept of WASDI Bahasa Indonesia: (in pengawasan sumberdaya ikan) using their own fleets. There are two boats which have been employed for this action in Central Java Province. WASDI is aimed to carry out surveillance of the fisheries resource to prevent illegal fishing. This effort is expected to be more effective and efficient compared to the previous existing surveillance and enforcement scheme (where all activities became the burden of the Navy as the team coordinator). Sutinen and Andersen (1985) suggested that authorities have to realize that management and enforcement policies were interdependent and should be set simultaneously. They also demonstrated that sea enforcement operations were significantly more expensive than dockside enforcement operations.

Under the WASDI scheme, the investigator will be recruited from the civil officer (called PPNS or *Penyidik Pegawai Negeri Sipil*) in the Fisheries Office rather than from the Navy. Therefore, they are expected to be more competent in the fisheries field and at the same time they can manage the WASDI activities better and more independently, especially in arranging the plan, timetable and needs. In this case, investigation results will be

submitted to the state court for further process. Hence, it is expected that all violators will be prosecuted according to their offences. So far, many cases have been postponed or cancelled due to lack of evidence or wrong base of law, conspiracies, etc. which caused failure in the settlement of the offences. In the past, Fisheries Officers were just employed as expert witnesses in court, while in fact the officer should have had a more important role in the enforcement. Therefore, it is hoped that the WASDI scheme for the surveillance and enforcement will be more representative to improve the compliance behavior of fishers

The statistics of fishers' violation under the scheme of WASDI in Central Java Province in 2000 is summarized in the Appendix. During one year, 451 violations of various types of fishing regulations were found. Almost all of the offences recorded by WASDI were permit violations. This is because surveillance and/or enforcement were mostly done in dockside and therefore violation of gear and zoning as well as means used for fishers were not covered. Three hundred and sixty-three 363 verbal warnings (80% of the offences) were issued to violators first warnings and 11 cases as the second warning. About 35 percent of verbal warnings were ignored by violators and they were followed by written warnings. Lately, it was reported that two prohibited from operating boats were perhaps due to severe violation.

(3) In the Air

At present no air enforcement is available in Indonesia. This is due to the prohibitive cost of its implementation while the budget allocated for enforcement is very limited. In fact, as a maritime country, Indonesia really needs air surveillance and enforcement to cover and watch the vast fisheries territory.

There are several reasons underlying fishers' violation of regulations,

among others: (1) thelengthy procedure to secure fishing permits; (2) lack of communication between Fisheries Officer or other competent institutions with fishers and their community; (3) lack of understanding of the available regulations and its contents. Fishers can not be claimed as the key-players of violation since other parties or stakeholders influenced the the system as well. WASDI's statistics showed that many fishers violated regulations by not having valid permits. Most of them claimed that due to the lengthy procedure in getting fishing permits it took more than three months to secure them . Such conditions need to be deregulated for efficiency purposes since delaying the permit process means the loss of economic opportunity or income to the fishers especially for the small-scale group of fishers. Fishers who do not want to wait for the permit to be approved by the authority would engage in non-compliance actions. Ideally, fishing permits should be processed in a one-day-stop service at the Provincial Fisheries Office or in the Regency Fisheries Office. Such a short cut will probably help the fishing industry progressively.

Surveillance Profile

The surveillance for fisheries and its enforcement for the regulations observed (restrictions of gears, zoning, means used for fishing and fishing permits) in the study area are very weak. The survey showed that almost 92 percent of respondents in Demak and 88 percent of respondents in Pemalang were never reminded by any parties to refrain from violating the regulations whenever they were engaged in non-compliance activities during fishing. This indicates surveillance and enforcement activities in the study area are far from satisfactory. The surveillance nodes introduced by the Fisheries Office in Central Java as explained by a resource person, Achmad

Muntholib* (September 2001) are described as follows:

(1) Dockside (In-Land)

Lately, Central Java Fisheries Office introduced a program for fishing surveillance called WASDI**. The main objective of WASDI is to record the fishers' activities at sea into a log-book provided. The specification of boat and gears used, boats' tonnage, boats' engine power, boats' physical characteristics, number of crew, fishing permits, fishing grounds destination and characteristics should be reported to the WASDI team. The check-points of WASDI are located in the big TPIs (fishing landing or auction place); at present there are 17 TPIs in the north and south coast of Central Java Province. WASDI is considered as a new program for surveillance and enforcement which is initiated by the Fisheries Office of Central Java in 2000/2001. However, it should be noticed that the main constraints in the implementation of this program are lack of manpower and facilities. Ideally, the surveillance using the WASDI scheme should be established in every fishing landing or auction place (TPI) with proper facilities and manpower to handle the program in terms of quality as well as quantity, so that surveillance will be achieved optimally.

