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Sector-Specific Development and Policy Vulnerability in the Philippines

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Sector-Specific Development and Policy Vulnerability in the Philippines

Abstract: Why does a state build institutional capacity in certain sectors rather than others? Despite having gained leverage explaining the emergence of institutions in the developmental states of East Asia, we have comparatively weak accounts for sub-national variation in institutional strength, a much more common phenomenon. Investigating the surprising achievements of the Philippines' National Irrigation Administration, I advance a theory of sectoral success in the face of a generally poor developmental record. I demonstrate that executives will only construct institutional capacity when facing strong political pressure combined with resource scarcity. Such vulnerability, though, permits politicians to exercise discretion in choosing which policies to pursue, allowing them to avoid upsetting their coalitions. Once a politician achieves some degree of policy success, he or she is then able to avoid engaging in similar reforms in other fields. Thus we see pockets of institutional capacity in states that otherwise struggle with developmental tasks.

Key Words: Development, Institutional Capacity, Policy Reform, Philippines, Irrigation

Word Count: 9,997 (inclusive)

INTRODUCTION

The Philippines carries a notorious development reputation resulting from the state's ineffectual responses to policy challenges ranging from improving economic growth to battling corruption to regulating banking (Hutchcroft, 1998; Kerkvliet, 1974; Sidel, 1999). The shortcomings have spawned sharp criticism, including Bello et al.'s (2004) labelling the Philippines 'anti-development,' and Slater's (2010: 93) reflection, 'If the foremost scholars of Philippine political history are unanimous on anything, it is their shared portrayal of the Philippine "state" as barely worth the name.'

In light of these dour observations, it is surprising to find that for over a decade, from the 1970s through the 1980s, the National Irrigation Administration (NIA) of the Philippines was touted as a global leader in irrigation management. During that time, the NIA achieved multiple milestones, including rapid expansion of irrigation infrastructure. Prior to 1970, only about one-quarter of the country's 3.126 million hectares of potentially irrigable land was equipped for water management. By the mid-1980s the NIA had nearly doubled that area, and by 1990, approximately half of all irrigable land was within reach of irrigation (FAO, 2016). Large national systems were not the only beneficiaries; the NIA also promoted and supported communal irrigation systems, expanding them by 137 per cent between 1972 and 1984 (Small et al., 1986: Annex 6). Additionally, the agency became a global pioneer in the push for greater farmer participation in decentralized irrigation management. Schemes that played pilot roles in the policy shift experienced advancements in service delivery and efficiency, with lower maintenance costs, higher yields, and improved farmer incomes (de los Reyes & Jopillo, 1988: 97-8; Meinzen-Dick et al., 1995: 6). Participation promotion programs were expanded to all NIA systems by the late 1980s. Furthermore, the NIA enhanced its ability to fund itself; from 1978 through 1986, the agency enjoyed financial viability despite receiving little or no government subsidy, a rare feat among irrigation agencies (Svendsen, 1992). This was done partly through collecting irrigation service fees from farmers.¹ Fees supplied one-quarter of the agency's operating income by the early 1980s, accounting for up to one-half of operating expenses (Panella 2004b: 93-7; Small et al., 1986: Annex 6).

¹ These fees were the particular object of international aid agency praise. Funding irrigation through service fees, though, remains controversial internationally (Molle and Berkoff, 2007; Oorthuizen, 2003: chapter 6). This essay takes no position in this debate, instead treating fee collection merely as evidence of the NIA's institutional capacity. For instance, with a 60 per cent efficiency rating in the early 1980s, the NIA's fee collection rates were higher than the Bureau of Internal Revenue's income tax collection rates, which hovered at about 30 per cent from 1981-1985 (see Manasan, 1988).

These achievements attracted international acclaim. One World Bank official declared, ‘the NIA is the finest irrigation agency in the whole of Asia and in any developing country in the world’ (quoted in NIA, 1990: 57). The Asia Productivity Organization (1998: 3) said the NIA ‘is in many ways a model institution.’ Araral (2011: 113) writes that ‘by the late 1980s, the NIA had become the undisputed international leader in irrigation decentralization.’ Experts and officials from around the world made the trek to the Philippines during the 1970s and 1980s to study the agency and its reforms, heaping praise upon the participatory nature of its policy framework (Korten and Siy, 1988). Even decades later, the agency’s early ‘successes ... have remained a point of reference in planning and preparing irrigation development efforts in many other countries’ (Eleazar et al. 2005: 291).

The success, though, did not last. After 1986, the NIA became politicized. The technocrats who had directed the agency’s progress departed, and a series of appointed administrators who had little knowledge of irrigation took the helm (Barker and Levine, 2012). Irrigated area stopped expanding in 1990 and actually decreased throughout the ensuing decade. Participation promotion slowed as support within the NIA for farmer involvement diminished (Oorthuizen, 2003). The agency’s ability to extract irrigation service fees also faltered as politicians promised free irrigation water to farmers, and fee revenue dropped from over 40 per cent of operating expenses in the late 1980s to only 26 per cent in the late 1990s (Panella, 2004b). In 1989 the NIA lost its solvent status and has posted losses ever since. Negative bureaucratic incentives chipped away at agency effectiveness, leaving it open to corruption and poor performance (Araral, 2005). By the Benigno Aquino administration (2010-2016), the NIA was seen as a persistent poor performer (Seráfica, 2013; Valente 2014).

How and why did the NIA become a diamond in the Pinoy institutional rough only to later falter? While this is a question specific to the Philippines, it has broad application to the political economy of development literature. Although we have gained theoretical leverage on the emergence of strong institutions in the developmental states of East Asia (Doner et al., 2005; Haggard, 1990; Vu, 2010; Woo-Cummings, 1998), we have less advanced explanations for sub-national variation in state institutions, or as Skocpol (1985: 17) termed it, ‘*unevenness* [of state power] across policy areas.’ In many developing states, politicians choose to improve specific agencies while ignoring others. Sectoral variation abounds, yet we have a paucity of theory as to why this occurs. Thus, in broader terms, my research question can be stated: Why does a state invest in building institutional capacity in certain fields while neglecting others?

