

Impact of Decree No. 115/2008/Nd-Cp, on ISF Abolishment, on Management and Exploitation of Hydraulic Works and Irrigation Service to Farmers' Agriculture Production

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I. Introduction

Before 2008 farmers in Viet Nam had to pay irrigation service fee (ISF) to: (i) state irrigation management organizations (IMCs), for system level irrigation management, and (ii) water user organizations, by agreement of water users at water users meetings, for on-farm irrigation services. The collected fees were usually insufficient for IMC's operation and the uses of ISF were prioritized for staff salary, electricity, the repair, maintenance of irrigation systems was often neglected leading to system deterioration and low performance.

Since 2008 the government issued and is implementing decree 154/2007/ND-CP and subsequently decree 115/2008/ND-CP abolishing system level ISF to reduce burden on farmers. The state now compensates the IMC by paying the ISF on behalf of the farmers, based on implementation and liquidation of the contract between the IMC and WUOs. Farmers have only to pay on-farm irrigation system management fee, the ceiling of which stipulated by local provincial authorities.

This report discusses result of an assessment and analysis of the impacts/outcome of the implementation of government Decree No. 115/CP-2008, abolishing ISF payments, on management and exploitation of irrigation systems and finally on quality of irrigation service to farmers' agriculture production. The report is part of a study: "Evaluation of PIM implementation and proposing measures to promote PIM development in Vietnam" under CPIM-AFD project funded by French Development Agency.

Repair and maintenance expenditure was main indicator for irrigation management organizations' assessment, where focus group discussion was used and records books of irrigation management organizations were assessed and recorded for analysis. Pre-designed questionnaire utilizing indicators of: (i) payment for ISF, (ii) flood inundation and drought areas, and (iii) farmer's satisfaction to irrigation service were used for the randomized survey of farm households. Data of the years of 2007 and 2010 was collected for after-before analysis of the impact of the implementation of the decree 115.

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Field surveys were conducted from June 2011 to February 2012 in 8 provinces of the main economic regions of Vietnam. The provinces were Lang Son and Tuyen Quang in Northern Mountainous Region, Thai Binh and Bac Giang in Red River Delta, Quang Tri in Northern Central Region, Binh Dinh in Southern Central Region and Long An, An Giang in Mekong River Delta.

II. Assessment's results (Issues, challenges and opportunities)

1. Impact on the O&M activities of the state irrigation management organizations (IMCs)

The weakening of farmer's voice in irrigation management that would lead to decreasing irrigation system performance was the main argument during the early stages of implementing decree 115. However the assessment shows that, due to ISF compensation, the revenue of both IMC and water user organization has increased ensuring a stable source of income for their operation. The expenditures on annual repair and maintenance increased in both absolute value and its portion as compared to total expenditure (Figure 1). Canals were cleaner, resulting in more smooth, timely and stable water delivery, pumps were operated responding more promptly to the farmer's needs. Operations were delayed less than the previous practice of waiting for rains to save energy.

2. Impact on water users

i) Irrigation service quality

Irrigation service quality, expressed by the drought and flood inundation areas and farmer's satisfaction indicators, has been improved. After the implementation of the decree 115, there was a significant decrease in drought and inundation areas (Fig.2) and a shifts of satisfaction level, to irrigation service, from low to higher scores (Table 1).

ii) On-farm ISF payment

On-farm ISF payment was closely correlated to household income from paddy rice production. The higher was household income, the higher was household payment for on-farm ISF (Table 2).

In Mekong Delta provinces (An Giang), where the paddy rice production income was high, the payment of on-farm ISF was based on local situation, market price and through the negotiation between water service providers and farmers. Irrigation service business brings in economic efficiency for water service providers, and there are diversified forms of water service providers, ranging from private ones, agriculture cooperatives, and production groups.

In central provinces such as Binh Dinh, the ceiling ISF stipulated by Provincial People's Committee (PPC) was lower than required obstructing WUOs in raising enough money for on-farm system management in spite of farmers agreement (Nhon Hau, Binh Dinh) making them to collect fee illegally, regardless the provincial decision (Nhon Phong, Binh Dinh).

In Red River Delta, with its representative of Thai Binh province, there was competitiveness between WUOs and IMCs in the provision of irrigation service to obtain the ISF compensation.

In areas where the paddy rice production income was low, the irrigation quality was not ensured, and lack of information of the ISF spending, farmers were not willing to pay for irrigation service. There was a trend that WUOs transfer on-farm irrigation management to village community.

III. Conclusions and Recommendations

Implementation of central policies and advocacies

At present, the decentralization of irrigation management to local level is being promoted. However the personnel and financial resources of local irrigation divisions, the main party in charge of guiding and judging implementation of the policy at local level, are quite limited. The capacity of its staff and staff in charge of management and exploitation of hydraulic works should be built through participatory approach and learning by doing process to have high consensus and effectiveness.

