

# **Spill-over Effects of Rural Industrialization on Community Transformation**

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Rural industrialization has resulted in the transformation of the general landscape of the countryside. The development path taken by the peri-urban or urbanizing barangay (or community) studied was influenced by internal and external factors. Overall, the most influential factor was the establishment of industrial estates in nearby barangays. The impacts of rural industrialization spilled-over to the peri-urban barangay and affected its natural and financial assets. This was evidenced by the conversion of agricultural lands to settlement and commercial sites and the emergence of other livelihood options to cater to the needs of the growing number of industrial estate workers who settled in the peri-urban barangay.

The beneficial spill-over effects of rural industrialization include improved access to and delivery of educational, health and other social services, improved physical infrastructure, strengthened aspirations for better education, better housing and housing facilities, generation of more employment opportunities, increased female labor participation rate, regularity and increased income, and more diverse business prospects. In spite, however, of the beneficial effects, industrialization has likewise led to a number of negative outcomes like rapid increase in population which eventually gave way to the conversion of lands to settlement sites for housing and to commercial use to cater to the service needs of migrants as well as temporary settlers.

The effects of rural industrialization indeed spilled-over to adjoining communities which were not prepared or designed to provide public service beyond the needs of its local residents. This occurrence has significant governance implication and hence should be integrated in government development plans. Authorities concerned should address these needs through appropriate planning and policy interventions and additional resources to enable the peri-urban communities to cope with the exigencies associated with increased population and diversity in

social and economic activities. More in-depth study of its theoretical and practical bases is needed to determine its applicability and typology for more realistic planning and policy making.

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**KEYWORDS:** rural industrialization, communities in transition, peri-urbanization, social capital, natural assets, financial assets

## INTRODUCTION

In analyzing and empirically investigating effects of rural industrialization, a wide range of factors may be identified. Studies have shown that the rise of urbanization not only shapes socio-political landscape of communities, but equally so, rural-to-urban transition has a great impact on the personal well being and social functioning of individuals (Ishizeki, 1997; Ladlad, 1993; Morgan, 1979). Thus, a complete analysis of these effects can only be achieved by exploring changes on personal factors, networks, relationships, influences, and other social processes taking place both in the industrialized rural communities and the neighboring districts with which these communities have made an impact on.

The dearth of literature explaining the processes and products of rural industrialization is well recognized in this study. Hence, the study hopes to fill-in some gaps in communities in transition research by providing a perspective of how transformation of rural communities has affected the circumstances and lives of people and communities and other social processes that can have an impact on them. The information that will emerge is expected to contribute to a better understanding of the dynamics of community transformation.

One study spells out the positive attributes of rural industrialization (Parnwell, 1990 in Ishizeki, 1997). These contributions cut across social, economic, and political conditions and support an earlier concept of integrated development framework that development is not merely equated with economic development but implies increased capability to achieve economic, political, social, and technical goals (Cuyno et al, 1982). The Parnwell study reveals some of the positive attributes of rural industrialization as follows:

1. employment and income generation
2. diversification of the rural economy
3. mobilization and fuller utilization of local resources
4. utilizing comparative advantage
5. building upon an existing framework of traditional rural industries
6. flexibility
7. increased female labor participation rate
8. an alternative to land reform
9. reduction of out-migration
10. slowing the pace of urban concentration and associated problems
11. more balanced pattern of industrial activity
12. better balance in the urban-rural division of labor
13. strengthening of the linkages between towns and rural hinterlands

Using the individual as unit of analysis, another study reports that rural areas which experienced rapid industrialization showed increase in most social capital measures such as measures of voluntary associational activity, levels of trust and cooperation, and family outcomes (Miguel, et al., 2002). Furthermore, local industrialization has been found to be associated with a sharp increase in the number of recreational activities, higher spending on ceremonies and festivals, and a decrease in farmers' groups. The same study revealed that districts within the peripheries of rapidly industrializing areas exhibited high rates of out-migration, significantly fewer community credit cooperatives, a reduction in mutual cooperation, and less spending on ceremonies and festivals. In particular, the movement of young professionals from rural areas to nearby factory jobs has reduced social capital in the communities they left.

