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Migration as an Economic Activity: the Efficiency of Population Redistribution in Viet Nam

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Abstract

Migration policy in Viet Nam views land and populations as economic resources. At reunification, these resources were not evenly distributed, thus the migration policy of the newly formed Socialist Republic of Viet Nam sought to redistribute them in a more efficient manner. However, this viewpoint does not take into account environmental and social factors. These factors include, but are not limited to issues surrounding the suitability of land for cultivation, the choice of crops to be cultivated, the infrastructural supports provided to migrant communities, and the lack of capital being put into the system.

As a consequence of these factors, planned migration in Viet Nam is not an efficient use of resources. This inefficiency can be represented using an ecological utility theory of migration coupled with a supply and demand model. This inefficiency results from a contrived ecological utility and insufficient resource input. Reassessing ecological utility and increasing resource input can negate it.

This paper speaks on the inefficiencies of population redistribution in post-war Viet Nam in general terms, as well as using specific examples gathered from fieldwork conducted in Say Giang hamlet, Vinh Tri village, Vinh Hung district, Long An province.
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The Context of Population Redistribution in Post-War Viet Nam

April 30, 1975 saw Viet Nam a unified and independent nation in economic shambles with a soaring poverty rate. Compounding the problem was a food shortage, concentrated primarily in the North; Viet Nam was importing 1.5 million to 2 million tons of food per year (Do 1998). If this united country were to survive in the coming years, its government would have to successfully reconstruct the nation’s economy and boost agricultural productivity. Post-war Viet Nam was not a capital-rich nation. What it did possess was land and a labor force. The problem was that the two resources were not evenly distributed. Vast amounts of land in the highlands and the Mekong River Delta remained uncultivated while populations in the Red River Delta and southern cities continued to grow. To the government of Viet Nam the solution was simple; redistribute the labor force according to land availability.

Hoang (1998: 73) states that the objectives of the Fourth (1976) and Fifth (1982) National Congresses of the Communist Party (Wikipedia 2006) included thes “rational distribution of labor according to land availability”. Those areas that were deemed to be under-populated and having land suitable for food production were labeled New Economic Zones (NEZs). It was to these zones that individuals from densely populated regions were encouraged to migrate. The purpose of the NEZs, as interpreted in this paper, was three-fold: to open up land for cultivation and development; to alleviate poverty; and to facilitate population redistribution.

The perceived need to redistribute the population stemmed not only from the historic concentration of labor in the Red River Delta but also from several additional political factors. During the American War, individuals in the South fled the fighting in
the countryside for urban centers such as Sai Gon (Zhang et al. 2001). The second 5-year plan, spanning 1976-1980, placed a high priority on repatriating these refugees to NEZs (Brockerhoff 1998). By also bringing individuals down from the Red River Delta into the NEZs, the government gave itself an additional tool with which to combat any potential subversiveness within the population and to introduce northern methods of collectivization to the previously capitalist South (Zhang et al. 2001). Within highland regions, population redistribution was seen as a way to change the swidden agricultural practices of ethnic minorities and introduce a sedentary lifestyle (Zhang et al. 2001). The government also hoped to use NEZs to national defense ends. While the American War had ended, Viet Nam continued to suffer from border disputes with Cambodia. By locating NEZs in “strategically sensitive areas” (Zhang et al. 2001) the government could use migrants as a type of border defense (Hardy 2003).

In this context, migration policy in Viet Nam can be seen as stimulating population movement so as to create a demographic change for an economic end. This change spanned a social and environmental spectrum from densely to sparsely populated regions; from land with lesser to greater utility, both agriculturally and politically (Zhang et al. 2001). In terms of policy, the stated goal of the government, at the beginning of the 1980s, was to relocate ten million people by the year 2000 and reclaim five million hectares (ha) of uncultivated land located in the NEZs (Dang et al. 1997). To achieve these goals, policy-writers had to make the prospect of relocation an attractive and viable option. The orchestration of migration policy therefore relied heavily on voluntarism through a spirit of nationalism and by providing economic support and incentives to those who did volunteer to resettle (Do 1998). The success of resettlement policy relied on
“…combining the needs of society with the voluntary decisions of each family.” (Hardy 2003: 241).

Post-war Viet Nam did indeed have a spirit of nationalism running through it. However unattractive the idea of resettling to a remote location might have sounded, when it was put in terms of one’s nationalist duty, people were reluctant to back down from the task. Supplementing the call to duty were the economic supports that the government promised to those who would volunteer to go. They would not be left on their own; if they were willing to help their nation, their nation would be willing to help them. These incentives were particularly tantalizing to those suffering from post-war poverty and unemployment in the North (Zhang et al. 2001). Dr. Do Van Hoa of the Ministry of Agriculture and Rural Development (MARD), in an interview, spoke on the recruitment process undertaken by the local People’s Committees [sic] to procure volunteers for the NEZs. The People’s Committees [sic] were in touch with people’s needs and made available to them information about NEZs and the economic benefits available, focusing on those who would be most tempted to leave, the impoverished and unemployed. Their needs were then relayed up the chain of command to the district and provincial level. Through this system, those with the most reason to leave were those targeted to migrate (Do 2006).