Effectiveness of ISF compensation utilization and management of on-farm irrigation:

With the implementation of decree 115, the government ISF compensation scheme has brought positive impacts on the O&M of irrigation systems, mainly through increased money for repair and maintenance activities of both IMC and WUOs. There has also been enforcement for establishment of WUOs capable of receiving ISF compensation for their operations. As a consequence the service quality has improved as measured with an increase in farmers' satisfaction with irrigation services.

However, the platform for farmers-water service providers' interactions seems to be loosening and consideration should be given to creating a mechanism allowing the use of some state compensation budget for capacity building for WUOs. Additionally there is a need for a mechanism ensuring effective spending of the state compensation.

There are diverse forms of on-farm irrigation service providers across the country. These range from private sector entities, agriculture cooperatives, irrigation service cooperatives, production groups and village communities. There is a need to form sound strategies for on-farm irrigation management that are best fitted to location specific constraints. In areas where rice production has brought high household income and thus higher willingness to pay, such as in Mekong River Delta, all organizations in the supply of irrigation/drainage service should be brought into play. Testing of new Public Private Partnership (PPP) models in Cuu Long Delta is recommended.

In other areas, such as central and Red River Delta regions, forms of bidding models should be tested for the effective use of ISF compensation. Additionally, there should be mechanisms allowing WUOs to increase on-farm irrigation fees based on water users' consensus.

In areas with low income from paddy rice production the role of villages and hamlets in the management of on-farm irrigation systems should be encouraged. On-farm ISF payments were found to be closely correlated to household income from paddy rice production. Increase farm household income from agricultural production is a way to improve farmers' contribution and thus on-farm irrigation management

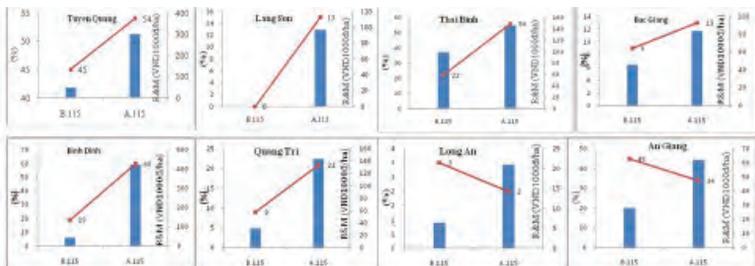
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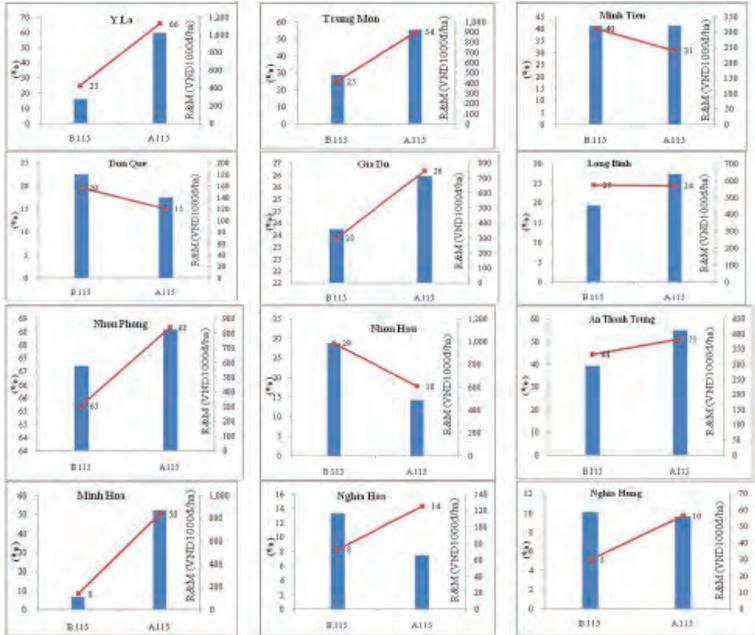
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Figure 1. Expenditure on repair and maintenance activities of IMCs and WUOs

i) State run IMCs

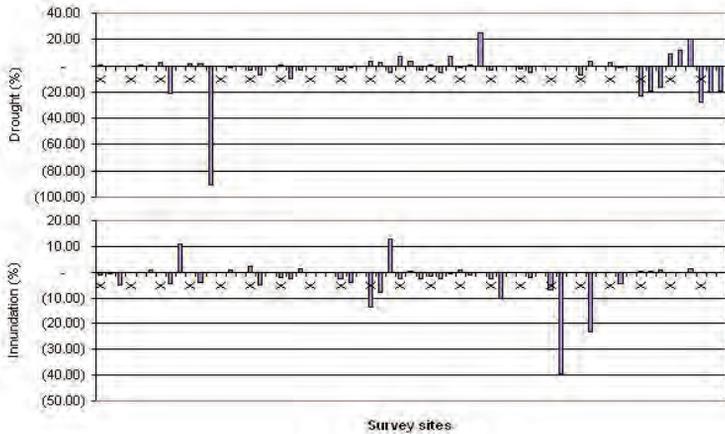


ii) WUOs



Note: R&M (VND 1000/ha) = Repair and maintenance in VND 1000/ha; 45->50%: R&M/ total expenditure in percentage; B 115 = Before implementation of decree 115; A 115 = After implementation of decree 115. Please note carefully the different scales used in these figures