In the Philippines, the period 1980s to early 1990s was a period of rapid industrialization. This period is characterized by sharp increase in manufacturing employment, migration to urbanizing communities, increase in access to schooling and other social services, and changes in income generating activities among local people brought about by land conversion and expropriation mostly for industrial and residential purposes (Ishizeki, 1997). A related research based on Laguna Lake Basin case concluded that land conversion was a threat to the country's food security, loss of dwelling, and widespread landlessness among land tillers (Ladlad, 1993; Ishizeki, 1997). Both

studies revealed, however, that despite the negative effects of land conversion and expropriation for industrial estate development, it has created tens of thousands of jobs which in the process have improved the lives of some local farmers and their communities.

Indeed, rural industrialization has led to the emergence of “new” communities bringing changes in patterns and structures to individual and community systems. In fact, given the wide-ranging circumstances and rapid changes in the communities, it is but natural to think of communities as being in the continued process of transformation. Because of this dynamism, community development theorists rely heavily on eclectic, general systems conceptual framework rather than simplistic models to organize and relate ideas about communities in transition (Cook, 1994).

It is in the foregoing view that this study was undertaken to find out how areas which are not included in area development plan benefit or suffer from the spill-over effects of rural industrialization. In particular, this paper focuses on one facet of communities in transition – the effect of rural industrialization on social, economic, and cultural activities and practices of neighboring communities in which transformation has taken place.

## METHODOLOGY

This exploratory case study was conceptualized based on the observations that (1) rural industrialization affected not only the areas where the industries are located but also the surrounding communities which absorbed the migrant labor and provided other services that cannot be accommodated by the industrialized areas, and (2) the communities in transition or the rural communities adjoining urban centers are not well studied and described in the literature.

This case study is focused on a Southern Tagalog community in the Philippines which experienced transformation from one that was characterized as rural about 15 years back to one that is now described as peri-urban or urbanizing. In this context, traditional rural communities are generally characterized as conservative, have closer ties, and with high dependence on agriculture as source of income while a peri-urban area is described as “a partly urbanized rural area or a grey area which is neither entirely urban nor purely rural in the traditional sense” (OECD, 1979). Data were collected through key informant interviews, focus groups discussions, and household survey covering a total of 45 respondents. Pertinent documents such

as reports and other related literature were reviewed and content analyzed to supplement the primary data gathered. Descriptive analytical tools and techniques were used to analyze and describe the results of the study.

## RESULTS AND DISCUSSION

The ensuing discussions tackle how industrialization in neighboring communities has affected the social, economic, and cultural activities and practices of households and communities in the peri-urban barangay, an upland community with a total land area of 471.29 hectares. Of this total land area, about 58 percent is residential area, 5 percent is allotted for agriculture, and the remaining 37 percent is devoted to commercial or industrial area. As of 2007 census data, the peri-urban barangay has a total population of 8,639 and 2,041 households. This implies an average of about four members per household. Of the total population, 51 percent are females and 49 percent are males with the modal age group for both gender groups being 18 to 35 years old.

The peri-urban barangay is 12 kilometers away from the town proper of General Trias, Cavite. It was formerly a *sitio* of Barangay Buenavista but it was elevated as a barangay through Sangguniang Bayan Resolution No. 8-60 dated 3 December 1960. Years ago, the peri-urban barangay used to have large tracts of land planted to rice, corn, and banana. Over the years, these tracts of land were sold by landowners to some private individuals and groups who in turn developed these into subdivisions and where schools were eventually built. To date, there are four subdivisions that can be found in the peri-urban barangay which were established sometime between 1981 and 2000. A new subdivision, Ara Vista, which started to be developed in 2009 is expected to start its operation soon. Also found in the barangay are two public schools for elementary and high school and two private schools for high school and college.