The distribution of support fell under the auspices of the Department for Resettlement and New Economic Zone Development, within MARD. Do (2006) provided a very concise view of what that support entailed. The basis of this assistance was to provide land and a job to incoming migrants. By registering with the local governments, they made themselves eligible for additional assistance, as needed, in the
form of low interest loans, healthcare, and education (Do 2006). Other specific forms of assistance included food for the first six months to one year and assistance with cultivation (Hoang 1998).

Migrant’s responses to these incentives stemmed from their own socio-economic position. As previously stated, one purpose of NEZs was poverty alleviation, and recruitment for volunteers focused on and utilized this aspect of the situation. Migrant populations cannot then be viewed solely as economic resources within a development policy, but must also be seen as individuals pursuing a socio-economic activity on their own behalf (Hoang 1998). In the eyes of the Vietnamese government, population redistribution was the rational utilization of resources (Hoang 1998). To those populations that chose to migrate, it was a livelihood strategy (Dang 2005). Farmers trying to eke a living out of ever shrinking plots of land in the Red River Delta had little capital and few other resources outside of their own labor with no prospect for more in the future. It is here that a convergence of needs took place, from which Vietnamese migration policy took shape. “Resources were not only unavailable, but the programme was intended to create them. People, of which there was no shortage, were the main strength in this strategy for economic growth, its main raw material.” (Hardy 2003: 255). To the government, their purpose was to bring land under cultivation, end reliance on imported food, and make Viet Nam a resource-rich nation. To the people themselves, it was a chance for a better life.
Planned Migration in Say Giang Hamlet, Vinh Tri Village, Vinh Hung District, Long An Province

The Plain of Reeds, or Dong Thap Muoi as it is known in Vietnamese, is an extensive wetland area within the Mekong River Delta. It consists of an area of 500,000ha and is the lowest geologic zone in the Mekong River Delta (Nguyen V. S. et al. 1998). This plain falls within the provinces of Long An, Tien Giang, and Dong Thap (Nguyen V. T. 2006). The province of Long An itself covers an area of 4492 square kilometers (449,200ha) (Do 1998) and is situated along the border with Cambodia. (Please refer to the map in Appendix A for the exact location of Long An Province and Vinh Hung District).

After the American War, provincial agreements were made between the provinces of the South and those in the North. As a payment for their assistance in fighting, the South agreed to have areas of land within it designated as NEZs and receive populations from their respective “sister” provinces in the North. Due to issues of population density and land availability, this arrangement was mutually beneficial to both the North and the South (Huynh 2006). Long An had an agreement with the northern province of Hai Duong, located just outside of Ha Noi, within the Red River Delta (Householder E 2006).

The Plain of Reeds was a vast and for the most part uncultivated region of the Mekong River Delta. During the American War, defoliants were responsible for a great loss of tree species, particularly Melaleuca, and efforts to drain the region were begun. After the war, these efforts continued for agricultural purposes. The Plain was home to large stretches of wild grasses, including rice (Oryza sativa) and many animal species, particularly avifauna such as the endangered Sarus crane (Grus antigone sharpii) (Le and Scott). When the Vietnamese government began designating NEZs, the Plain of Reeds
ceased to be an expansive wetland and became a new agricultural frontier. One of the goals of economic development and migration policy in Viet Nam was to bring this area of the Mekong River Delta under cultivation. This was a daunting task that required the continued clearance and drainage of vast amounts of wetland and was facilitated by peppering the region with NEZs (Do 1998).

In Long An Province, the fifteen year span from 1981-1996 saw vast amounts of agricultural development, the direct impact of designated NEZs and subsequent migration into the region. 26,228 individuals had migrated to Long An from other provinces. 111,692.5 ha were brought under cultivation, 101,706.5 ha of that being rice. Rice production increased from 549,000 metric tons in 1985 to 1,015,800 metric tons in 1995. Of the rice being produced in the region, migrants were responsible for cultivating thirty-five percent. Average annual per capita food production increased from 498.9 kg in 1985 to 798.9 kg in 1995 (Do 1998). When considering the numbers from Long An, the efforts to agriculturally develop the Plain of Reeds would seem a success. Furthering the agricultural development of the region was/is the Agricultural Research Center for Plain of Reeds (ARCPR), located in Moc Hoa District, Long An Province. The Center was founded in 1983 as one of seven branches of the Institute for Agricultural Science of South Viet Nam located in Ho Chi Minh City (Nguyen V. T. 2006).

In order to better understand the agricultural development of the Plain of Reeds and its impact on both the environment and the people who migrated there, four days were spent in Vinh Hung District, Long An Province. Vinh Hung District is located four kilometers from the Cambodian border and is remote and isolated; there is only one road running into or out of the town of Vinh Hung (Nguyen D. T. 2006). Rice fields span
much of the land that is not occupied by the town or small farmhouses. Vinh Tri Village is located four kilometers outside of the town of Vinh Hung. Eight to ten percent of the residents are migrants from the Red River Delta. They are part of a group of 100 households from the northern province of Hai Duong who migrated between 1990 and 1991. Fifty of the original households left Vinh Tri Village; most of them returned to Hai Duong Province (Le 2006). Those that remain live in several hamlets located within Vinh Tri Village.

