From Mountainous Terrains to Industrial Complex: The Bataan Export Processing Zone (BEPZ) and the Freeport Area of Bataan (FAB), Philippines

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ABSTRACT

Background: The rationale behind Philippine government’s decision to establish an Export Processing Zone (EPZ) or Economic Zone was to boost the country’s development through export-oriented industries. Since the establishment of the Bataan Export Processing Zone (BEPZ), the rural town of Mariveles slowly turned into a progressive industrial complex. The identification of the changes in the land use of Mariveles Bataan brought about by the development of the Bataan Export Processing Zone from its first year of inception to 2014 was the primary objective of this research. The research was a historical description with a view of sharing the synoptic picture of the changes brought about by the development of export processing zone or economic zone and Freeport area in relation to the land use pattern of Mariveles Bataan. Primary and secondary data was the bases of the research. The study concluded that availability of infrastructures and services greatly influenced the attractiveness of the zone to foreign and domestic investors. The provisions of infrastructure external to the zone proper have positive spillover to the local community of Mariveles Bataan as well as to the national economy.

INTRODUCTION

The establishment of the Export Processing Zone (EPZ) hoped to give realization to then Pres. Ferdinand Marcos’ dream of industrialization thru export promotion. The municipality of Mariveles in Bataan province hosted the very first EPZ of the country. In 1972, the Bataan Export Processing Zone (BEPZ) was established. BEPZ hoped to facilitate the attainment of the country’s development objectives through job creations, training of skilled workers, technology transfer, and increase in foreign exchange earnings. These remained the zone’s objectives from its first year of inception up to the present. The succeeding Philippine Presidents continued to promote foreign investments in the export processing zones by signing in more laws. When BEPZ failed to fulfill its mission of countryside development through export manufacturing, Pres. Fidel Ramos signed in Republic Act No. 7916 in 1995 that created the Philippine Economic Zone Authority (PEZA) (PEZA, 1995). The Bataan Economic Zone (BEZ) replaced Bataan Export Processing Zone. The government hoped to promote and speed up a viable and balanced industrial, economic, and social development that would uplift the living conditions of the people especially in the countryside (Ibid). On October 2009, Pres. Gloria Arroyo signed into law Republic Act No. 9728. Republic Act No. 9728 or the Freeport Area of Bataan Act converted the Bataan Economic Zone into a Freeport Area. The Freeport Area of Bataan (FAB) was a special economic zone and Freeport with a dedicated governing authority, the Authority of the Freeport Area of Bataan (AFAB). The Act allowed the zone to fulfil its original mandate of becoming a catalyst for progress and development and to create employment and livelihood opportunities to the people. Since then the once mountainous town surrounded by water and relied heavily on fishing and farming as means of subsistence gradually became a progressive industrial complex.

The establishment of the Bataan Export Processing Zone or Economic Zone and Freeport Area of Bataan to the municipality of Mariveles has contributed to the absorption of labor in Bataan Province and open opportunities for other socio-economic conveniences in the modern sector of the economy. Hence, the focus of this research was the presentation of the significant changes in the land use that had taken place because of the development of
the Export Processing Zone (EPZ) from the first year of its inceptions up to 2014. Most of the existing studies view the Export Processing Zone as a national project but there was an absence of its benefits and effects to the local community. Though some studies have offered objective insights into the existing conditions in EPZ, there was an absence of comprehensive information on the changes in the land use that have taken place because of the establishment of EPZ. Most studies focus on EPZ and its effect on the national economic growth but not the effect of EPZ’s on the local economy. This research hoped to present the missing literature needed in understanding the effects of the export-processing zone not only on the Philippine society but also most especially to the local community of Mariveles Bataan.

MATERIALS AND METHODS

The study adopted the historical method to show the changes in the land use of Mariveles Bataan because of the establishment of the Export Processing Zone. The study was a qualitative research that utilized the archival records from the municipal and the government agencies involved in the operation of the zone. Hence, it was a compilation of available primary and secondary sources of information from the reports of the Export Processing Zone Authority (EPZA), Philippine Economic Zone Authority (PEZA), and Authority of Freeport Area of Bataan (AFAB). Documents accessed from the Department of Labor and Employment, Department of Trade and Industry, Institute of Labor Studies, libraries, and certain EPZ-based enterprises. Publications such as journals, Annual Reports, Philippine Statistics Authority, seminars and conference reports, newspaper and magazine articles, doctoral dissertation and theses, and papers on related topics were sources of data. Various documents such as maps, road plans and road constructions and town planning were included. Conducted were unstructured and structured key informant interviews of some personnel from the Mariveles Municipal Office, local government officials and the zone’s authorities.