The succeeding sections are organized in terms of the spill-over effects of industrialization in social services, economic activities, and cultural practices of households and communities in the peri-urban barangay. In particular, the effects were focused on (a) public social service facilities on education, health, senior citizens, peace and security, and other community social services; (b) public service infrastructures such as roads, bridges, communication, and

transportation; (c) housing and housing facilities; (d) employment opportunities; (e) income and livelihood sources; and (f) social capital.

### **Public Social Services**

There has been a general improvement in various community facilities, services, and infrastructures over the years as perceived by residents of the peri-urban barangay. These improvements are enjoyed by both the local community residents and the migrant workers who have come to stay in the community as regular residents.

*Educational Facilities.* Day care center is a visible service facility in the peri-urban barangay. The center is built with the main purpose of providing early education to children ages 4 to 6. While early childhood education remains optional within the Philippine education system, parents would still avail of early grade education for their children with the belief that this will better prepare their children when they enter the compulsory primary education. Working parents would also look at pre-schools as a secure place to leave their children behind while they go to work. There was a general agreement among respondents that with industrialization, the public day care center has been improved and renovated to become a permanent, concrete structure in the barangay. There is no private day care center reported.

Grade school children ages 6 to 12 attend a public elementary school that has been established in the community years earlier. Respondents even mentioned that new classrooms in this particular elementary school have been constructed over the years as part of school improvement. They attribute the improvement and expansion not only to the increase in student population because of in-migration but also to the overall economic progress of the barangay. Some respondents commented that in-migration as a result of rural industrialization contributed to congestion in classrooms which consequently led to inadequacy in school facilities and resources like chairs and books. They added that there is also shortage of teachers. However, despite the government's efforts to build new classrooms and improve school facilities, parents still clamor for more classrooms to accommodate the increasing number of students. This finding is consistent with results of an earlier study which indicate that any change in industrial activity can ultimately influence the size of the population and the subsequent level of public services demand which

includes education (Morgan, 1979). Similarly, the public secondary school has made some improvements and expansion as a result of increase in student population.

Some respondents also acknowledge the presence of a private elementary school and a private high school which were recently built by the owners of one of the local subdivisions. A private collegiate-level school had also been constructed five years earlier mainly because of the growing demand for higher education among the local people. It is also worth mentioning that the Technical Education and Skills Development Authority, through the initiative of the local government, has a number of vocational courses and skills training implemented in the barangay.

Aspirations for better education, higher education for that matter, for the younger family members remained or even strengthened with rural industrialization. Respondents opined that parents are more eager now to send their children to school to give them better future. It might also be that with no more farm land to till, education is considered as the family's vehicle for a better life for their children and for the whole family as well. A related study revealed that attendance to formal education was one of the survival strategies of farming households whose lands were expropriated and converted into industrial parks or subdivisions (Ishizeki, 1997). Higher education attainment is seen as a good qualification for their children to be employed in the non-agricultural sector, which generally offers better wage scale.

Present educational attainment profile of the community shows that only 9 percent of its population reached college or university level, 19.8 percent of high school, majority or 43.6 percent only reached or are graduate of elementary level, 10 percent of pre-school, 0.04 percent of technical or vocational course, and the remaining 17.2 percent accounts for out of school youth. Interviews with some school officials and focus group discussion results indicated a general improvement in school participation rate in all levels of education. They believe that people now are more conscious of providing better education for their children as compared to 15 years earlier.

*Health Facilities.* Health facilities in the community include hospitals, clinics, and health centers that cater to the health and nutrition concerns of local people. Despite industrialization in nearby districts, there are no hospitals yet in the peri-urban barangay. Residents reported that the nearest hospital can be found in the next municipality or city.

Public health clinic is likewise not present in the study barangay. However, a few respondents mentioned the presence of one newly built dental clinic within the barangay while another private health clinic had recently been constructed. They added that health clinics in the nearby municipality or city can easily be accessed since public transportation is readily available.

In the absence of either a hospital or a clinic is a health center which appears to be an important community facility given its common presence in many barangays. The increase in population prompted the local government to improve the physical structure and service provision of the Barangay Health Center. In particular, common medicines for fever, cough, and colds and some first aid kits are now available at the center. In addition, the health center is staffed by either a nurse or a midwife. A government physician also visits the center on a regular basis.

