



# Rural to urban land conversion in Indonesia during boom and bust periods

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Received 4 June 1999; received in revised form 27 September 1999; accepted 20 October 1999

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## Abstract

This study discusses land conversion in the urban fringes of large cities in Indonesia during the period of economic boom and time of economic crisis. The land conversion in the 1990s had been rooted in excessive land development permits granted by the National Land Development Agency, which has in turn induced speculative land-business undertaking. Nevertheless, the current economic part crisis has caused land conversion to slow down, and created unutilized land in which a great part of the investment becomes idle. © 2000 Elsevier Science Ltd. All rights reserved.

**Keywords:** Land conversion; Economic crisis; Land development permit system

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This study deals with land conversion, the process by which land is converted from agricultural to urban uses and from one urban land use to another, in the fringe of large cities in Indonesia. The recent development of investment in housing and industrial estates, particularly in the peripheral areas of large cities, has rapidly transformed the fringe areas from dominated agricultural areas into large subdivisions and industrial estates (Firman, 1997). As one can observe, land conversion has not only affected the prime agricultural land, notably in the urban fringes, but has also taken place in many areas which have been designated as conservation areas functioning for water recharge, such as Jalur Puncak (Puncak Strip) in South of Jakarta, which could result in serious negative impacts on the environment. There are many factors involved in land conversion, but lack of authority to manage and control it is a major one (Akbar et al., 1997).

Land conversion is a normal part of urban development in both developed and developing world (see Pierce, 1981; Lockeretz, 1989; Tsai, 1993; Winoto, 1996; Kustiwan, 1997; Yeh and Li, 1999). As Grigg (1995) maintains, the primary reason for the conversion of agri-

cultural land is that under urban uses a much higher rent is recovered. Meanwhile, in the Pearl River Delta in China, agricultural land loss has been aggravated by land speculation resulting from the property boom in Hong Kong in the early 1990s (Yeh and Li, 1999).

Land conversion has both direct and indirect consequences. The direct impacts include loss of prime agricultural land, loss of agricultural jobs, loss of investment in irrigation infrastructure in the areas, and natural landscape destruction and excessive exploitation of groundwater (Bryant et al., 1982; Lockeretz, 1989). Indirect impacts include the influx of people from the urban areas into the fringe areas.

Land conversion in Indonesian cities has largely been uncontrolled. The process tends to become a 'land business undertaking'. One of the consequences is that many of the land areas that had been acquired for a long time, but have not been developed, become idle, creating unutilized land (*tanah tidur*: 'sleeping land').

Land conversion in Indonesia has occurred at a very large scale, hence it could greatly affect the production of foodstuffs, as well as waste investment in irrigation of agricultural farm lands, notably the paddy fields. There is no evidence that any country has been able to limit agricultural land conversion successfully without causing high pressure on land prices for other purposes (Bernstein, 1994). Japan, for instance, has artificially preserved agricultural land, but it has caused the inflation of

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rice prices to seven times the world market price and inflated the cost of residential housing to the highest in the world (Bernstein, 1994 cf. Mekvichai et al., 1990)

At present, many Asian countries, including Indonesia, are being shaken by a severe economic crisis which had its origin in the mismanagement of short-term macroeconomic policy (see Garnaut, 1998). Meanwhile, the economic crisis in Indonesia has been in particular caused by the unhedged and short-term offshore bad debt of Indonesia's private enterprises (McLeod, 1997), and bad banking system, in which many national private banks have overextended in providing loans to persons and firms that are affiliated to the banks. Nevertheless, the Indonesian crisis does not exist in isolation, but is inseparable from a political crisis connected to corruption, collusion, and cronyism in the government. Moreover, riots in many places in Indonesia recently, including Jakarta, have exacerbated the crisis.

The crisis has severely affected the national economy. In fact, economic activities in major cities have greatly shrunk, including the property sector. Meanwhile, urban physical development, including subdivisions and new-town and industrial estate development in fringe areas, is slowing down.

Bearing this context in mind, this study will examine land conversion in the fringe areas of major cities in Indonesia, notably, Jakarta, Surabaya and Bandung. It will discuss different problems related to land conversion both during the periods of economic boom and of economic crisis. The article will be divided into three parts: the first will discuss the land conversion and its process during the period of economic boom; the second will discuss land conversion during the economic turmoil, and the third will conclude the discussion.