Drawing on the surprising accomplishments of the NIA, I develop an account of sectoral success in the face of generally poor institutional performance. Recognizing that crafting institutional capacity is difficult and costly for state leaders, I argue that political executives will only engage in the task when they are faced with policy vulnerability, which is a combination of two pressures: (1) a substantial political threat on a distinct policy issue and (2) resource scarcity. Policy vulnerability, due to its specificity, focuses politician effort on a particular sector rather than investing the resources to create a developmental state. Once a politician attains some degree of improvement, he or she is then able to avoid engaging in similar reforms in other policy areas. Thus we see pockets of competence in developing countries that otherwise struggle with policy tasks. This theory, though, acknowledges that executives exercise discretion in choosing which institutions to cultivate. Environmental factors, coalitional constraints, and personal preferences all contribute. In most cases politicians will choose the path of least resistance rather than engage in extensive institution-building.

Methodologically, I employ theory-building process tracing (Beach and Pedersen, 2013: 16-18, 60-61). I delineate the development of irrigation policy in the Philippines, showing how the emergence of NIA reforms was driven by political concerns over rice prices. Comparing policy responses across administrations, we can see that political pressure alone was insufficient to engender capacity building, as ample state resources offered politicians a relatively easy alternative to reforms. Only when a rice crisis in the early 1970s combined with resource shortages did the Marcos regime engage in building institutional capacity to alleviate these pressures.

Promoting self-sufficiency in rice production via irrigation, though, was only one possible reaction. Other options, such as land reforms, price supports, and input subsidies were given less attention. Thus I employ a brief, preliminary comparison with land reform policies. Here, we have ample evidence that political considerations drove decision-making, but none of these led to greater institutional capacity. This comparison demonstrates the bounded effect of vulnerability in view of coalition constraints.

The remainder of the essay is structured as follows: In the next section, I lay the foundations of the theory. Then, tracing the history of the NIA, I discuss how political pressures drew politicians first toward irrigation expansion before resource shortages forced the development of institutional capacity during the 1970s and 1980s. I also track the dismantling of that institutional capacity during the post-Marcos years. I then analyse the

case, highlighting comparisons across administrations as well as with land reforms. In the final section I discuss the implications of the argument.

PIECEMEAL INSTITUTION-BUILDING

Studies of the unique economic success stories of South Korea, Taiwan, Hong Kong, and Singapore have demonstrated that high levels of institutional capacity, or the ability of state agencies to accomplish policy tasks, propelled rapid development (Amsden, 1989; Evans, 1995; Haggard, 1990; Wade, 1990). Indeed the factor that distinguishes developmental states from their less successful neighbours could be described as both the *breadth* and *depth* of their ability to accomplish policy tasks. For instance, Taiwan was able to target certain industries for growth at the same time as it crafted expertise across the board, even reaching into seemingly less important sectors like irrigation (Lam, 1996; Wade, 1990).

Cultivating institutional capacity, though, is both difficult and highly political (Andrews, 2013). Creating new rules, adjusting policy throughout implementation, and monitoring enforcement imposes high information and transaction costs on policy actors. It also requires assembling a coalition of policy supporters. As political transaction costs increase, the probability of effective reform decreases (Dixit, 2003: 108). These high costs discourage politicians from engaging in reforms to build institutional capacity.

Thus, under normal, or ‘politics as usual,’ situations, politicians have few natural incentives to become involved in building institutional capacity (Grindle and Thomas, 1991: 83-5). Executives generally have a number of other responsibilities that require their time and effort, allowing concerns of the bureaucracy and narrow, clientelistic relationships to dominate the choices of policy makers. This orientation of incentives changes, though, when crises occur. Under crisis situations, ‘policy deliberations and reform decisions of public officials must constantly take into account the vulnerability of the regime and the effect of any change in policy on its political fortunes’ (Grindle and Thomas, 1991: 58). During these times, executives become actively involved in policy-making and implementation, as their own political survival depends on their actions.

The logic of crisis-based reforms led Doner et al (2005: 330-3) to argue that systemic vulnerability, or the combination of broad coalition pressures, resource shortages, and a severe external security threat, prompted states like Taiwan and South Korea to develop broad-ranging institutional capacity and thus become developmental states (See also Woo-Cummings, 1998: 336). Without sustained economic growth, their governments would have fallen. Thus politicians engaged in the intensive process of guiding the economy toward diversification, upgrading, and growth.

This explanation of the emergence of developmental states, although convincing, fails to explain sub-national variation. Developmental states are rare; the vast majority of countries are a hodgepodge of sub-national developmental successes and failures (Doner, 2009). Some sectors may experience excellence while others founder. Certain geographic regions enjoy economic growth while others stagnate. Theories of developmental state formation fail to explain these widely-varying institutional capacities within states (Skocpol, 1985).

I argue that a different type of vulnerability is at play in these cases. Rather than systemic vulnerability, I suggest that sector-specific demands, or *policy vulnerability*, affect the behaviour of policy actors. This type of vulnerability draws on two factors: political threat as well as resource scarcity.

More specifically, I propose that when an executive faces a credible danger of losing office, he or she moves from a 'politics as usual' situation into a 'politics of crisis' situation. Such threats may come from a variety of sources, including protests, upcoming elections, changing weather patterns, floods, fires, droughts, and so forth. The challenges, though, are often particular to a certain policy arena. For example, a drought may cause a politician to feel vulnerable in irrigation policy or food provision but fail to affect education policy. In most cases politicians see these threats as surmountable, given the proper policy response.