Results

Mariveles was one of the eleven municipalities and one city that comprised the province of Bataan in Central Luzon. It was about 107 miles (173 kilometers) away from Manila by the North Luzon Expressway, Gapan-Olongapo Road, and Roman Highway. Travelled time by land for public transportation was around 4 hrs while 2.5 hrs for private vehicles; about 25 minutes by air; and 55 minutes by sea (BEZ Report, 2008). The municipality of Mariveles has a total land area of 153.9 square km (59.4 sq mi), representing 12% of the total land area of Bataan. Of this, about 69% consist of the pastureland, 19% of forestland, 6% agricultural lands, and the remaining 6% for residential and industrial use (NCSO Record, 2010).

Mariveles was very much underdeveloped before the establishment of BEPZ. Road networks were at low standard. Business was quite poor. The stores catered to community residents whose main livelihood depended largely on fishing and farming. A very small percentage of the population employed in NASSCO (National Steel and Shipbuilding Company), public works in Sisiman and in National Mental Hospital (Municipal Development Plan Report, 1980).

Taken into consideration its geographical and economic characteristics, Mariveles hosted the very first export-processing zone of the country. Early proponents of export-processing zone considered such characteristics of Mariveles as potential hubs for non-urban, decentralized industrial development. They favored placing export-processing zone away from urban and populated centers to encourage job creation and economic development in rural areas and to reduce the rural-urban migration. Mariveles was a suitable place. Aside from its deep-water bay capable of accommodating ocean-going vessels, it has an existing repair and pier facilities with berthing space for at least three ocean-going vessels. The National Steel and Shipbuilding Company became Bataan Engineering Company (BASECO) in order to provide serviced for the new zone. The development of modern and efficient facilities in the site, which was about fifty-five kilometers away across Manila Bay, may relieve congestion at the port of Manila. Furthermore, the availability of government reservations and public lands in Mariveles can accommodate the establishment of industries and there was no need for expropriation proceedings to acquire all the lands needed for the development of the new zone. The selected site for the BEPZ was the Barrio Nassco, the land formerly occupied by the military reservation of the United States. Given up in 1965 after 40 years of occupancy, that hectares of lands settled Barrio Nassco, BASECO, and the Bataan Export-Processing Zone.

BEPZ, according to its master plan, has a total land area of 1,209 hectares of which 345 hectares devoted to industries, 374 to housing, and 490 as green area. The zone rented all lands and provided the necessary infrastructures of water and electricity. The BEPZ built its own water treatment facilities. The factories have the option to rent standard factory buildings (SFB) for light industries or construct their own buildings like the Ford Stamping Plant. BEPZ built also dormitory, bed-spaces for 3,672 residents and 754 apartments as housing facilities rented out to the zone’s employees.

As of 2008, PEZA-BEZ recorded a total land areas of 1,742.4 hectares divided into developed and underdeveloped areas. The developed areas divided into net industrial area (166.347 hectares),
roads/rights of way/open area (148 hectares), housing/community area (66 hectares), and other establishments (100 hectares). There were spacious eleven Standard Factory Buildings SFBs) with working floor area of 2,784 sq. m. ready for lease with utility connection, security walls waste disposals elevators and ready services for construction. PEZA-BEZ, expanded the housing facilities to 19 dormitories with 380 rooms; 24 units of Type A housing; 32 units of Type B housing; 152 units of medium cost housing; 282 units of low cost housing; and 68 units of Executive Housing (Ibid, 2008). There were recreational facilities that included basketball, volleyball, and tennis courts, and fourteen-lone bowling complex alleys. Found right inside the zone complex were hotels, clubhouse, and restaurants. Three private developers were responsible for building those housing units: Santa Monica Development Corporation, Regent Crest Corporation, and the Carinosa Housing Subdivision. In charged to build accommodation on the western part of the zone were Carinosa and Santa Monica Development Corporation while on the northern part was Regent Crest Corporation (Remedio, 1996).