(2) At Sea

One node is surveillance at sea. To conduct sea surveillance needs input which is rather costly for Indonesian circumstances. Due to constraints in limited budget and manpower, therefore, the surveillance activity here is less frequent (at most twice a year). The existing surveillance scheme

^{*} Extension Division, Fisheries Office Central Java Province

^{**} Pengawasan Sumberdaya Ikan or Fisheries Resource Surveillance.

implemented now usually came from the initiative of the Navy and/or the Sea Water Police (in Bahasa Indonesia: *Polisi Air*).

Miscommunication among related institutions remains a classical problem in managing fisheries resources. Surveillance for fisheries resources is usually initiated by the Navy. In fact, the Navy has its own target to conduct sea surveillance operation at sea, i.e. for national defense. Under this duty, the Navy may also be able to apprehend the suspected fishers. However, the main obligation for the Navy is to maintain national defense. Fishers who were arrested at sea by the Navy and/ or the unit of Polisi Air should be sent to the Fisheries Office for further process. However, in such situation sometimes the Fisheries Office is not ready yet to handle further processes. Therefore, many cases are hanging, pending, or cancelled. The ideal surveillance as expected by the Fisheries Office is that at least once in a month the integrated surveillance (with the competent entities, assuming the budget and manpower are available) should be conducted on a routine basis.

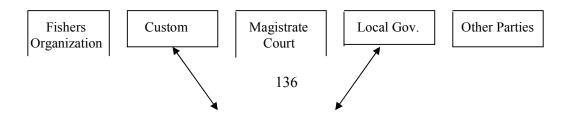
(3) In the Air

Today, surveillance and enforcement of fisheries resource regulations from the air have not been conducted in Indonesia due to high investment and operational costs. Remote sensing technology through satellite has been implemented to find fish schooling but not for surveillance

activities. In order to conduct surveillance on a very vast area of maritime or fisheries resource, Indonesia should use air fleets for better efficiency in enforcement. However, it is prohibitively expensive. For that reason, therefore, surveillance and enforcement are not included in the air node. Hopefully, one day air surveillance and enforcement to the fisheries resource of Indonesia will be applied.

Enforcement and Surveillance Organization

Indonesia is composed of about 17,500 islands stretched out between Sabang in the western part to Merauke in the eastern part of Indonesia. Surveillance of the fisheries resources and enforcement of its regulation can not be managed by a single entity (for instance the authorities only). It requires partnership among the competent stakeholders since surveillance compliance are expensive actions. Thus, to improve the compliance achievement there is a need to divert the shares of the responsibility among the relevant parties, such as the Fisheries Office, Polisi air, the Navy, etc. Partnerships (or outsourcing) can reduce the uncertainty and failure of the action. To ensure the compliance level efforts to enhance the enforcement of the regulation concerned is needed. The organization scheme of WASDI for surveillance and enforcement fisheries resource in Indonesia is shown in Figure 1.



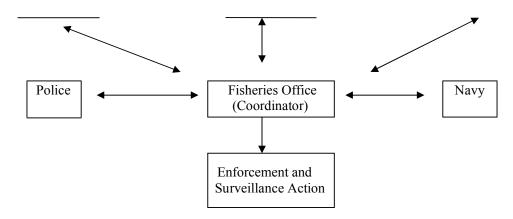


Figure 1: Expected Organization Under WASDI Scheme

The expected enforcement entity based on the perception of respondents showed that the government has been chosen as the expected coordinator of the entity as proposed by 73 respondents (88 percent) in Demak and 72 respondents (85 percent) in Pemalang. Only 59 persons (71 percent) and 56 persons (66 percent) of respondents agreed that surveillance and enforcement

activities should be coordinated by the community or society. The arbitrage entity was selected as the coordinator of surveillance and enforcement program by 65 respondents (78 percent) in Demak and 69 respondents (81 percent) in Pemalang. The detailed suggestions proposed by respondents is shown in Table 1.