When challenges appear, though, politicians prefer to avoid the costly process of building institutional capacity. Thus policy vulnerability must entail a crisis that reaches beyond mere political requirements for policy response. A threat alone is insufficient, as access to abundant state resources allows executives to channel funds and ease the pressure they face on specific policy issues. These funds can buy off supporters or appease protestors and allow politicians to avoid costly reforms and institution-building (Ross, 2001: 332-5). For instance, if political pressure is levelled at an executive due to poor performance in education, he or she could funnel money to build schools in targeted regions rather than become involved in education policy reform. This opportunity disappears when resources are stretched to their boundaries, making building institutional capacity more attractive. The second component of vulnerability, therefore, is resource scarcity.

Thus an executive's vulnerability is a combination of (1) a political threat to his or her tenure in office based on a particular policy issue and (2) a resource shortage. I refer to this as policy vulnerability, differentiated from systemic vulnerability in that no external security threat is necessary and the pressure politicians feel is specific to a policy arena rather than broad coalitional constraints. I argue that politicians who engage in building institutional capacity do so because they are stuck between a rock and a hard place. The combination of a

political threat and limited resources compels policy makers to undertake institution-building, which often includes the monumental task of administrative and bureaucratic changes.

Figure 1. Policy Vulnerability and Systemic Vulnerability

[FIGURE 1 IMAGE HERE]

In proposing the influence of policy vulnerability, I don't suggest that the relationship between its presence and institution-building is completely deterministic. Politicians are able to take advantage of a degree of policy space in which they can choose from a variety of responses to reduce their vulnerability. Indeed, executives seek policies amenable to their political coalitions. They will choose the policy path of least resistance. If a politician is able to build his or her legitimacy based on a certain policy issue that does not upset their core bloc of supporters, they will avail themselves of the opportunity. By achieving some policy success in that specific sector or region, executives may also defuse the vulnerability they face and avoid further reforms. Thus building competence in one policy arena can forestall further development of institutional capacity.

The ideas presented above build on the case study presented below. In the next section, I trace the process through which the NIA developed the institutional capacity to become recognized as a beacon of irrigation reform during the 1970s and 1980s. Following the empirical narrative, I use the lessons gained from process tracing in my case study to flesh out my theoretical claims (Beach and Pedersen, 2013: 16-18).

THE NIA IN THE PHILIPPINES

Here I trace the NIA's genesis and development across three periods. First, prior to the 1970s, rice price concerns drove presidents toward irrigation expansion through reliance on state resources. Second, in the early 1970s a rice crisis combined with resource limits, causing the Marcos regime to initiate reforms at the NIA. Third, during the post-Marcos era policy vulnerability disappeared, leading to the dismantling of the NIA's institutional capacity.

Rice Prices, Presidents, and Political Pressure

In the decades following World War II, fluctuations in rice prices caused regular consternation for Filipino politicians. Surprisingly, relatively few scholars of the Philippines have paid much attention to rice's political effects.² Most have attributed Filipino political

² Other crops, such as sugar, have received more attention (e.g. Billig, 2003; Hawes, 1987; Pepinsky,

outcomes to patron-client relationships, money politics, and political machines (Hedman and Sidel, 2000; Hutchcroft, 1991; Landè, 1965; Scott, 1969; Sidel, 1999). Such approaches, although extremely important, overlook the influence of mass appeals in the Philippine political landscape wherein rice has played a prominent role (Kerkvliet, 1995: 401; Ramos, 2000).³ Surveys conducted during the 1950s and 1960s indicated that high commodity prices were among the top concerns of voters, and ‘in nearly every national election, administrators took extraordinary efforts in importing rice and canned goods to cover up shortages’ (Doronila, 1992: 156; Tadem, 1986). Intal and Garcia (2005: 13-15) further demonstrate that sharp increases in rice prices prior to presidential elections corresponded with unsuccessful bids for re-election. Rice prices could either be a boon or a burden to Filipino executives, with the latter occurring more frequently (Davidson, 2016).

Presidents sought ways to control rice through a variety of government policies. Expansion of the land frontier was the primary source of improvements in production during the Manuel Roxas (1946-48) and Elpidio Quirino (1948-53) administrations, but their efforts failed to achieve self-sufficiency. While Ramon Magsaysay (1953-1957) continued expanding the land frontier, he also promoted sharp increases in irrigation, pushing coverage to approximately 400,000 hectares by 1957, covering over 12 per cent of the land under cultivation. This accelerated expansion matched all that had been done in the previous 40 years. During his administration, consumer prices actually fell, contributing to his popularity.

After Magsaysay’s untimely death, Carlos Garcia (1957-1961) struggled with the impact of high rice prices. His protectionist policies were counterproductive, resulting in reduced rice production, which triggered a rice crisis. Consumer prices for all goods increased by over 4 per cent in 1960, spurring massive imports and criticism of his administration (*Manila Bulletin*, 1961). In the 1961 election, the opposition candidate, Diosdado Macapagal, attacked Garcia on the rice crisis, declaring in campaign materials, ‘We must give our people rice and freedom.’

Upon Garcia’s defeat, the Macapagal administration (1961-1965) faced its own rice challenges. The real price of rice increased 12.6 per cent from 1961 to 1964, and consumer prices jumped by over 8 per cent in 1964, contributing to public disappointment with the

2015).

³ In making this argument, I do not contend that ‘goons, guns, and gold’ did not matter in electoral contests. They most certainly did, especially during the Marcos era. Instead, I highlight that rice prices also played an important role in winning votes (see also Hayami and Kikuchi, 1978: 77; Roth, 1969: 42).

regime. In response, the government centralized irrigation management to improve productivity through the establishment of the NIA in 1964. The effort had limited effect, and the country was forced to import almost 560,000 tons of rice in 1965. Under pressure, Macapagal attempted to save his re-election campaign, pledging cheap rice for consumers as well as price guarantees for farmers (*Manila Bulletin*, 1965). The promises were insufficient to assuage public dissatisfaction; Ferdinand Marcos and the Nacionalista Party swept the 1965 election.