The Freeport Authority of Bataan has a total land use of 1,691.55 hectares. The leased area was 178.52 hectares of which 86.51 hectares was already leased to different locators. The total usable building area was 101,541.00 square meters; the total building area leased was 911,230.00, which implied that only 10,311.00 square meters remained leasable. Specifically out of 1,691.55 total land areas occupied by FAB, the commercial land area was 148.68 hectares. Industrial land area was 545.93 hectares. The tourism and recreational land area was 57.5 hectares. The Bataan Shipyard and Engineering Company (BASECO) have a land area of 380 hectares. Agricultural plantation and orchard land occupied 49.53 hectares. The forestland area was 377.41 hectares. Residential land area was 469.13 hectares. The institutional land area was 5.80 hectares while the remaining land area was 38.02 hectares (FAB Report, 2014).

The changes in the land use did not only take place within the perimeter of the export-processing zone and Freeport area. The infrastructural development spill over to the local community of Mariveles. The socio-economic progress as well as the rapid population increased brought about by the export-processing zone necessitated the conversion of the pasturelands and agricultural lands into residential, commercial, and institutional areas.

Based on the Report of the Mariveles Municipal Planning and Development Office (2013) the educational institution consisted of sixteen (16) public and one (1) private school; four (4) public and five (5) private high schools; two (2) Vocational and Technical School and two (2) colleges: the Polytechnic University of the Philippines and the Maritime Academy of Asia and the Pacific. Vocational training was also available at the local Manpower Training Center and in Technical Education and Skills Development Center (TESDA).

Health facilities consisted of two (2) hospitals; nine (9) private clinic-outpatient facilities; five (5) maternity clinics; two (2) clinical laboratories; and fifteen (15) pharmacy stores. Beside the Mariveles Municipal Hall was the Main Health Center and Rehabilitation Facility for Persons with Disabilities (P WDs). Each Barangay has health station. Inside the zone were 24-hours Paramedics First-Aid Center and a thirty-three (33) beds clinic where medical personnel assist in various programs for health and safety needs of the employees.

Public service facilities included fire department, police station, and military units, local or Barangay police to ensure protection, peace, and order inside the export-processing zone and that of the whole town. The salaries and wages of the employees of the zone flowed into the local economy created large to small –scale enterprises such as market, groceries, sari-sari store, eatery, laundry shops, computer shops, beauty parlor, and other real estate development. Meanwhile communication infrastructures included cable and internet satellites, telecommunication facilities provided by PLDT, Com-Clark, Globe Telecom, Digitel Telecom connected the people of Mariveles and the locators of the export processing zone and Freeport area of Bataan (FAB) within minutes to any part of the world. Banks, financing institutions, LBC, and Western Union satellites were available. The once rural and poverty-stricken town turned into the richest municipality of Bataan province since 2001.

**Discussion:**

Mariveles was a rural municipality with no infrastructural characteristics appropriate for a major industrial development before the establishment of the Bataan Export-Processing Zone (BEUZ). Actually, the foundation of BEUZ had to start from nothing. The preparation of the site included massive earth-moving and engineering work, flattening of the rugged mountainous terrains, and earth filling construction of roads and installation of facilities.

The 1972 EPZA’s Land Use Plan indicated six phases of development. The total land area of 1,209 hectares divided into Six (VI) Phases of Development. Based on the plan Phase 1 was reserved for light industries. Included in light industries were manufacturers of ceramics and glassware, confectionaries, cosmetics, electronics and electrical products, food processing, paints, oils and waxes, optical products, plastic products, pharmaceuticals, furniture, garments, toys and handicrafts, knitted goods, leather products, light metals, precision instruments, knitted goods, rubber products, threads and yarns, and other light, labor-oriented industries. Automotive plants and parts manufacturing and other medium-industries was for
Phase 2. Metal and machinery works and other heavy industries for Phase 3. Ship building industries was for Phase 4. The expansion for Phase 5 while airport and its facilities for Phase 6 (FAB Report, 2013). The map below showed the 1972 Land Use Plan of Bataan Export Processing Zone.

Bataan Export Processing Zone (BEPZ) emerged as a new community with available infrastructural development ready to provide the needed serviced. The once mountainous terrains became an industrial complex with houses and residential facilities, schools, sport facilities, clinic, ecumenical chapel, Manpower Training Center, and new administration building. BEPZ created new roads, cemented old crooked roads, and widened small roads. There was a luxury facility built for executives primarily and foreign visitors on top of the hill---Bataan Hilltop Hotel. Nearby was the Landau Hotel owned by a corporation headed by Pablo Roman, Sr., one of the proponents of the Bataan Export Processing Zone.