Say Giang Hamlet lies along a red dirt road that was constructed two years ago (2004). Until then, the canal was the only means of transport into or out of the hamlet (Le 2006). Interviews were conducted with ten householders that had migrated from Hai Duong Province. Questionnaires were distributed to an additional twenty-five householders. (For particular information pertaining to the conduct of interviews and the distribution of surveys, please see Appendix B. For a copy of the interview and the questionnaire, please see Appendices C and D.) While data from these collections cannot be used to reach any statistical conclusions, the information that they proffered provides insight into the process and effects of planned migration and economic development that the researcher believes are relevant to the argument of this paper.

Of the thirty-four households considered†, all but two came in response to recruitment for the NEZ and the development of the Plain of Reeds. Those two households that did not give this as their reason for migration both migrated at a later date (1995 and 1998). They listed their reasons for migration as more land with fewer people and better land for farming. When asked about the biggest differences between their

† While information was gathered from a total of thirty-five households, a household that had migrated from An Giang province, which is located within the Mekong River Delta, completed one survey. As this paper is concerned with migration from the Red River Delta, this survey was not considered.
homes in the South as compared to their homes in the North, the most frequent answers were that there was more land (fifteen out of nineteen considered\(^1\)), fewer people (eight out of nineteen considered), and that the conditions for farming were better (eight out of nineteen considered). These reasons correspond exactly to the motivations for development of NEZs as laid out in migration policy.

It would appear that Vietnamese migration policy and Vietnamese migrants were responding to the same pressures, primarily those of decreased land availability, increasing population density, and the need for more productive farm land. The economic interests of the government corresponded to the economic interests of the people in question. The process of recruitment had worked. Those migrants which were interviewed all alluded to poor economic conditions in Hai Duong Province, the prospect of a better life in Long An Province, and all but one mentioned the benefits received from the government. One householder specifically mentioned his belief that the area would develop in the future (Householder F 2006). The number of householders which mentioned the increased land availability in the Long An Province is telling. They were suffering from a perceived need for more land. The government, by opening up land for agricultural development in and facilitating movement to the NEZs was able to fulfill this need. In simple terms, resources (in this case, populations) were redistributed.

The issue of agricultural development and migration is not as simple as the redistribution of populations in accordance with land availability. While this serves to fulfill a basic need on behalf of both the government and the population in question, it does not consider other environmental or socio-economic factors. Land and population

\(^1\) The nineteen households considered consist of the ten interviewees, and nine of the questionnaires. The two questionnaires completed by households that did not migrate in connection with NEZ recruitment were not considered. The other thirteen questionnaires not considered were incomplete.
are more evenly distributed, but these external factors serve to create inefficient uses of these resources. To examine the overall effectiveness of population redistribution in the case of the agricultural development of the Plain of Reeds, it is important to consider these inefficiencies.

Sources of Inefficiency Resultant From Population Redistribution in Post-War Viet Nam

Land Suitability

One of the central premises of the development of NEZs was that migrants from provinces with little arable land would be sent to areas with "suitable land and conditions for agricultural production." (Do 1998: 226). While Hai Duong and other provinces in the Red River Delta were certainly suffering from a shortage of arable land due to increasing population density, the availability of land with conditions suitable to agriculture is questionable. The government worked off the supposition that any uncultivated land was suitable for agricultural production (Do 1998). This included areas such as the Central Highlands and the Plain of Reeds. Given the environmental results of increased cultivation in these areas, a redefining of "suitable" is in order.

The Central Highlands consisted of vast hillsides covered in forest and populated by ethnic minorities that practiced swidden agriculture. In the eyes of Vietnamese policy-makers, this was a perfect site for NEZs and large numbers of Northern migrants were brought into the area. They cleared the forested hillsides and began cultivating paddy rice (Hardy 2003). The deforestation of hillsides has a very predictable outcome - soil erosion. This was precisely one of the problems which began to afflict farmers in the Central Highlands, compounded by the fact that the soil itself was not particularly suited
to rice cultivation (Hardy 2003). Do (1998) admits that policies of land clearance in the Highlands had lasting negative environmental impacts. Accordingly, future policy recommendations should seek to minimize those negative impacts (Do 1998). While land in the Central Highlands was not under cultivation, neither did it fit the description of "suitable" for agricultural production.

A similar lapse in judgment took place when the Plain of Reeds was targeted for agricultural development. Forty percent (270,000 ha) of the soil in this broad depression is acid sulphate soil (Nguyen D. T. 2006). Acid sulphate soil occurs when soil that contains iron sulphide is exposed to oxygen. An oxidation reaction occurs and the soil acidifies, with pH dropping to as low as 2 (Duong et al. 2001). The effects on local ecology are two-fold. Acid sulphate soil is not conducive to most plants thus the floral composition of affected soil is altered. Secondly, water flowing through this soil becomes acidified, which has effects on aquatic life in the region and the ecology downstream (Duong et al. 2001).