Marcos identified the importance of rice for his success as president and became an ardent supporter of irrigation in pursuit of food security. His presidency serendipitously occurred as the International Rice Research Institute produced the IR8 high-yield strain of rice in 1966. The new variety, though, required more water than its native counterparts; multiple harvests per year also demanded steady water supplies. Marcos thus took a personal interest in the work of the NIA. In 1966 he appointed a technocrat, Alfredo L. Junio, to head the NIA, charging him, ‘You do your job, I’ll take care of the politics. Don’t worry about funds, but make every centavo count’ (quoted in NIA 1992: 42). The NIA embarked on a massive expansion both in terms of staff and irrigated area. In 1966 the agency had only 635 permanent and 2,101 temporary employees; one year later its ranks had ballooned to 1,632 permanent employees and 13,616 temporary employees.

The spread of irrigation, combined with the new high-yield rice, allowed the Philippines to substantially increase production from 1966 through 1970. Yields grew over 11 per cent by 1967, and by 1970 most farmers were using new rice varieties. At the beginning of Marcos’ presidency, the country was a rice importer, but by the end of his four-year term, for the first time in memory, the Philippines exported a small amount of rice. Urban consumers benefited, as real rice prices fell from 1967 through 1970 (Mangahas, 1972: 58).

This increase in production became a major focus of electoral campaigns. In the 1967 midterm elections, the Nacionalista Party emphasized the gains, with the president proclaiming that the country would be self-sufficient in rice by 1969 (*The Philippines Herald*, 1967). The president’s rice czar recorded in his journal, ‘In our victorious post-election cabinet meeting today, the President was full of praises for the success of the Rice Sufficiency Program – one of the reasons for the Nacionalista Party’s victory at the polls’ (Salas, 1985: 93). The stage was set for a successful Marcos re-election campaign in 1969. Basking in his accomplishment, the incumbent touted his appeal with the slogan, “Marcos means more rice!” Rice self-sufficiency contributed to Marcos’ unprecedented achievement

as the first Filipino president to win re-election since independence (Abueva, 1970: 58; Doronila, 1985: 112). Irrigation expansion was vital to this increased rice production (Hayami et al, 1977: 721; Hayami and Kikuchi, 1978: 70-71).

Notwithstanding these successes, the NIA's institutional capacity was still limited. In the first five years of its existence, irrigated area had only expanded from 720,000 to 800,000 hectares, an increase of approximately 2.3 per cent of the potentially irrigable area (FAO, 2016). Government budget transfers and the policy environment discouraged the NIA from seeking farmer participation (Bagadion, 1988). The agency also struggled to collect service fees during its early years (Panella, 2004a; Bagadion, 1988). While irrigation and rice production contributed to Marcos' electoral victory, the zenith years of infrastructure expansion, advancements in farmer participation, and financial viability still lay ahead.

Resource Limits, Rice Crisis, and Reform

After Marcos' re-election, it became increasingly clear to observers that he had bankrupted the country. Through profligate spending and corruption, the administration drained the government budget and ushered in a financial crisis as the peso lost 60 per cent of its value. Public dissatisfaction grew, evidenced by protests, street violence, and an emergent rural insurgency. In 1972, in response to deteriorating security and to sustain his own grip on power in defiance of the constitution's two-term limit, Marcos declared martial law.

A rice crisis added to the turmoil leading up to the authoritarian transition. In 1971 twenty-eight typhoons battered the country and damaged the new irrigation infrastructure that had provided electoral benefits to the administration. Concerns about shortages encouraged rice hoarding, which combined with 1972 floods in Luzon to inflate prices. While Marcos' government had been able to control the price of rice through 1969, by 1972 rice prices jumped to 1290 pesos per ton, a 72 per cent increase in only three years. Consumer prices for all goods jumped over 21 per cent in 1971. This was largely due to the fact that real rice prices increased that year; the first real increase urbanites experienced in five years (Mangahas, 1972: 60). The government was forced to import over 300,000 tons of rice, paying with its dwindling foreign reserves. The threat of continued rice crisis weighed heavily on the new dictator.

Although martial law insulated Marcos from many political forces, he still felt it necessary to justify his power grab to the masses using the claim that basic necessities such as rice were more valuable than freedom (Wurfel, 1988: 154). Here he argued that centralized authority could lead the country toward self-sufficiency; this claim, though, was threatened by skyrocketing rice prices. The real cost of rice in Manila was still increasing as supplies

lagged due to droughts, floods, rice hoarding, and international price fluctuations. The price would peak in 1974 (Boyce, 1993: 100-1). At the same time, consumer prices across the board jumped over 34 per cent.

To reign in prices, Marcos embraced a new policy push called Masagana 99, which relied on cheap credit, fertilizer subsidies, and extension services to increase rice production. Marcos claimed that the government program would serve to alleviate the suffering caused by rice shortages (Marcos, 1973). Masagana 99, though, was contingent on irrigation expansion. High-yield varieties had high water requirements, and achieving multiple crops a year was only possible in irrigated areas. The expansion of irrigation under NIA supervision was imperative to increased rice production (Barker, 1984: 12-3; Hayami and Kikuchi, 1978: 70-1).

At this time, though, Marcos was constrained. With limited government resources, he could no longer spend his way into self-sufficiency, although he did his best via the extension of credit through the Masagana 99 program. This spending, though, was conditioned on the belief that most of the expenses would be recouped through loan repayment; time would prove this a false hope. Beyond cash limits, by the 1960s the Philippines had depleted its land frontier. Prior to that period, much of the expansion of rice production was based on cultivating new land. With an exhausted land frontier and budget deficits, Marcos could not rely on these two erstwhile solutions to his food production problem. With a rice crisis as well as resource limits, the administration faced policy vulnerability in the irrigation sector. Increasing yields as well as the efficacy of irrigation was vital to the continued legitimacy of the regime. In response, Marcos initiated a series of major reforms to the NIA from 1974 through 1980.