**1972 Land Use Plan of the Bataan Export Processing Zone BEPZ):**

![1972 Land Use Plan of the Bataan Export Processing Zone BEPZ](source)

However, It soon became clear that Bataan Export Processing Zone would not fully flourished in such an environment unless there was an easy access to sea ports or airports, energy and water sources, good roads, above average (by country standards) and communication facilities. Despite the effort of
the Export Processing Zone Authority (EPZA), geographical location became problematic for BEPZ. The facilities for barge loading and unloading mechanism in Bataan Shipyard and Engineering Company (BASECO) was not sufficiently equipped to accommodate the needs of the firms in the BEPZ considering that the route across Manila Bay was only 55 kilometers in length. By land, it took about four hours road travel from the BEPZ to reach the international ports in Manila and vice-versa. Airlifting cargo was too expensive by air transportation and raw materials imported by the firms were bulky and heavy. Major services and industries were located in Metro Manila therefore in case of emergency they must contend with the time to go to and from the BEPZ. All these added to the problems encountered by Export Processing Zone Authority. Aside from the massive labor disputes in the eighties and the socio-political problems in the county, geographical location and insufficient serviced facilities affected the operation of BEPZ that resulted to extensive decline to the number of firms inside the zone.

However, when political and labor relations climate improved after 1992, many foreign investors decided to locate their offshore operations at BEPZ. To lure both foreign and local investors the well-developed infrastructure, economic concessions, and attractive package of fiscal incentives were widely advertised. Similarly, the Philippine Economic Zone Authority (PEZA) took care of the administration of BEPZ and the latter became Bataan Economic Zone (BEZ) in 1995.

The Bataan Economic Zone ensured that adequate and better infrastructures such as roads, ports, water, and sewage treatment were in-placed to attract more investments after the failure of Bataan Export Processing Zone to maintain its locators. When the number of firms decreased enormously in the midst of the eighties up to the first years of the nineties, it was a big challenged for Philippine Economic Zone Authority and Bataan Economic Zone to regain the confidence especially of the foreign and local investors.

The geographical attributes of the host community, the distance accessed to firms’ targeted markets, the infrastructure like transportation and communication facilities and the availability of labor resources have a material influenced on the attractiveness of the zone. BEZ bragged of a vast network of four lane roads inside the industrial complex. A 37-kilometer stretch of concrete roads connected the Bataan Economic Zone to the capital city of Balanga Bataan. An alternate route of 7 kilometer passing the zigzag road allowed travelers to view the scenic coastline of Mariveles. Just for the road improvements alone BEZ spent P4,84,681.66 while the total amount spent for major infrastructure project for the period 2001 to 2007 amounted to P431,157,689.86 (Ibid, 2008). This showed the seriousness of PEZA-BEZ to improve its services to lure more investments to the zone. More investments meant more job opportunities for the people and more economic gain for the country.

The changed in the land use by BEZ was not purely for roads, factories, recreational facilities, schools, and other infrastructural development. BEZ maintained 1,500 hectares of forested watershed aside from 1,742.48 hectares of industrial complex. Within the well protected mountainous and forestry area was a dam built to supply water to the industrial complex. The adequate water supply was another major advantage of BEZ. The 6 million cubic meters capacity dam and complemented by a water treatment plant delivered approximately 1,200 cubic meters of water per hour or 28,000 cubic meters of water daily. This was by far the largest water supply among the different PEZA economic zones (Ibid, 2008). The natural mountainous terrain of Mariveles became beneficial to the Bataan Economic Zone in this aspect. Aside from the abundance of labor supply in Mariveles, there was also an abundance of water supply necessary for the everyday operation of the firms and the community inside the zone.

The clean and unpolluted environment of BEZ made it an ideal site for an Info Tech Park. An available place for park was right there inside the zone. Therefore, aside from being haven of garments, wearing apparels, and textile, the Bataan Economic Zone was ideal for food processing and water intensive industries. The availability of abundant clean mountain water was appropriate to water intensive industries such as food processing. So far, a soya oil producing company—Grains Terminal of ATI and Warrensburg Manufacturing Incorporated was already in BEZ. The food industry envisioned more investors and for such too happened, the zone allocated already a proposed Food City inside.