 Table 1. The Expected Enforcement and Surveillance Entity as Proposed by Respondents

Description	By Government	By Community	By Arbitrage Entity			
Demak Regency						
Fully Disagree	2 (2.4%))	2 (2.4%)	2 (2.4%)			
Disagree		1 (1.2%)	3 (3.6%)			
Don't know	7 (8.4%)	20 (24.1%)	12 (14.5%)			
Agree	48 (57.8%)	42 (50.6%)	59 (71.1%)			
Totally agree	25 (30.1%)	17 (20.5%)	6 (7.2%)			
Sub-total	82 (98.8%)	82 (98.8%)	82 (98.8%)			
No reply	1 (1.2%)	1 (1.2%)	1 (1.2%)			
Total	83 (100.0%)	83 (100.0%)	83 (100.0%)			
Pemalang Regency						
Fully disagree	2 (2.4%)	2 (2.4%)	2 (2.4%)			
Disagree		1 (1.2%)	2 (2.4%)			
Don't know	11 (12.9%)	26 (30.6%)	12 (14.1%)			
Agree	51 (60.0%)	48 (56.5%)	66 (77.6%)			
Totally agree	21 (24.7%)	8 (9.4%)	3 (3.5%)			
Total	85 (100.0%)	85 (100.0%)	85 (100.0%)			

Source: Primary data, processed in 2001

It seems that respondents in the study area perceived that the Government has the legitimacy to handle the responsibility of surveillance and enforcement program for fisheries resource. This is proved by the highest nomination for the coordinator for enforcement and surveillance that goes to the Government entity and followed by the role of stakeholders. The most effective enforcement effort as perceived by respondents in order to improve fisher's compliance is shown in Table 2.

Table 2. The Most Effective Enforcement Efforts to Improve Fishers' Compliance as Perceived by Respondents

Description	Freq.	%
Demak Regency		
No reply	64	77.1
Strict enforcement: boats and permits	1	1.2
Enforcement should be in collaboration with the Navy	1	1.2
Restrict environmentally unfriendly gears but provide gear substitutes	6	7.2
Empower local fishers	1	1.2
Empower all stakeholders	5	6.0
Enforcement restricted to large-scale fishers only	3	3.6
Restriction should be applied fairly in all regions	2	2.4
Total	83	100.0
Pemalang Regency		
No reply	67	78.8
Strict officers	1	1.2
Good cooperation	1	1.2
Restriction should be applied fairly in all regions	1	1.2
Restriction but provide alternative gear	1	1.2
All stakeholders should be involved	2	2.4
Routine enforcement operation	5	5.9
Comprehensive enforcement	3	3.5
Enforcement restricted to large-scale fishers only	2	2.4
All destructive gears are banned	2	2.4
Total	85	100.0

Source: Primary data, processed in 2001.

CONCLUDING REMARKS

The effectiveness of law enforcement in Indonesian fishery could hardly be achieved in a short time due to several factors such as the long coastline and dispersed locations of the. Theoretically, the level of compliance of fishers can be improved by increasing the enforcement efforts, but this is not very practical because it involves a lot of budget. Therefore, the fisheries management authorities should explore alternative

strategies to perform surveillance on fisheries resources. One alternative is through the empowerment of stakeholders, particularly to seek help from the fishing community, perhaps via community-based or co-management approaches (Pomeroy et al., 1994).

ACKNOWLEDGEMENT

This study has been funded by the ICLARM for Co-Management Project in Phase II. The paper benefited from the useful comments of Dr. K. Kuperan

Viswanathan. I would like to thank my students Indra, Sismadi, Shanti, Argian, Jamal, Fajri and Sinta for data collection, Dr. Waridin for editing the report; and Mr. Tri Setyawanta for sharing knowledge in legal aspects.