The most important of these was Presidential Decree (PD) 552, issued on Marcos' birthday on 11 September 1974, which greatly expanded the scope of the NIA, raising its capitalization from 300 million to two billion pesos. It also granted the NIA the ability to borrow money directly from international donors with a government guarantee as well as control over all irrigation fees, administrative charges, and other sources of income (Panella 2004a). The NIA could also now delegate management of irrigation systems to farmer-led irrigation associations. These changes gave the NIA greater access to financial resources in addition to the charge to recover costs from farmer groups, generating incentives for the agency to become more responsive to farmers (Bagadion, 1988).

Another reform, PD 1067, created the Water Code of the Philippines. The legislation, along with changes made to the code in 1976, granted legal water rights to irrigation

associations. It also strengthened the organizations, as individuals were mandated to obtain their water through the groups (Araral, 2006; Panella, 2004a). The new powers of the irrigation associations forged a policy environment conducive to farmer participation in irrigation management. Other institutional changes increased service fee rates, provided the NIA authority to recover capital costs, and created the National Water Resources Council with oversight responsibility. In 1980, the NIA was enlarged again with PD 1702 raising its capitalization to ten billion pesos and granting it authority to charge a 5 per cent overhead fee on capital projects to help pay part of operations and maintenance costs.

These reforms were designed to make the NIA more effective, efficient, and financially independent. As a result, the agency achieved net profitability in 1979 despite shrinking government subsidies (Svendsen, 1992). Even when government funds disappeared altogether in 1982, the NIA remained solvent. Operating income increased dramatically, thanks to increased irrigation fee collection as well as alternate income sources created via the new policies (Panella, 2004b: 93-7). The Marcos reforms had decreased direct government costs, opened opportunities for the NIA to fund irrigation expansion, and provided incentives for improved service.⁴ Thus, under the watchful eye of the Marcos administration, the agency's ability to achieve policy tasks expanded.

The most visible of these tasks was the massive expansion in land equipped for irrigation pursuant to the NIA's drive for rice self-sufficiency (NIA, 1990: 84-5). From 1974 through 1986, the area equipped for irrigation grew from 990,000 hectares to 1,460,000 hectares, an increase from 31.7 to 46.7 per cent of all potentially irrigable area (FAO, 2016). This substantial growth in irrigated area continued until peaking in 1990 at 1,550,000 hectares, or 49.6 per cent of the estimated 3.126 million hectares of potentially irrigable land.

In the effort to improve financial viability and service provision, irrigation officials were also pushed toward enhancing farmer participation in irrigation management, which the NIA pursued through establishing irrigation associations (Bagadion, 1988: 8-11; Bagadion and Korten, 1985: 76-77). Within a few years, pilot projects in farmer-agency cooperation developed into nation-wide policies. Loans from the World Bank and USAID were used to expand the coverage of irrigation associations beginning in 1981. In 1983 the NIA also changed its accounting system to reflect greater reliance on farmer organizations and reward

⁴ It is important to recognize the essential role technocrats, like Alfred Junio and Benjamin Bagadion, as well as international donor agencies played in the NIA's development (Korten and Siy, 1988; Panella, 2004a). Nevertheless, it was the 'political will' of Marcos that created opportunities for technocrats and international experts to act, thus my focus remains on the political executive.

officials who worked with farmer groups (Bagadion, 1988: 17). The implementation of participatory management expanded from communal systems to larger national systems in 1984. The NIA's Institutional Development Division was charged with establishing and strengthening new irrigation associations in the national systems (Panella, 2004b: chapter 3).

By 1986 participatory programs reached thirty-seven nationally managed systems covering about 35,000 hectares. The success of the program was widely documented, with participatory projects experiencing reduced maintenance costs, improved yields, and increased farmer incomes (de los Reyes & Jopillo, 1988: 97-8; Meinzen-Dick, 1995: 6), and in 1987 the scheme was expanded to all national irrigation systems. By the early 1990s, international loans from the World Bank and the Asia Development Bank were obtained to expand the coverage of irrigation associations; by 1994, 70 per cent of the area of large-scale irrigation systems was contracted out to farmer organizations.⁵

The heyday of the NIA, though, was coming to a close (Oorthuizen, 2003). The price of rice on the world market dropped in the early 1980s, making it less profitable for Filipino farmers to produce rice and less costly for the government to import the cereal. Small holders faced high fertilizer prices combined with falling profits, and they turned away from rice. In 1983, this combined with tropical storms and a prolonged drought to hinder rice production. By 1984 the country was again importing rice and vulnerable to global price fluctuations. Prices for consumers increased; in 1985 alone, rice jumped from 3900 pesos per ton to 6710 pesos per ton, a 72 per cent increase. Spiralling prices contributed to rising unrest against the Marcos administration. When Marcos called snap elections in 1986, he could no longer rely on claims of rice self-sufficiency and cheap prices for legitimacy. Indeed, where his earlier speeches were peppered with praises for increased rice production, his 1985 State of the Nation address included an almost apologetic explanation for rice imports as well as a promise of a better harvest (Marcos, 1985; Tadem, 1986). Marcos turned to massive electoral fraud; when the military withdrew its support for his regime, the end was nigh.

Policy Vulnerability Disappears

With the transition to democracy, the government's long-time reliance on food production for legitimacy disappeared. Unlike Marcos, the politicians who followed found

⁵ Most farmer participation occurred in smaller systems, and full turnover of irrigation systems to farmer control was rare. By 2002, only about 15 per cent of irrigation associations had complete control over their systems (Araral, 2005: 143). Joint management has been much more common (Wijayarathna and Vermillion, 1994). Also, farmer participation was limited in that irrigation expansion was concentrated among relatively wealthy farmers in rice-producing areas rather than the marginalized farmers who threatened the state through rural insurgencies (Hawes, 1990).

other matters upon which to build support. Legislators turned to other issues like pork-barrel projects and regional identities as they competed for office. Vulnerability declined as global rice prices were relatively low and the country could buy for much less than it could produce rice. Agricultural production, and thus irrigation, garnered less attention from political leaders (Ramos, 2000).