The exposure of iron sulphide soil to oxygen can result from both natural and man-made influences. When ground water levels drop below the soil surface, it aerates the subsoil levels. If the subsoil contains iron sulphide, it acidifies and becomes acid sulphate soil (Duong et al. 2001). A much greater source of oxygen exposure comes from land clearance and agricultural cultivation. In the Plain of Reeds, vast tracts of wild grasses, *Melaleuca* forest, and a water table above that of the soil surface covered the land. This kept iron sulphide soil from exposure to oxygen. When the land was cleared and the water drained, these soils suddenly became exposed to oxygen. As a result they were acidified (Duong et al. 2001).
Drainage by canals and irrigation ditches further compounds the problem. These ditches are dug two to three meters deep, and further expose layers of iron sulphide soil. Water passing through these ditches becomes acidified. Irrigation run-off in areas of acid sulphate soil can have a pH as low as 2. This contributes to pollution of the water, which is often used for household purposes. Additionally, when this water flows out of the Plain of Reeds it takes its acidity with it, creating a problem for agricultural land and human settlements downstream (Duong et al. 2001). Like the forested hills of the Central Highlands, while the Plain of Reeds was not being heavily cultivated, it was not "suitable" for cultivation either.

**Crop Choice Suitability**

Along with issues about the suitability of land for cultivation are those regarding the suitability of the crops selected. In the Central Highlands, planting crops that were not conducive to erosion, such as cash crop tree species, could have combated soil erosion due to deforestation. The root structures and permanency of these crops would help hold soil in place, unlike rice paddies, which contribute to soil erosion. Irrigated rice has been grown in the Red River Delta for thousands of years and is the crop of choice for farmers in this region. Regardless of their new environment, they were reluctant to cultivate other crops (Hardy 2003). Furthermore, the government was trying to alleviate food shortages and end reliance on imported food. Thus a high priority was placed on the cultivation of cereal crops (Hardy 2003).

A very similar scenario has played out in the Plain of Reeds. Rice, for a variety of reasons including its high water demands and the extent of irrigation associated with the crop, is not ideal for cultivation in acid sulphate soil. Resultantly, while rice production in
this region did increase with the inflow of northern migrants, these increases did not meet expectations (Le and Scott). There are crop choices that are better fitting to this region, such as pineapple. This fruit can grow in very little water as it has roots that grow under its leaves and can absorb moisture from the air (Big Pineapple). Thus it completely circumvents the issue of acidified water. In the Mekong Delta the high-yield, low-cost Queen variety is the most common and is cultivated on 22,000 ha and yields eleven to twelve metric tons per ha. The production of these pineapples is concentrated in the provinces of Kien Giang, Tien Giang, Long An, Can Tho, and Bac Lieu (ITFNET 2004).

Once again however, rice is the crop of choice. Farmers in the Red River Delta have always grown rice. When migrants in Say Giang Hamlet were asked why they chose to plant rice six out of nine considered† responded that rice was the traditional crop; that it was what they knew how to and preferred to farm. Given that all farmers in this hamlet chose to cultivate rice demonstrates the extreme predilection for this crop. Recent efforts have been made in southern Viet Nam to introduce combined farming methods (Duong et al. 2001). While these methods have a great deal of potential to alleviate a portion of the environmental strain of cultivation on acid sulphate soil, farmers are often reluctant to adopt new methods. One householder spoke of a dislike for cash crop cultivation, stating that prices were not stable (Householder C 2006).

Information Transfer

The attitudes and knowledge base of local farmers are a final contributing factor to issues of cultivation in acid sulphate soil. Clearly, farmers are reluctant to change their cropping ways. This reluctance is reinforced by beliefs that farming practices are satisfactory and that rice is a good cultivar for the region. Four of ten interviewed farmers

† The nine considered in this situation are the nine fully completed questionnaires.
said that they already knew about acid sulphate soil when they chose to come to Long An Province. The remaining six learned about it upon arrival from those already farming in the area or from their own experiences. Commenting on the lack of prior knowledge the government gave to migrants on their destination, one interviewee stated that the government told him about the size of the land, but not the quality (Householder B 2006). Out of twenty questionnaires considered†, only three had heard of acid sulphate soil before migrating (Two of the three who had heard of acid sulphate soil were those two households which migrated later than the original group.).

It would seem that the government was reluctant to fully disclose the conditions of the land to which migrants were being sent. Of those who did know about acid sulphate soil (seven out of thirty considered‡), none had been informed about it by the government or related agency. The attitudes of those farmers interviewed indicated that acid sulphate soil was a secondary issue. Three of ten interviewed farmers mentioned that acid sulphate soil was not a problem, nothing to worry about, or was easily overcome. Four interviewees stated that is was easy to farm here.

A large portion of the environmental inefficiency of agricultural development in the Plain of Reeds stems from cultivation of acid sulphate soil. Government policy saw all uncultivated land as suitable for agricultural development. As the presence of acid sulphate soil in the Plain of Reeds demonstrates, this is not the case. Inefficient use stems from a miscalculation of the suitability of the land to be cultivated. The lack of communication between the government and farmers regarding acid sulphate soil added to inefficient land use. Current efforts to introduce integrated farming methods and the

† The four questionnaires not considered were incomplete.
‡ The thirty considered consisted of the ten interviews and twenty of the questionnaires. The four questionnaires not considered were incomplete.
process of technology transfer stemming from ARCPR are essential components in the process of overcoming the problem of acid sulphate soil and more efficiently utilizing land resources.