*Peace and Security Measures.* Some FGD respondents reported that there was an increase in cases of theft, robbery, and snatching in some areas in the community which they attribute to the increase in the number of strangers or migrants over the years. Overall, they believe that peace and security measures are important given the increasing incidents of crimes against property. To respond to this problem, the community has installed a number of peace and security measures. The most common peace and security measure adopted in the peri-urban barangay is foot patrol by barangay tanod. This is followed by street lighting which is perceived by most residents as a measure that can curb or suppress the occurrence of crime in the community. Local residents also consider traffic management as another important security measure which the barangay can provide. Respondents indicated that barangay officials and barangay tanod should be responsible in looking after the peace and order situation in the community at all times.

*Other Community Social Services.* The Barangay Hall, which houses the office of the barangay officials and provides venue for most of the barangay activities, has significantly improved, made bigger, and renovated to become a more permanent structure in the barangay. Respondents related that the local government provided the funds for the improvement of the Barangay Hall to make it more serviceable both to local officials and residents. They also explained that the physical improvement of the barangay hall may largely be attributed



to the natural development of the community.

Residents reported that there is no public market in their community. Local people therefore purchase their daily food consumption in markets that are found in neighboring towns or barangays. Public multipurpose hall, playground, and plaza or park are also absent but a few interviewees mentioned the existence of a meeting hall that is being used most of the time by members of a local cooperative. They, likewise, reported the presence of playground but this can be found inside the school premises. Two covered courts and two open basketball courts also serve as playground for some residents. One resident explained that Intel or one of the companies in Gateway Industrial Park gave fund for the construction of one basketball court.

While Roman Catholics (89.4%) dominate in the peri-urban barangay, additional churches or chapels are established by other religious groups who settled in the barangay. Other popular religious groups in the community are Born Again Christians (3.8%), Iglesia ni Cristo (2.6%), and Protestants (1.04%). In the meantime, one respondent said that the establishment of a chapel in their barangay is made possible through the effort and assistance of the municipal local government. It was reported that some transients also attend the local church and participate in the worship but not as often as the original residents.

## **Public Service Infrastructure**

*Type of Roads and Bridges.* Rural industrialization has brought a significant improvement in the peri-urban barangay in terms of the construction materials used for roads and bridges. In particular, all respondents generally agree that roads and bridges are now made of concrete materials pointing out that the improvement is made possible through the efforts of the barangay officials with the assistance from the local and national governments. They also attribute the development to the establishment of subdivisions, golf course, industrial parks, and other business enterprises in the nearby communities. While road system and road network remain a major problem in other barangays, a different picture may be drawn about the impacts of rural industrialization among residents of the peri-urban barangay where roads are wide, concrete, and well-lighted by lamp posts. Consequently, the significant improvement in roads and bridges in the peri-urban barangay has provided better access to

health and education facilities among the residents.

*Communication Services.* With industrialization comes along the boom of mobile cellular telephone as evidenced by its possession by almost everybody (95%) in the community. Use of the internet has likewise started to dominate among the peri-urban barangay residents, i.e., from a mere 5 percent to 30 percent users in a span of 5 years. Moreover, there was an observed 15 percent increase in the number of landline telephone subscribers and an equal 15 percent decrease in two-way radio users. Overall, respondents attribute the change in communication services to local modernization as well as to the general improvement in information and communication technologies.

*Transportation Services.* With industrialization, local people have become more mobile and would combine tricycle with public utility jeepneys as their main modes of transportation and the means of local traders to ferry their goods to the market and other outlets within and the nearby towns and barangays. With the improvement in roads and bridges leading to enhancement in people's mobility, frequency of trips of local transport has consequently increased. Specifically, local transportations have become mostly available 24 hours in a day. Very few from the peri-urban barangay (10%) mentioned that local means of transportation are limited to at most 10 trips in a day only. Reasons indicated for the increase in the frequency of trips of local transport from barangay to town proper include increase in number of public utility vehicles in the area and improvement in road conditions.