This shift became apparent early in the transition. Corazon Aquino (1986-1992) quickly accepted the resignation of the upper echelon of NIA technocrats who had extensive experience with irrigation and the agency. In their place she appointed officials from the private sector with little or no experience in irrigation. The president showed scant concern for the continued success of the NIA's participatory programs. Officials within the NIA blamed this on Aquino's determination to exploit the agency's resources to provide patronage to her supporters.⁶ The new appointees were ineffective, and most had to be replaced within one year.

Filipino politicians then began to demolish the foundations of the NIA's institutional capacity. Politicians in the legislature proposed House Bill No. 26572 in 1989, which would abolish irrigation fees, the instrument that had partially ensured the NIA's reliance on farmer participation. Instead of relying on fees, the NIA would rely on subsidies from the central government. While attractive to voting farmers, the changes would eviscerate the mechanism that forced the NIA to focus on farmer participation and service provision. The initial bills were not successful, but the idea of relieving farmers from irrigation service fees proved popular among politicians. By the late 1990s, the NIA felt less government pressure to collect fees. In fact, Joseph Estrada, during his campaign for the presidency, promised to abolish irrigation fees as part of his pro-poor campaign. When he came to office in 1998, he did just that, although the order was not implemented prior to his ouster in 2001. Nevertheless, payment of irrigation fees dropped significantly, and the NIA's revenue from farmer fees fell almost 30 per cent during Estrada's first year in office.

By the end of the 1990s, the NIA no longer had the same ability to accomplish policy tasks (Asia Productivity Organization, 1998: 3). The land area equipped for irrigation remained stagnant in the two decades following 1990, even shrinking as systems fell into disrepair. Irrigated area would only surpass its 1990 range in 2011 (FAO, 2016). The NIA also lost its financial viability throughout the 1990s, falling back on government subsidies as

⁶ One official recalled, "During [Aquino's] time the NIA was robbed of [its] money... she appointed people from her hometown." Author interview with NIA official, Quezon City, February 25, 2014.

‘operating losses ranged from 20 to 73%’ (Panella, 2004a: 122). During the same period, the agency was perceived to be riddled with corruption, becoming one of the top five agencies for corruption complaints between 1993 and 1998 (World Bank, 2000). Irrigation service fee collections dropped precipitously, averaging only 44 per cent from 1991 through 2000 and hitting a low of 34 per cent in 1998, which resulted in chronic underinvestment. Partially due to budget shortages, the focus on farmer participation also faltered (Araral, 2005). Training efforts to promote farmer participation decreased by as much as 70 per cent between 1999 and 2001, and a survey of irrigation associations found that only 39.5 per cent could be considered functional (JICA, 2003). A decade later, the Benigno Aquino administration expressed repeated disappointment with NIA performance, appointing three different administrators in only four years.

The reduction in political pressure for rice production permitted politicians to pay less and less attention to the institutional capacity of the NIA. As oversight faltered, negative bureaucratic incentives began to determine irrigation policy (Araral, 2005), resulting in a situation resembling Grindle and Thomas’ (1991) description of a ‘politics as usual’ environment.

DISCUSSION

This case study highlights a number of issues that can contribute to our understanding of the emergence of sector-specific institutional capacity in a country that experiences relatively few developmental achievements. First, Filipino executives from Roxas to Marcos felt vulnerable due to concerns over rice prices. Presidential elections were particularly susceptible to commodity fluctuations. This political pressure led executives to engage in a number of policy efforts to control rice prices and increase domestic supplies (David and Balisacan, 1995: 239-41; Doronila, 1992: 156), among the most effective of which was irrigation promotion (Hayami et al., 1977: 720-21). Even so, most presidents failed to translate this pressure into institution-building. Instead they relied on resource endowments, including buying rice from overseas, in largely unsuccessful attempts to negate commodity fluctuations (see Davidson, 2016).

Second, over time the resource abundance of the country changed. The first five presidents, from Roxas to Macapagal, found ways to enhance irrigation systems, but much of their effort to increase rice production relied on expanding the land frontier. This option, though, was exhausted by the mid-1960s, and politicians were forced to seek other opportunities for increasing rice production. The Macapagal administration initiated institution-building by establishing the NIA, but the agency’s original mandate was based

primarily on construction. After Marcos came to power, he promoted rapid spending on irrigation infrastructure, funded by the public budget. While such spending provided tangible results, it was unsustainable. Only during Marcos' second term when the Philippines experienced a financial crisis did he turn to building institutional capacity in irrigation.

Thus a combination of forces appears jointly necessary to compel an executive to engage in building institutions. The constant pressure for increased rice production was insufficient alone. Only when Marcos faced a rice crisis paired with resource limits did he choose to reform the NIA. The modifications to the NIA created an environment that encouraged rapid infrastructure expansion, improved financial viability, and obliged the agency to cooperate closely with farmer organizations. Marcos also backed technocratic leadership in the NIA, keeping it relatively protected from domestic politics (Panella, 2004a: 114-5). The agency continued to expand irrigation infrastructure, promote farmer participation, and enhance its own financial viability throughout the late 1970s and early 1980s, earning praise from international experts. When the government changed hands, though, so did the pressures on politicians. As democratically-elected politicians chose to politicize the agency and court voters by removing the monitoring mechanisms placed on the NIA, they eviscerated the institutional rules that made it successful (Araral, 2005; Panella, 2004b). Without the pressure of a political threat linked with resource limits, the Philippines' sectoral success with irrigation management quickly faded.

These findings provide some parallels to the systemic vulnerability argument posed by Doner et al. (2005) with some important differences, illustrated in Figure 1. While systemic vulnerability combined a triple threat of popular unrest, security concerns, and budget constraints wherein the entire existence of the state might be in question, in this case only Marcos' tenure was in danger. Even with military backing, the transition to authoritarianism had to gain broad enough acceptance for his rule to survive. At the same time, he faced increasing pressure to rein in rising commodity prices. Marcos knew from past campaign experience that his rice sufficiency program was a political winner; he believed that relying on it could provide necessary legitimacy. The easiest way to ensure rice production was through increasing the availability of irrigation (Hayami et al., 1977: 720-21). This, though, necessitated access to resources, which were then limited.