REFERENCES

- Goodreau, Louis J (1987). "Enforcement of the MFCMA: An Economist's Perspective, Discussion". *Marine Fisheries Review*. No.49(3): 36-43.
- Kuperan Viswanathan (1993). Deterrence and Voluntary Compliance With Zoning Regulation in Malaysian Fishery. *Ph.D. Dissertation*. University of Rhode Island, USA. Published Dissertation, UMI.
- Kusuma-Atmadja, Mochtar and Purwaka, Tommy H. (1996). "Legal and Institutional Aspects of Coastal Zone Management in Indonesia". *Marine Policy*, Vol.20 (1): 63-86.
- Lepiz, L. Guillermo and J.G. Sutinen (1985). "Surveillance and Enforcement Operations in the Costa Rican Tuna Fishery". *Marine Policy*, Vol:9(4). October.
- Pomeroy, Robert S. and M.J. Williams (1994). Fisheries Co-Management and Small-Scale Fisheries: A Policy Brief. *ICLARM*. Manila.
- Susilowati, Indah (1998). Economics of Regulatory Compliance with Fisheries Regulation in Indonesia, Malaysia and the Philippines. *Ph.D. Thesis.* Faculty of Economics and Management. University Putra Malaysia.

- Susilowati, Indah (1999). Role of Law Enforcement Activities in the Fisheries Resource Management. *Journal of Coastal Development*. Vol.: 2, No.2, February 1999.
- Susilowati, Indah (2001). "Evaluation Of Compliance Behavior Of Fishers In The Communities With Different Level Of Participation In Co-Management Processes (Cmps): A Case Study In Central Java Fisheries, Indonesia". Research Report. ICLARM. Penang, Malaysia.
- Sutinen, J.G., and P. Andersen (1985). "The Economics of Fisheries Law Enforcement". *Land Economics*, 61(November): 387-97.
- Sutinen, J.G. and Timothy M. Hennessey (1985). "Enforcement: the Neglected Element in Fishery Management". *Natural Resource Economic and Policy Application*. Miles, Perly Stibes (Eds).
- Sutinen, J.G. (1987). "Enforcement of the MFCMA: An Economists Perspective". *Marine Fisheries Review*, 49(3): 36-43.
- Sutinen, J.G. and K.Kuperan (1994). "Socioeconomic Theory of Regulatory Compliance". Paper Presented to the 7 th Conference of the International Institute of Fisheries Economics and Trade, 18-21 July 1994, Taipei-Taiwan.
- Sutinen, J.G. (1996). "Fisheries Compliance and Management: Assessing Performance". A Report to the Australian Fisheries Management Authority Canberra Act. July 1996.

APPENDIX
Statistics of Fishers' Violation and Its Treatment
Central Java Fisheries Under WASDI Scheme, Year 2000