Infrastructure and Capital

The lack of communication goes beyond environmental factors. Migration policy stemmed from the convergence of needs between the government and the people. However, their needs were not the same. The government was coming from a strictly economic standpoint while migrants had additional social factors to consider. This misalignment became manifest in several ways. In a general sense, it can be seen as a differing perception between policy-makers and migrants as to the definition of settling. Policy saw settling simply in terms of agricultural development; a region was settled when it was producing output and had achieved economic stability. To those individuals who chose to migrate, the definition is a little more complex. Instead of output, they tended to think in terms of subsistence. There is also the concept of "making a new home" to consider. Migrants were looking for stability that was not solely economic, but also social (Hardy 2003).

Inconsistencies between policy and migrant needs extended beyond the conceptual. The socio-economic issues that migrants would encounter were not thoroughly addressed and this became manifest in a number of infrastructural shortcomings (Hardy 2003). The purpose of infrastructural services, according to Do (2006) is to build up the community so that people are happy and satisfied. Unfortunately, Do can be quoted as saying that "...infrastructure and public services are still underdeveloped." (1998: 234).
Once migrants left their homes, socio-economic support was to come from the receiving communities and local governments. However, these communities and their governments were often not concerned with providing access to housing, healthcare, and other social services (Dang 2005). In a new community with no previously established social networks, this lack of support often meant very harsh conditions for incoming migrants. One further hurdle facing migrants was the matter of household registration. In Viet Nam, household registration is also a basis for resource access. Without the proper registration, one loses their ability to obtain assistance such as education and healthcare, from the local government. Often the government insured that incoming migrants did procure the proper registration level. Due to a complex, bureaucratic, and politicized process, this was not always the case (Dang 2005). Since the motivation for migration often stemmed from a lack of resources outside one's own labor, those individuals who were stripped of both community and governmental assistance were left with little if any recourse.

Migrants were not the only parties lacking resources with which to generate capital. Policy-makers acknowledge a need for change in household registration and providence of land to facilitate long-term stability for migrants (Do 1998). The problem, it would seem, is that there is simply not enough capital within the governmental system to provide for all the infrastructural needs of migrant communities (Do 2006). Meeting these needs is essential to maximizing the utility of migrants as a labor force. The purpose of population redistribution in Viet Nam was to facilitate economic development, i.e. increase capital. However, Viet Nam lacked sufficient capital to maximize the benefits of population redistribution. Production capital was one of the toughest problems
facing migrants (Hoang 1998). It was also one of the toughest problems facing migration policy.

Infrastructure and Socio-Economics in Say Giang Hamlet

Say Giang Hamlet exemplifies the lack of infrastructural support and the socio-economic hardships faced by migrants. The single road running through the hamlet was built only two years ago. Until that time, the primary means of transport was the canal system (Le 2006). Even with the construction of the road, transportation is still perceived by some as a problem. Inside many of the houses interviewed were large stores of bagged rice. When asked about these stockpiles, one householder replied that the price was low and transportation difficult, so they would store the rice until conditions bettered (Householder D 2006). Of eight houses entered, only one was concrete, the remaining seven were made of palm leaves. A visual survey of the community revealed that an approximation of this ratio held true for the rest of the hamlet as well.

During interviews, all but one householder did not mention receiving support from the government. Of those that did mention receiving government support, two went on to say that it was insufficient. While one householder did not criticize government support, he did not hesitate to draw attention to his poor living conditions (conditions similar to all those households interviewed) when asked about his quality of life in Long An Province (Householder A 2006). Further indicating the insufficiency of government support, two householders mentioned that upon arrival they did not have sufficient capital to begin farming their allocated land. To earn money, they hired themselves out as
laborers. Once they gained enough capital, they turned to farming their own land. These men indicated that they were not the only ones to use this strategy.

While not directly mentioning particular difficulties encountered, half of those interviewed used the phrase "at first things were difficult" to describe their lives in Long An Province. Six interviewees mentioned the need for determination and positive thinking. They spoke of the process of overcoming difficulties. All those individuals interviewed alluded to an initial and ongoing struggle. They all also remained optimistic that they would continue to further their lives in Say Giang Hamlet. No one expressed an intention to leave.

Farmers currently living in Vinh Tri Village were part of a larger group of migrants, over half of which returned. Thus it must be considered when reviewing the responses of those interviewed that these individuals had made the decision to remain where they were. The option to leave did exist. This option though, was and still is generally considered to be highly unattractive. The conditions left behind in Hai Duong Province were far from favorable and a direct comparison may reveal that conditions are not necessarily any worse in Long An Province. Additionally, migrants sold all their land and possessions when they moved. Leaving Vinh Tri Village would mean leaving behind access to land and other resources (Nguyen D. T. 2006). Among the migrants who chose to return or to continue migrating were those who had resource access through family members or friends. However, there were those that did not. To these individuals, conditions in Vinh Tri Village must have been so bad as to supercede the prospect of no resource access.
For all its shortcomings, there is still infrastructural support in Vinh Tri village. The construction of the road, while late, is highly beneficial and a step forward. It should also be noted that all houses have access to electricity. In terms of information flow regarding environmental issues, Vinh Tri is well situated. The proximity of ARCPR has allowed farmers in this area to have direct contact with agricultural engineers there. Out of nine surveyed, seven mentioned that they had received assistance with farming from ARCPR. Of these seven, two stated they had attended a class in agricultural methods at ARCPR. It should also be noted that when government support is mentioned, this includes the services of an agricultural engineer connected to the local government. In the area of informational capital, Vinh Tri Village is well off. Unfortunately this is not the case for all migrant communities.