Thus policy vulnerability consists of a political threat based on a specific sector combined with resource limits. In other words, the political threat was a necessary condition, but alone it was insufficient to promote reforms. Political threat and resource limits were jointly necessary to compel development of institutional capacity. Without the resource

constraint, Marcos could have easily spent his way into self-sufficiency, as he had done during his first term in office, or relied on importing and subsidizing rice prices as his predecessors had hoped to do. Building institutional capacity in the NIA was essential to expanding rice production while lowering the state's costs associated with irrigation.

This vulnerability, then, did not reach all sectors. It was concentrated in a specific policy niche. It was not 'systemic vulnerability' but a more targeted 'policy vulnerability.' By responding to food security challenges, Marcos developed sector-specific institutional capacity that was relatively rare for the country. The question then arises as to why the regime failed to enhance the institutional capacity of other agencies. Indeed, during the early years of martial law, Marcos privileged technocratic administration across the board. Unlike the NIA, though, most reforms quickly lost their lustre (Wurfel, 1988: 135-138).

Three explanations emerge for this specificity. First, Marcos was able to channel his success in rice production to alleviate alternative pressures he experienced. By proclaiming rice sufficiency, the other political threats which surrounded the regime diminished. Thus the administration could avoid the potentially costly process of seeking reform in other areas.

Second, political leaders have some leeway in deciding which policies to pursue. An alternate leader may very well have been prone to choose urban development, education, or industrial promotion. Marcos, though, appeared to place special emphasis on the goal of rice production, indeed, during one speech he stated, 'rice is something I dream about' (Marcos, 1967). Throughout his political career, he pushed for national self-sufficiency in rice. As he did, though, he chose to focus on irrigation as the 'keystone' to his rice policies. Even from the hospital after gall bladder surgery in 1967, he pressed his administrative staff to pay special attention to irrigation (*Manila Bulletin*, 1967). Another leader might not have emphasized the irrigation aspect of rice production to the same extent, as Marcos' predecessors demonstrate. Thus there is an individual element driving policy choice that lays beyond the realm of clean and elegant theorization (Grindle, 2004: chapter 3).

Third, and perhaps most importantly, Marcos faced political constraints that channelled him toward irrigation reforms. In this case it is useful to consider another policy issue closely related to rice production, which was subject to some of the same pressure as irrigation. Prior to Marcos' administration, much like rice price concerns, land reform had long been on the political radar. The Huk Rebellion prompted politicians to consider land redistribution as a possible solution to the demands of the rural poor. Because of the link with the Huks, the policy was considered an issue of security, and the task was given to the military, which precluded the development of institutional capacity (Slater, 2010: 102). The

government at the time had little actual interest in using land reform to increase agricultural productivity.

Later, as Marcos took the helm and promoted policies for the enhancement of domestic rice production, his own appointee to head the rice program suggested that land reform be included as part of the policy drive for sustained agricultural productivity. This elicited no response from the president, 'for political reasons' (Salas, 1985: 108-9). Support from the elite, land-holding caciques was vital to the first Marcos administration, and any push toward serious land reform might alienate them. In his first term, only twelve estates were purchased for redistribution, and only 31,463 tenants received leasehold contracts; a far cry from the 350,000 Marcos had promised (Putzel 1992: 120). Building institutional capacity necessary for land reforms was largely ignored, despite the strong commitment to achieve self-sufficiency.

Indeed, political considerations, not rice production, served as the entire impetus behind the push for land reform after Marcos declared martial law in his second term. Kerkvliet (1974: 288-90) argues that Marcos had multiple reasons for embracing the rhetoric of land reform, including diminishing the 'Communist' groups in rural areas, limiting his political opponents as well as winning over foreign observers (see also Putzel 1992: chapter 4; Wurfel, 1988: chapter 6). Even so, land reform was never a serious component of his policy reform agenda. Presidential Decree No. 27, which mandated land reform, was 'riddled with loopholes' and poorly implemented (Boyce, 1993: 135). By the end of the Marcos regime, only about 13 per cent of the land subject to transfer had even been issued a certificate of land transfer. Actual rates were even lower.

Despite the fact that both irrigation and land reform would have served to increase rice production and, arguably, would have fit well in a complimentary policy package, land reform was largely neglected. As Putzel (1992: 153) writes, Marcos had 'room to manoeuvre and the opportunity to choose [his] ... approach to reform.' Transforming irrigation was the much easier choice. While strong interests in the Filipino political landscape constrained the implementation of land reform,⁷ the NIA had few champions who might have resisted institutional changes. The agency was relatively young, and its leadership was firmly under the control of the administration. Beyond this, the characteristics of the bureaucracy made it subservient to politicians (Carino, 1989). Reforming a deferential organization served as a

⁷ For further discussion of the powerful interests shaping Marcos' choices in agriculture policy see Hawes (1987).

relatively easy task when compared to upending entrenched elite interests that concentrated land ownership in few hands. Also, one of the main impetuses behind land reform, increased agricultural production, was already in progress with the expansion of irrigation systems, distribution of high-yield rice varieties, and access to credit. These policy efforts had relieved any real pressure the government may have felt for land reforms, at least in regards to improving rice production.

Thus, part of the story of sector-specific development could be attributed to politicians choosing which reforms evidence the fewest costs in order to accomplish the same goal (see also Hayami et al., 1977). When facing political threats combined with resource limits, Marcos was forced to find a relief valve that would not upset his coalition. Building the institutional capacity of the NIA was part of this effort.

CONCLUSION

The experience of the NIA exemplifies policy makers' decisions to create specific institutional capacities while neglecting others. Policy vulnerability, i.e. a combination of concentrated political pressures linked with resource limits, can compel an executive to develop institutional capacity. Even so, as the brief comparison with land reform indicates, politicians exercise some discretion in choosing their policy response. They will focus on areas where they face relatively little resistance. Success in one sector, such as irrigation development, may alleviate pressures in other fields sufficiently so that the politician can avoid implementing further reforms. Thus we observe within-state variation in institutional capacity.