The general progress in the peri-urban barangay in a span of 15 years due to general improvement in road conditions and increased availability of local transportation has led to greater efficiency and mobility among the local people. Based on the survey, travel time from farm to market and from house to the town center has generally been made faster due to rural industrialization. For instance, farmers and local traders or businessmen can reach the market place faster than before. In the same manner, local residents can be at the town center in a shorter period of time than 15 years earlier.

### **Housing and Housing Facilities**

Rural industrialization has brought further improvement in the general housing structure and living conditions of most households

in the peri-urban barangay. Specifically, about 90 percent of houses can now be described as having permanent structure. For the construction materials used, most respondents described their housing structure as having galvanized iron sheets as the dominant roofing material (95%), concrete with some combination of wood as the dominant walling material (100%), and cemented with tiles as the dominant flooring material (55%). Furthermore, some respondents indicated that they also made use of colored roof materials that are much more expensive than the usual galvanized iron sheets.

Despite these positive results of industrialization, the onslaught of industrialization in nearby communities has been accompanied by negative effects such as the increase in the number of squatters in the neighboring districts like the peri-urban barangay. Just like the migrant workers, these people have moved in to the community in search for better economic opportunities for themselves and their families. Focus group discussion participants revealed that squatters which increased in number over the years have found settlement along the riverside. They estimated that about 130 families are presently living in this area for more than 5 years now. Their shelters are mostly shanty-type made of light materials that are almost bare of basic amenities. As cited by Morgan (1979), the phenomenon of out-migration from rural areas can be a symptom of a sick rural economy and an increasing social cost to urban areas receiving the migrants. This is supported by a latter study which reports that districts within the peripheries of rapidly industrializing areas exhibited high rates of out-migration (Miguel, et al, 2002) since residents are also in search of better opportunities to more economically-developed areas.

As to housing amenities, water, toilet facilities, and fuel used for domestic cooking were also investigated. Survey showed that rural industrialization has further increased the number of users of electricity in the peri-urban barangay as the main power source (from 85% to 100%). The main reason given for this change was that with the developments in nearby districts, people now have better access to electricity than before. Likewise with industrialization, piped water system provided by the water district has dominated most households (95%). The number of residents that uses water sealed toilets with flush has more than doubled after industrialization, i.e. from 15 percent to 35 percent. In particular, all residents now use water sealed toilets (35% with flush and 65% without flush). One reason given for this positive shift is the change in income source of some family members who helped in their home improvement.

Likewise with the transformation taking place in the community, the peri-urban barangay residents have remained major users of LPG as fuel for cooking largely because of its convenience to use.

Industrialization has also affected home ownership in the peri-urban barangay. Barangay data revealed that while most of the families (60.7%) own their house and lot, a noticeable increase over the years in the number of renters (20.5%) has been observed. It was likewise shown that these renters are mostly migrant workers who have sought temporary residence in the peri-urban barangay for employment or personal business. About 6 percent of community residents are considered as squatters who have mostly found settlement along the riverside as discussed earlier.

### **Employment Opportunities**

More than half of peri-urban residents are engaged in buy and sell, vending, and board and lodging business. The proximity of the peri-urban barangay to industrial parks has provided a good opportunity for some respondents to engage in boarding house business. Another popular source of livelihood is sari-sari stores which 95 percent of survey respondents are operating. More so, about 35 percent reported that some of their family members are working in the industrial park and golf course in the nearby communities.

This finding supports that of a previous study which indicates that after land expropriation, employment opportunities in off-farm ventures had increased (Ishizeki, 1997). Land conversion has also changed the role of farm tillers from producers to mere consumers. This also led to the modification in family and gender relation patterns. Specifically, domestic chores for the daughters, particularly young single females with high school education, who became employed as factory workers have been reduced leaving the younger members in the family or those left at home to do the regular home chores. This is consistent with a study by Morgan (1979) which revealed that rural labor force is following the urban trend toward increased female labor force participation rates as a result of rural industrialization.