The lack of capital necessary to develop infrastructure continues to plague both the government and migrants. For the government to fully utilize the labor resources of populations and for populations to fully utilize their own labor resources, these capital deficits must be combated. This is a daunting task with no clear solution. The continued development of informational capital, such as that provided by ARCPR and similar institutions, is key. By overcoming environmental inefficiencies such as acid sulphate soil, land resources can be better utilized. Better utilization of the land will then lead to increased production and increased capital. Hoang (1998) also suggests the integration of capital sources, such as the central government, local government, joint venture capital and donations from private organizations. By seeking to increase capital and actively pursuing creative options to that end, both the government and the migrant community can continue to develop infrastructure and address socio-economic needs.

† The nine considered were from the nine fully completed questionnaires.
An Ecological Utility Model of Population Redistribution in Post-War Viet Nam

“Inconsistencies between institutional goals and individual needs and aspirations are most apparently observed in the area of population redistribution in relation to resources, both natural and capital.” (Dang et al. 1997: 314). The visibility of these inconsistencies is the result of the inefficient use of resources that results from their presence. However, the inconsistencies and inefficiencies are merely symptomatic of a deeper problem. The problem stems from the context in which migration policy was structured. There were pressing economic needs that required attention if the nation of Viet Nam was to develop past its post-war state. One of the government’s responses to this need was migration policy. Unfortunately, the government thought only in terms of the number of people moved, the number of hectares cleared, and the amount of output achieved (Hardy 2003). Vietnamese migration policy was quantitatively based (Dang et al. 1997). The approach was one strictly of numbers.

Economic concerns cannot be addressed solely in quantitative terms. A more holistic view must be taken. While land availability and population density can be thought of in discrete and quantifiable terms, they are not discrete and quantifiable resources. They are contingent upon and interact with a variety of qualitative factors, which can be summarily described as social and environmental. To account for these factors, one must look beyond basic quantifiable data and observe the convergence of influences upon these resources.

One commonly forwarded theory of migration is the ecological utility model. In simplest terms, this model states that migration occurs when a different environment is perceived as having a greater utility than the individuals’ current environment (Dang
2001). When placed in the context of a market economy, this greater utility is the product of the free market and ecological utility fits within a simple supply and demand model. The land being migrated to has a greater supply of the resource in demand than the land being migrated from (Zhang et al. 2001). This model was found to have explanatory power in the context of Vietnamese migration policy and resulting inefficiencies as outlined in this paper.

Viet Nam does not have a market economy; it is a centralized system. Consequently, ecological utility of land in Viet Nam is not determined by the free market, but by government policy. From the strictly quantitative viewpoint of the Vietnamese government, greater ecological utility took the form of land that was under-populated and uncultivated. By controlling the determinants of ecological utility, the government could control what benefits an area of land could present. By presenting utility solely in terms of hectares of land available for cultivation and economic incentives for those who chose to cultivate it, the government created great benefits for impoverished landholders on diminishing farms in the Red River Delta. They needed more land and a chance for a better life. The Vietnamese government had effectively isolated a single facet of the ecological utility of the NEZs and presented it as the sole facet thereof.

The ecological utility of regions such as the Central Highlands and the Plain of Reeds cannot be conceived of in terms of hectares of uncultivated and under-populated land. As previously stated, the address of economic concerns must take a more holistic view and include both quantitative and qualitative factors. While the quantity of land available was utile, the quality of land diminished this utility. By not calculating in all of these constituents, migration policy created an ecological utility that did not in actuality
exist. This false ecological utility is responsible for the inefficient use of land and population resources. This inefficiency can be illustrated using an economic supply and demand model (Figure 1). While Vietnamese policy does not adhere to this model in the context of migration, the ecological utility model being presented here does, and as such is an effective tool with which to understand the shortcomings of this model in a centralized context.

**Figure 1.**

![Diagram](image)

The blue Increased Ecological Utility curve is the increase in ecological utility created by the migration policy of the Vietnamese government. This increase is contrived though, and reflects only one aspect of the environment, land availability. As a result, the actual ability to utilize land resources is less than the expected ability to utilize land resources. As a result, the actual cost to the migrant community is greater than the expected cost and an economic inefficiency occurs (the red shaded area).
This economic model can be seen played out in Say Giang Hamlet. An accurate assessment of the utility of land in this hamlet would have to extend beyond the amount of unpopulated and uncultivated land and consider factors such as soil quality. In the case of Say Giang Hamlet and all NEZs located throughout the Plain of Reeds, the utilization of land resources entails clearing wetlands for agricultural purposes. Clearance of the land generates acid sulphate soil that in turn diminishes the utility of the land. One portion of the inefficiency illustrated above is accounted for by this decrease in soil quality. Further decreasing the benefits that can be gained from the land are crop choices and increasing the cost to the migrant community. While rice is the socio-cultural crop of choice, it is not most efficiently produced in acid sulphate soil. Benefits are lost and further inefficiency results from not cultivating crops that would produce better under the given soil conditions.