Figure 2. Change in drought and inundation areas (After - Before implementation of 115 decree)



Note: Drought (%) = Difference of the percentage of drought area/total crop area;
 Inundation (%) = Difference of the percentage of inundation area/total crop area

Table 1. Change in satisfaction level, of water users, for irrigation and drainage service
(After - Before implementation of 115 decree)

Survey sites	WUOs	Summer crop										Spring crop										
		Score										Score										
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	
Province		Difference (after-before) of the percentage of the number of the households giving a certain score/total households responded (%)																				
	Long Dien A	-	-	-	-	-	2	(6)	2	-	2	-	-	-	-	-	2	(8)	4	-	2	
An Giang	An Thach Trung	-	-	-	-	-	(8)	(10)	18	-	-	-	-	-	-	-	(6)	(12)	18	-	-	
	An Ninh Dong	-	-	-	-	(5)	(5)	(7)	16	(0)	1	-	-	-	-	-	(0)	(2)	(2)	12	(0)	(7)
Long An	Tan My	-	-	-	-	-	-	50	-	(50)	-	-	-	-	-	-	(33)	-	-	33	-	-
	Nhon Phong	-	-	(8)	(16)	(28)	-	(6)	32	12	16	-	-	(8)	(14)	(27)	-	(4)	26	6	22	
Binh Dinh	Nhon Hau	-	-	-	-	-	(6)	(4)	(5)	13	4	-	-	-	-	-	(4)	(4)	(13)	13	8	
	Gia Do	-	-	-	-	(2)	(4)	(12)	18	-	-	-	-	-	-	-	(6)	(10)	14	2	-	
Quang Tri	Don Que	-	-	-	-	-	(24)	(64)	60	28	-	-	-	-	-	-	(24)	(64)	60	28	-	
	Chi Hoa	-	-	-	-	-	(4)	(21)	(38)	16	47	-	-	-	-	-	(9)	(25)	(28)	16	48	
	Minh Hoa	-	-	-	-	-	4	(5)	(34)	15	20	-	-	-	-	4	(23)	(19)	25	8	4	
Thai Binh	Tan Le	-	-	-	(4)	(13)	(34)	28	24	4	(4)	-	-	-	-	-	20)	(28)	28	20	-	
	Hong An	-	(12)	4	4	(4)	-	8	-	-	-	-	(12)	4	4	(4)	(4)	12	-	-	-	
	Nghia Hung	(7)	-	-	-	(7)	(7)	(20)	10	10	20	(7)	-	-	-	-	(7)	(13)	(15)	13	7	20
Bac Giang	Nghia Hoa	-	-	-	10	27	7	(3)	(27)	(6)	(6)	-	-	-	10	27	7	(3)	(27)	(6)	(6)	
	Tan Thanh	-	-	-	(18)	(18)	(3)	15	18	6	-	-	-	-	(18)	(18)	-	12	18	6	-	
	San Vien	-	-	-	-	-	-	-	-	-	-	-	(4)	(4)	(16)	(16)	28	-	8	4	-	
Lang Son	Son Ha	-	-	-	-	-	-	-	(12)	12	-	-	-	-	-	-	-	-	(16)	16	-	
	Khuat Kha	-	-	-	-	-	-	-	(12)	12	-	-	-	-	-	-	-	-	(16)	16	-	
	Minh Tien	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(12)	12	-	-	-	
Tuyen Quang	Y La	-	-	(4)	-	(6)	(4)	(8)	(16)	2	36	-	-	(8)	-	(4)	(4)	(6)	(16)	4	34	
	Trung Mon	-	-	(6)	(6)	(24)	-	4	2	26	4	-	-	(2)	(6)	(14)	(10)	2	(16)	42	0	-

Table 2. Net income from rice production and On-farm ISF payment

Province	WUOs	Paddy rice Yield (ton/ha)			Net income from rice prod (1000 VND/ha)	On-farm ISF for rice prod (1000 VND/ha)
		1st crop	2nd crop	3rd crop		
	Long Dien A	4.9	3.9	4.5	48354.2	3960.0
An Giang	An Thach Trung	5.6	4.4	4.8	52998.8	1792.8
	Gia Do	4.9	4.0	-	14829.0	940.5
Quang Tri	Don Que	5.5	5.5	-	18320.5	440.0
	Nhon Phong	5.7	4.9	-	10859.4	275.4
Binh Dinh	Nhon Hau	5.8	3.7	2.9	12500.2	340.0
	Chi Hoa	6.4	5.9	-	7821.8	130.7
	Minh Hoa	5.5	4.9	-	6604.6	114.3
	Tan Le	5.9	5.0	-	6921.7	204.2
Thai Binh	Hong An	5.4	5.1	-	6690.9	112.3
	Y La	3.9	3.4	-	6437.2	189.3
Tuyen Quang	Trung Mon	3.6	2.6	-	5460.7	128.9
Lang Son	Minh Tien	4.5	4.2	-	11645.5	244.4
Bac Giang	Nghia Hung	5.7	5.1	-	8827.6	67.5