The theory lends itself to other contexts. For example, the irrigation agencies of both Thailand and Indonesia have failed to develop similar institutional capacities to achieve financial viability or encourage farmer participation, despite having stronger developmental records than the Philippines. The theory advanced here suggests that the lack of policy vulnerability in irrigation has precluded much politician involvement in irrigation policy, allowing the bureaucracy to control the sector. Thailand, for instance, has never experienced pressure to increase efficiency and efficacy of irrigation, thus the country's irrigation policies remain based on the 1939 People's Irrigation Act, the 1942 State Irrigation Act, and the 1962 Dyke and Ditches Act. There has been no substantial change in legislation regarding irrigation in over 50 years, nor have politicians exercised much control in the matter (Ricks, 2015: 196-8). Indonesia has experienced some pressure from international donors, but politicians, especially at the national level, are spared any real demands to improve irrigation efficacy. This has resulted in only temporary efforts to increase the capacity of the irrigation

agency in response to international donor requirements (Bruns, 2004; Ricks, 2016). Of course, these are only brief comparisons, but they suggest that sector-specific policy vulnerability has explanatory power in other contexts.

This has broader implications for our understanding of developing states. While systemic vulnerability can explain the rare East Asian miracles, we need to develop better explanations of the middling successes, developing states which have experienced some progress but don't move into the realm of the developmental state. Policy vulnerability is one step in this direction. Understanding the emergence of institutional capacity as a policy response to a combination of political threats *and* resource limits may help better explain why the middle income trap is so difficult to escape.

The specificity of policy vulnerability also suggests why middling successes may falter. Developing country reforms are often fleeting. They come and go with alarming frequency. If we look at them in terms of vulnerability, we can better understand why a reform issue lasts only a few years. Once the conditions and individuals that prompted the initial endeavour have changed, then it is only logical that the reforms will falter. When vulnerability disappears, so will the efforts to build and maintain institutional capacity.

Expanding on this point, the institutional capacity of the state can change according to the degree of vulnerability experienced by policy actors. The NIA was established with a focus on the relatively easy tasks of construction and rehabilitation. Reforms in the early 1970s led to a boom in infrastructure expansion as well as the ability to accomplish a number of policy tasks. Later, as politicians no longer felt compelled to monitor the agency, bureaucratic incentives took hold, and the NIA lost much of its prior strength. Thus when a state develops capacity in any activity, it is no guarantee that such capabilities will persist without some continued external pressure. Institutional capacity ebbs and flows with political tides.

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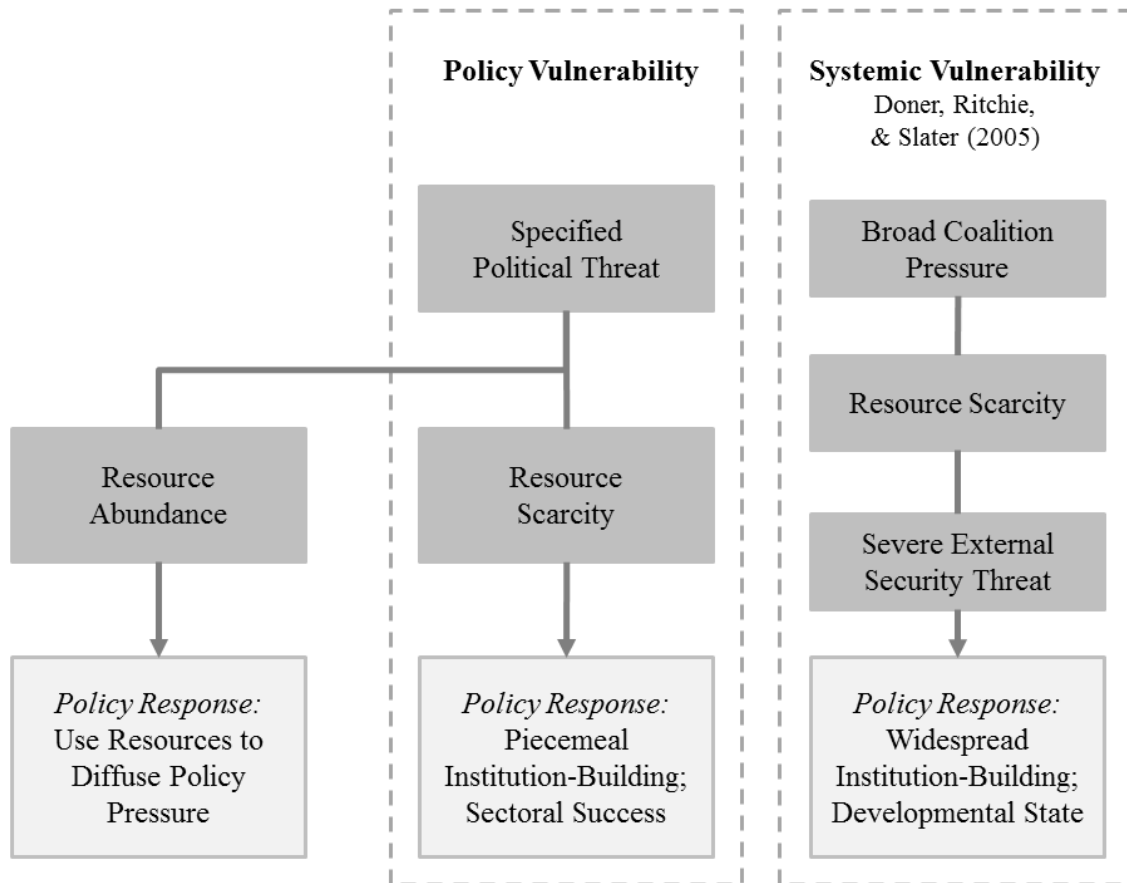


Figure 1: Policy Vulnerability and Systemic Vulnerability