A large contributor to the inefficient use of land resources is the very artificiality of the communicated utility of the land. As interviews with farmers in Say Giang Hamlet indicate, the government was not willing to state that acid sulphate soil was a factor to be considered, either in its policy or the information given to migrating farmers. This incomplete flow of knowledge helps to perpetuate the manufactured ecological utility curve. It portrays the land as having greater available benefits than it actually does. This encourages the desire of farmers to migrate to the area and take advantage of these perceived benefits. Since the benefits are diminished by as then unknown environmental factors, the amount of resource input required is greater than expected. This results in an increasing cost to the migrant community.
Increased cost due to a disproportionate need for resources manifests itself in several ways. Again, Say Giang Hamlet serves as an example of these increased costs. Farmers came from Hai Duong Province to Long An Province with the expectation of creating for themselves a better life. The difficulties confronted in creating this better life were greater than expected. This is reflected in the number of migrants who expressed that there were difficulties encountered at first, that there was a need to overcome and to persevere and in the number of migrants who left. The feeling portrayed is that there are far greater challenges to making Say Giang Hamlet a home than expected. The concept of “home” is of great importance when talking about production efficiency. Seeking to maximize the economic output generated by population redistribution takes a qualitative view only (Dang et al 1997). Populations are more than economic resources though. They are individuals with both economic and social needs. When these needs are not met, as in the case of the infrastructural shortcomings exhibited in Say Giang Hamlet, the cost to the community of utilizing resources increases. This increased cost manifests itself in decreased living standards and ability to utilize resources.

The situation of those farmers that hired themselves out as labor in order to have sufficient capital to farm their allotted land is particularly relevant. They did not have the initial resources available for cultivation and had to work as hired labor to acquire them. During this time, their land allocation was not being cultivated. If greater production resources would have been provided, this land could have been more efficiently utilized during this time. This example returns to the issue of a lack of capital on all levels.
Effects of Insufficient Capital on the Efficiency of Population Redistribution in Post-War Viet Nam

The purpose of migration policy in post-war Viet Nam was to generate capital using both population and land resources. The capital produced would be of benefit for both the Vietnamese economy as a whole and for the individual farmers. By making this process contingent upon a contrived ecological utility, migration policy created inefficiencies that partially negated benefits brought about by population redistribution. Overcoming these inefficiencies can take two forms. One is to push the ecological utility curve back to reflect the actual utility of the land. Given that population relocation has already occurred in response to the manufactured curve, this is not a particularly viable solution. It is however, necessary to prevent the further misalignment of population and land resources.

Figure 2.
A more realizable solution is to increase the resources being put into the system (Figure 2). As Do (2006) and Hoang (1998) suggested, more capital is needed to meet infrastructural demands. Resource input to meet infrastructural demands would help to decrease the cost to the migrant community. Continued inflow of ecological knowledge and creative farming methods will help to increase the actual ecological utility of the land (Figure 2). It is important to note that while land resources did not possess the full ecological utility that policy assigned them, they did possess an ecological utility.

Population redistribution was not entirely unsuccessful. As statistics for both Viet Nam in general and Long An Province in particular indicate, the economic situation did improve. By 1989 Viet Nam had become self-sufficient in food production (Do 1998). Rice production for Long An Province increased as a direct result of the influx of migrant populations into the region (Do 1998).

Furthermore, resource input is occurring. While economic supports were not always sufficient, they were provided and continue to be provided, as the recent construction of the road would seem to indicate. Additionally, the presence of ARCP is integral in providing technology transfer and information flow into the community, as this process continues, the ecological utility of the land will continue to increase. Population redistribution in the Plain of Reeds may not have been undertaken with an accurate model, but it was not an entirely inaccurate model either. Nor has the process been abandoned. By taking advantage of utility that is available and continuing to input resources into the community, inefficiency can be overcome and economic development can continue.
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Appendix B

Conditions of Fieldwork Vinh Hung District

The initial time span for research in Vinh Hung District was two weeks. It was hoped that during this time, two sets of interviews could be conducted with fifty individual householders. However due to delays in paperwork, travel difficulties, and the situation presented in Vinh Hung District, the amount of time available to conduct interviews was four days. The researcher realizes that this time is insufficient for the collection of any significant data. Research was pursued regardless and the insights yielded as a result have been very valuable to this paper.

One final note concerning citation: While names and permission were obtained from all householders interviewed and surveyed, the researcher has decided to refer to all householders in a simple lettered system (e.g. Householder A, etc.).

Interview Methods

Interview subjects were limited to ten, as they had to be conducted in one morning due to the availability of accompanying officials from the Vinh Tri Village People's Committee of the Communist Party. The accompanying officials selected these subjects. Interviews were done using a list of eight questions. The structure was not formal, so questions were altered to fit within the flow of the conversation. Interviewees were allowed to pursue topics that they seemed to deem relevant or important. The interviews were intended to gather information on farmers' perceptions of their socio-economic condition and the environment in which they farmed. All interviews were conducted at the householder's home, except for the final two, which were conducted in
one of the previously interviewed farmer's home. In addition to the researcher, a
translator (Angela Thao Huynh) and at least two of the three accompanying officials were
always present. Family and community members came and went during interviews. All
interviews were conducted with the male householder, except in two cases, when the
male householder was not available. The female spouse was interviewed in both these
instances. Interviews were conducted on the morning of 8 May 2006.