### **Income and Livelihood Sources**

Although the peri-urban barangay is classified as a rural urban barangay, only 5 percent of its land area is being used in agriculture or farming while a larger portion (37%) is allotted for commercial use.

The remaining much bigger area (58%) is used for residential purposes. It must be recalled that about 15 years ago, the entire barangay is engaged mostly in agricultural activities in which large tracts of land are planted with rice, corn, and banana. Rural industrialization has brought a major shift in main income source of the local government unit from largely agricultural to a variety of sources that are mostly non-agricultural in nature. In particular, income sources are derived mainly from business taxes and real property taxes.

The latest recorded annual income of the peri-urban barangay is P4,170,047.42 in 2009 which comes from internal and external sources. The internal source comes from the businesses in the barangay (18.9%) while the external source is derived from the internal revenue allotment or IRA (81.1%), mostly coming from real property tax from subdivisions. In fact, it was revealed in the focus group discussion that some of the positive economic effects of community transition toward industrialization are the increase in IRA, better employment for the people, and more business opportunities. More so, while the largest percentage of livelihood sources comes from employment or wage labor (60%) provided mainly by the commercial and industrial establishments, industrialization also provided some residents opportunities to engage in rooms-for-rent and board and lodging business enterprises. Consistent with the earlier discussions, employment opportunities and increase in the number of business establishments are the economic benefits enjoyed by the respondents due to industrialization.

Barangay data also indicated that while majority (61%) of residents have employment (either self-employed or working locally or overseas), a significant number (39%) remains unemployed. This is quite unexpected since about 35 percent of the population has an age range of 18 to 35 years old which can be classified as belonging to the working group. It was reported that a portion of those unemployed individuals have spouses who are employed while some get support from their children who are working. The monthly modal range of income in the peri-urban barangay is between P10,000 and P20,000 (about 584 families) while 77 families earn about P50,000 per month. On the other hand, the increase in unemployment rate at the time of the survey comes as no surprise with the closure of Intel which employs a significant number of residents in the peri-urban barangay. Discussion of its impact is provided in the succeeding section.

In general, a family's income goes to five major expenditure items. These are food, education, clothing, medicine or medical needs, and

household utilities. With industrialization, the prioritization in income allocation across the various expenditure items has remained the same as before with food expenses getting the biggest share (31-40%) followed by education (21-30%), clothing (6-10%), and household utilities and medical expenses getting an equal share (1-10%). Noteworthy is the 100 percent increase in the budget allotted to medical needs of the family. Households now are more conscious about the health and nutrition status of their family members. This might be due also to the health awareness campaign of the local government through its various health and nutrition programs in the community. For instance, aside from the presence of a health center, *Botika sa Barangay* that sells generic drugs at affordable prices can also be found in the community. Added to these are health and nutrition programs such as family planning and responsible parenthood, maternal care, child care, breastfeeding, food supplementation, and immunization program for children. Awareness program on control for dengue and rabies was also launched and implemented in the barangay. Noticeable also is the decrease in nominal allocation for food after industrialization. The share might have decreased but given the fact that most families now earn better than before because of wage labor, rental accommodations, and other business enterprises, the actual expenses for food could have actually remained just the same.

As mentioned earlier, it is noteworthy that the closure of Intel, one of the largest computer companies in the Gateway Industrial Park, has resulted to loss of job for its employed migrant workers. Some families therefore who are into rental accommodation business have experienced income loss when these workers left the workplace and moved somewhere else to look for another job opportunity. This apparent dependency on migrant workers as income source has offered some risk. For instance, the economic downturn in 2009 (which is actually a global phenomenon) has not sustained the promise of a good fortune not only for accommodation lease business but also for other small businesses in the area which depend also on revenues from migrant workers.

## **Social Capital**

While there was a perceived major reconfiguration in economic activities in the peri-urban community, including income uses and income sources, it was revealed in the focus group discussion as well

as in the survey that not as much transformation can be observed in social networks or social relationships among community members in the peri-urban barangay. They view that old customs and traditions are still maintained, where in particular cooperation still exists and reciprocity and mutual cooperation are still practiced. To some extent migrants appear to have easily adjusted or blended in with the local residents. In the peri-urban barangay for instance, 85 percent of the respondents have reported that the migrants are involved in the activities of the community. In fact, there are traditions and practices in the community in which about half of the migrants have adopted. Among the most common practices and traditions mentioned are mutual cooperation, celebration of the feast of the patron saint, respect for elders, and participation in community programs.