The Philippine Economic Zone Authority (PEZA) handed the administration of Bataan Economic Zone (BEZ) to the Authority of the Freeport Area of Bataan (AFAB) in 2009. The AFAB intended to attract more locators in the manufacturing, Business Process Outsourcing (BPO), electronics industries and green industries (FAB Report, 2014). The map below showed the existing land used of the Freeport Area of Bataan (FAB) as of 2013. Noticeably, the economic zone and Freeport area has expanded already to six barangays of Mariveles. Expansion covered the Barangays of Baseco, Sisiman, Camaya, Maligaya, Malaya, and Alas-asin. In the 1972 Plan, BEPZ covered only Barangay Nassco-Baseco. Barangay Camaya already existed but as the Poblacion of the Municipality. The rapid population increased due to the presence of the export-processing zone or economic zone to Mariveles created two Barangays - Malaya and Maligaya. In fact, Mariveles comprised only of nine (9) barangays in 1972 before the establishment of BEPZ. After three (3) years of
BEPZ’s existence, the National Census and Statistics Office in 1975 listed eleven barangays under the jurisdiction of the Municipality of Mariveles. From then on, the town experienced a rapid increased of population that made it the most populous municipality of Bataan province. In fact, the Census of Population (2010) registered eighteen (18) barangays under the Municipality of Mariveles with a population size of 112,707. These thousands of people obviously have made an impact in the land use pattern of Mariveles. Similarly, the increasing number of locators in the economic zone and Freeport area will alter the land use pattern of the host community.

The existing land use map of the Freeport Area of Bataan below showed that the four phases of development as indicated in the 1972-land use plan was already in-placed. There was an expansion in the housing, residential, and recreational facilities. Aside from the utilities existed since BEPZ’s time, built were new facilities and utilities including the Standard Factory Buildings (SFBs). Other used of lands inside the Freeport Area were as eco-tourism, tourism, park, panoramic, orchard, forestry and fishing boat landing. A proposed sanitary landfill was included in the existing land use plan. However, Phase VI that was supposed to be the airport area no longer included in the existing land use while expansion was part of Phase V.

Existing Land Use Plan of the Authority of the Freeport Area of Bataan (FAB):

![Existing Land Use Plan of the Authority of the Freeport Area of Bataan (FAB):](image-url)

The Authority of the Freeport Area of Bataan (AFAB) continuously attracted both foreign and local investors. The building of high-end standard factory buildings supposed to attract more investments. Other future developments include a Freeport community with mid to high-end residences with wide recreation areas and parks. A Build-Operate-Transfer (BOT) of large ships and cargo which would be an Asian transport hub complementing linkages to Subic and Clark. Completion of needed infrastructures like the hotel, golf course, duty free complex, historical walk-ways and other attractions for the development of tourism.

All these improvements hoped to lure more investments to the Freeport Area of Bataan. The changed in the land use pattern geared towards providing facilities and infrastructures that would be beneficial to the operation of FAB. (See photos at the end). Better infrastructures complemented the abundance of skilled and trainable workers. Superior incentives with better facilities and services made the Freeport Area of Bataan attractive to both foreign and local investors. Proof of this was the 20,017 workers employed FAB’s locators as of July 2014 (ibid). The number of employees continuously increased as the number of locators also increased. If
this trend continued, then the Authority of the Freeport Area of Bataan was on its way of fulfilling its vision of becoming the Freeport of choice in the country by 2020 and the center of trade, innovation, and sustainable development in Asia thru work-life balance and global competitiveness (ibid).

Conclusion:

The experienced of Bataan Export-Processing Zone showed the importance of providing the infrastructure necessary for the zone. These included improvement of roads, ports, and airports near the designated zone location. The Philippine government and the Authority of the Export Processing Zone have to secure the infrastructure and facilities needed for the zone’s operation. Furthermore, it was necessary to have a steady supply of electricity and water (building of new power plant/dam), and expanding the country’s international communication capacity as part of the services offered by the zone to its locators. The zone rented all land and provided the necessary infrastructures of water and electricity at subsidized rates as an additional economic incentive to attract firms. The availability of infrastructures and services greatly influenced the attractiveness of the zone to foreign and domestic investors and the eventual performance and success of the firms established in the zone. The provisions of infrastructure external to the zone proper have positive spillover for Mariveles, the host community and for the national economy by facilitating transportation and communications (telephones, roads, and ports). In this regard, that the formerly mountainous town of Mariveles that depended highly for fishing and farming as means of subsistence turned into an industrial complex. All those socio-economic benefits resulted from the establishment of the economic zone and Freeport overflowed to the neighboring towns and eventually to the national economy.

REFERENCES

Export Processing Zone Authority Annual Report, 1978–1995

B. Journals/Working Papers/Books