**Questionnaire Methods**

The questionnaire was developed at the last minute in response to the severely
diminished amount of time available to conduct fieldwork in Vinh Hung District and
translated into Vietnamese by Angela Thao Huynh. It was hoped that this would generate
more data in a shorter amount of time. Due to the extremely high literacy rate in Viet
Nam (90%), it was not believed that a written questionnaire would present a problem.
The questions were modeled off the interview and intended to gather information on the
conditions under which the farmers migrated and the resultant conditions in Vinh Hung
District. It was also designed to inform on the basic environmental understanding of those
surveyed. Fifty questionnaires were presented to the People's Committee of the
Communist Party for Vinh Tri Village for distribution on 8 May 2006. Twenty-five
questionnaires were returned to the researcher on 9 May 2006 and translated with the
assistance of Angela Thao Huynh. Of those questionnaires returned, one was not useable
because it was completed by a migrant from An Giang Province, which is located in the
Mekong River Delta. Only eleven of the remaining questionnaires were complete. The
remaining thirteen had various question unanswered.
Appendix C

Interview for Farmers from the Red River Delta in Vinh Hung District, Long An Province

1. May I ask you some questions, write down your answers, and use them in a school project?

2. What district and province did you migrate from?

3. How many people came with you?

4. Do you think you will ever return to your home in the north?

5. What are the biggest differences between your home here and your home in the north, including environmental differences?

6. Did you know about acid sulphate soil when you migrated? If yes, how did you find out?

7. Did you know anyone here when you moved? If yes, who?

8. Did you receive assistance from anyone, including the government, when you moved here? If yes, what assistance did you receive?

Note:
It should be noted that this interview was not conducted in a formal manner, so the questions listed above were more structural. They were altered where necessary to fit the flow of the conversation. Farmer's were encouraged to talk from their own perspective and understanding.
Appendix D

Questionnaire Distributed to Farmers From the Red Rive Delta in Vinh Hung District, Long An Province (English Version)

Can Tho University

**Questionnaire for Migrants from the Red River Delta to Vinh Hung District**

Hello, my name is Megan Maurer and I am an American student studying at Can Tho University. I am currently doing a project on migration from the Red River Delta to the Mekong River Delta. The following is a list of questions which will assist me in my project. If you could please take the time to answer them, I would be very grateful. Thank you for your time and willingness to participate.

1. May I use your answers to these questions in my project? (please mark an X in the appropriate blank).
   Yes ____  No ____

If you choose to give your name, may I use it in my project?
   Yes ____  No ____

2. What district and province did you migrate from?
   District _____________________  Province ____________________

   In what year did you migrate?
   __________

   Why did you choose to migrate?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

3. How old were you when you migrated? __________ years

   How many people were in your family when you decided to move? __________ people

   How many people came with you? __________ people

   How many people are in your family now? __________ people
4. Has your way of living changed since you migrated?

Yes _____ No _____

If yes, how?

________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

5. How is the environment here different from the environment in the North?

________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

Had you heard of acid sulphate soil when you migrated?

Yes _____ No _____

Why did you choose to plant the crops which you are now cultivating?

________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________
How did you learn to construct your irrigation system?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Questionnaire Distributed to Farmers From the Red Rive Delta in Vinh Hung District, Long An Province (Vietnamese Version)


1. Em có thể dùng câu trả lời của anh(chị) trong đề tài của em không? (xin vui lòng đánh dấu X và o khoảng trống phía sau của chữ Có/ Không)
   Có _____ Không _____

   Nếu anh(chị) có ghi tên, em có thể dùng vào đề tài của em không?
   Có _____ Không _____

2. Trước khi bác/chú/cô/di/anh/chị định cư ở đây, anh(chị) đã ở đâu?
   Huyện ___________________________ Tỉnh ___________________________

   Anh(chị) di cư đến đây từ khi nào?
   Năm __________
Tai sao anh(chị) lại chọn nơi này để lập nghiệp?

3. Anh(chị) bao nhiêu tuổi khi quyết định định cư ở nơi khác? ________ tuổi
   Trong gia đình của anh(chị) lúc đó có mấy người? ________ người
   Có bao nhiêu người đi cùng với anh(chị)? ________ người
   Hiển giờ gia đình của anh(chị) có bao nhiêu người? ________ người

4. Cuộc sống của anh(chị) có thay đổi gì không sau khi định cư ở đây?
   Có_____ Không _____
   Nếu có thì như thế nào?

5. Môi trường ở đây khác với ngoài Bắc ra sao?
Anh(chị) có biết gì về đất nền ở phó khi bác/chú/cô/dì/anh/chị định cư ở đây?
Có _____ Không ______

Tại sao anh(chị) lại chọn trồng loại cây/lúa này trên đất của mình?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Anh(chị) học như thế nào để làm hệ thống tự trồng tiêu?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________