No	Month	Fish Landings	Types of Violation	Case Treatments

		or Auctions	Α	В	С	D	Е	Total	War	rbal ning	Writ War	ning	SS	PU	Other s
									I	Ш		Ш			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	January	PPNP	_	10	_	_	-	10	10	_	_	_	_	_	_
	January	PPNC	-	-	12	22	-	34	34	-	34	-	-	-	-
		PPI Bajomulyo	-	-	-	-	-	-	-	_	-	-	-	-	-
		PPI Klidang Lor	8	8	2	6	_	24	13	_	-	-	-	-	
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
2	February	PPNP	_	2	_	_	_	2	2	_	-	-	_	_	_
	Coldary	PPNC	-	-	12	27	_	39	39	_	20	_	_	_	-
		PPI Bajomulyo	-	_	-	-	-	-	-	-	-	_	_	-	-
		PPI Klidang Lor	5	5	5	8	_	23	11	_	-	_	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
3	March	PPNP	1	2	-	-	-	3	10	-	-	-	-	-	-
		PPNC	-	-	5	20	-	25	25	-	-	-	-	-	-
		PPI Bajomulyo	-	-	-	-	-	-	-	-	-	-	-	-	-
		PPI Klidang Lor	11	11	1	4	-	27	13	-	14	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
4	April	PPNP	-	2	-	-	-	2	2	-	-	-	-	-	-
		PPNC	-	-	27	14	6	47	47	-	47	-	-	-	-
		PPI Bajomulyo	-	-	-	-	-	-	-	-	-	-	-	-	-
		PPI Klidang Lor	6	6	1	3	-	16	10	-	6	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
5	May	PPNP	_	_	1	_	_	1	_	_	_	_	1	_	-
•	way	PPNC	-	-	3	-	-	3	3	-	3	-	-	-	-
		PPI Bajomulyo	6	6	-	-	_	12	6	_	6	_	_	-	-
		PPI Klidang Lor	-	-	4	-	_	4	4	3	-	-	_	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
•	I	DDND			4			4					_		
6	June	PPNP	-	-	1	-	-	1	-	-	-	-	1	-	-
		PPNC	-	9	6	-	-	6	6	-	6	-	-	-	-
		PPI Bajomulyo	9	-	-	-	-	18	9	-	9	-	-	-	-
		PPI Klidang Lor	2	4	3	-	1	10	7	3	-	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
7	July	PPNP	-	-	-	-	-	-	-	-	-	-	-	-	-
		PPNC	-	-	7	-	-	7	7	-	7	-	-	-	-
		PPI Bajomulyo	6	6	-	-	-	12	6	-	1	-	-	-	-
		PPI Klidang Lor	-	-	2	-	4	6	6	-	-	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
8	August	PPNP	-	-	-	-	-	-	-	-	-	-	-	-	-
		PPNC	-	-	5	-	-	5	5	-	5	-	-	-	-
		PPI Bajomulyo	11	11	-	-	-	22	11	-	-	-	-	-	-
		PPI Klidang Lor	2	2	2	1	-	7	5	2	-	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
9	September	PPNP	-	-	_	-		_	-	_	-	_	_	_	-
9	ochigiiingi	PPNC	-	-	5	-	-	5	5	-	5	-	-	-	-
		PPI Bajomulyo	12	12	-	-	-	24	24	-	-	-	-	-	-
		PPI Klidang Lor	2	-	3	-	-	5	4	1	-	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.11														
10	October	PPNP	-	-	-	-	-	-	-	-	-	-	-	-	-
		PPNC	?	?	?	-	-	?	?	-	?	-	-	-	-
		PPI Bajomulyo PPI Klidang Lor	10	10	-	-	-	20	10	-	-	-	-	-	-
		PPI Klidang Lor PPI Pelabuhan	3	2	-	-	-	5	5	-	-	-	-	-	-
	1	rri reiabunan	-	-	-	-	-	-	-	-	-	-	-	-	-

11	November	PPNP	?	?	-	-	-	-	-	-	-	-	-	-	-
		PPNC	?	?	?	-	-	?	?	?	-	-	-	-	-
		PPI Bajomulyo	2	2	-	-	-	4	4	-	-	-	-	-	-
		PPI Klidang Lor	-	2	6	-	-	8	6	2	-	-	-	-	-

ISSN: 1410-5217 Accredited: 69/Dikti/Kep/2000

		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
12	December	PPNP	?	?	-	-	-	-	-	-	-	-	-	-	-
		PPNC	?	?	?	-	-	?	?	?	-	-	-	-	-
		PPI Bajomulyo	2	2	-	-	-	4	4	-	-	-	-	-	-
		PPI Klidang Lor	5	5	-	-	-	10	10	-	-	-	-	-	-
		PPI Pelabuhan	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total		103	119	113	105	11	451	363	11	156	-	2	-	-
	%		23%	26%	25%	23%	2%	100%	80%	2%	35%		0,4%		

Notes:

Notes:
Types of Violation

A. The xerox copy of fishing firm's permits are not available

B. The original copy of the respective permits are not available

C. The permits in A and B are available but expired

D. The specification of physical conditions are not match with the specification printed in permits

Example: Boat GT capacity is not tally with the specification printed in permits

Boat HP capacity is not tally with the specification printed in permits

Gears used is not tally with the specification printed in permits

Number and composition of boat crew are not tally with the specification printed in permits Size of storage capacity is not tally with the specification printed in permits

E. : Others
SS. : Operation is prohibited temporally
PU : Case is brought to the court
Others

Source: WASDI Program Report, Fisheries Office of Central Java Province (2001).