This result is quite contrary to findings of most studies on effects of industrialization on social networks which revealed that industrialization may reduce social capital in neighboring communities because of increased population density and anonymity as a result of in-migration resulting to lower levels of trust and cooperation (Morgan, 1979). It might be that in the case of the peri-urban barangay, the migrants have not made a significant influence to alter the existing cultural practices and traditions of the local people. Likewise, respondents indicated that they are not affected by the practices and attitudes of the migrants. Again, this is contrary to findings of other studies which indicate that in-migration may lead to lower levels of social capital particularly when migrants find it difficult to integrate into pre-existing community social networks because of ethnic and cultural differences (Miguel, et al., 2002). This is not surprising in the case of the peri-urban barangay since the key informants believe that the culture and traditions of migrants and residents do not differ very much.

Just like at the community level, social networks or social relationships among family members did not undergo major transition despite industrialization. Focus group discussions as well as household surveys indicate that household members view that kinship bond remains strong and many old family customs and traditions are still intact. In particular, the one-family-per-household tradition is still observed and very few households are seen with the presence of extended family. Those observed to have extended families are mostly households in which both the husband and the wife are employed and have secured the assistance of the mother, sister, or other relatives to look after their children and the household

while they go to work. As mentioned earlier, rural industrialization has also led to the modification in family and gender relation patterns. In particular, domestic chores for the daughters, particularly young single females with high school education, who were employed as factory workers have been reduced leaving the younger members in the family or those left at home to do the regular home chores.

## **CONCLUSIONS AND RECOMMENDATIONS**

Rural industrialization has resulted in the transformation of the countryside. The development path taken by the peri-urban barangay studied was influenced by external and internal factors. Overall, the biggest factor was the establishment of the industrial estates in the nearby barangay. The impacts of rural industrialization spilled-over to the peri-urban barangay and affected its natural and financial assets. This was evidenced by the conversion of agricultural lands to settlement and commercial sites and the emergence of other livelihood options to cater to the needs of the growing number of industrial estate workers who settled in the barangay.

Certainly, there are beneficial spill-over effects of rural industrialization that include improved access to and delivery of educational, health and other social services, improved physical infrastructure, strengthened aspirations for better education, better housing and housing facilities, generation of more employment opportunities, increased female labor participation rate, regularity and increased income, and diverse business prospects. It is also worth mentioning that despite the major reconfiguration in economic activities in the peri-urban community, the study revealed that not much transformation can be observed in social networks or social relationships among community members in the peri-urban barangay. Residents view that old customs and traditions are still maintained, where in particular cooperation still exists and reciprocity and mutual cooperation are still practiced. More so, the urban migrant workers blended well with the local community and they were able to easily adapt to each others' culture and practices.

In spite however of the beneficial effects, industrialization has likewise led to a number of negative outcomes like rapid increase in population which eventually gave way to the conversion of lands to settlement sites for housing and to commercial use to cater the service needs of migrants as well as temporary settlers. Increase in population has consequently contributed to crowded classrooms,



traffic congestion due to buses and vans servicing the workers to and from the industrial parks, increase in number of squatters, and crimes against property in some areas.

Peri-urbanization is a consequence of rural transformation due to urban expansion or rural industrialization. The effects of rural industrialization indeed spilled-over to adjoining communities which were not prepared or designed to provide public service beyond the needs of its local residents. This fact should be considered by government development planners. Authorities concerned should provide additional resources to enable them to cope with the exigencies associated with increased population due to influx of migrant workers. While the concept of peri-urbanization has been studied by academicians, it is not yet integrated in the planning and policy making. More in-depth study of its theoretical and practical bases is needed to determine its applicability and typology for more realistic planning and policy making.

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