### Urban development and land conversion in the fringe areas

The admirable national economic growth during the last 20 yrs (1975–1996) brought immense physical development of large cities in the mid-1990s, including land conversion in the outskirts of large cities. During 1991–1993 alone, the conversion of agricultural land to urban land in Indonesia is estimated to have reached more than 106,000 ha, including 58,000 ha (54.7%) of residential areas; 16,452 ha (15.5%) of industrial land; 5,210 ha (4.9%) of offices; and 26,774 ha (25.3%) of other urban land uses (State Ministry for Environment, 1997).

The city of Jakarta experienced an economic growth rate between 6.0 and 8.3% during the period from 1987 to 1997; about half the investment in manufacturing, finance, trade and service sectors in Indonesia is located in Jakarta Metropolitan Area (Jabotabek: Firman, 1997). Urban economic development has affected the changes in the structure of Jabotabek, characterized by rapid changes

of land use in the urban centers, as well as conversions of prime agricultural land to urban land uses in the fringe areas, as one can also observe in other large cities in Indonesia, such as Surabaya and Bandung.

By the mid-1990s there were 25 large subdivision projects in the Jakarta Metropolitan Area, ranging from 500 to 30,000 ha in size, and there were hundreds of small projects of under 500 ha (Firman, 1997). These new large settlements are mostly made up of low-density, single-family houses, and exclusive residential areas for middle- and high-income groups (Leaf, 1991, 1993). This development has in turn induced a high population influx to the peripheral areas of the city. The development of the property sector in Jakarta during the 1990s, including office and retail space and condominiums in the city center and residential areas in the outskirts is also reflected in the increase of domestic bank loans provided to this sector, from only Rp.8.9 billion in 1989 to Rp.24.5 trillion in 1993 (Properti Indonesia, May 1994), and had even reached Rp. 72.6 trillion by December 1998 (Properti Indonesia, March 1999).

In the fringes of Surabaya, the second largest city in Indonesia, during 1990–1995, sizeable areas of agricultural land had been converted into residential and commercial areas, such as hotels, offices, banks and shopping malls; condominiums and apartments. The paddy fields in the areas have substantially been converted into seven large sub-divisions, ranging from 200 ha to 1000 ha in size, and 28 industrial estates which range in size from 15 ha to 900 ha (Budiman et al., 1996).

Similarly, in the outskirts of Bandung, the third largest city in Indonesia, almost 3300 ha of 'sawah' (paddy fields) had been converted to urban land use, notably residential areas, during the period from 1991 to 1996 (Sarvitri et al., 1997). The conversion has not only squeezed the agricultural areas, notably paddy fields ('sawah'), but also has reduced the productivity of remaining 'sawah' from 4.5 to 3.4 t/ha per harvest (Edrijani, 1994). Moreover, the harvesting frequency has dropped from three times per year to twice or even once a year, whereas damage to the tertiary irrigation channels resulting from construction for industrial and housing development has in turn affected the cultivation and harvesting patterns.

Moreover, rapid economic growth in Indonesia has in turn rapidly increased the demand for industrial land, notably since the late 1980s, when the government permitted private companies to manage industrial estates. By end-1998, there were 65 industrial estates in Indonesia, of which 25 (nearly two-fifths) were located in Jakarta Metropolitan Area and 9 (almost 15%) in Greater Surabaya (Manajemen Usahawan Indonesia, April 1999; p. 6). In addition, many light manufacturing industries such as electronics, footwear and plastic, have also been developed individually outside the available industrial estates. This development has in turn intensified land conversion in the fringe areas of

large cities, where most of these industrial activities are located.

Although large subdivision and industrial estate development in Indonesia is governed by 'Keppres' (Presidential Decree) 53/1989, which clearly states that the development should not take place in the preservation and conservation areas or on the prime and irrigated agricultural land, there have been many violations of the decree because it is not followed by more technical regulations (Firman, 1996), whereas the demand for land in the areas is increasing tremendously.

Land utilization in fringe areas is frequently characterized by 'conflicts' involving communities of land owners, the developers, as well as the local government (see also Surbakti, 1996; Suryanto, 1996). The 'conflicts' have often ended up with the eviction of the old occupants. Land acquisition by the developers is often carried out with a 'negotiated' price but no agreement. The developers occupy a 'monopsonic' position, as land owners do not have any other options to whom they could sell their lands. Once a land development permit ('ijin lokasi') is granted to a developer, others are not allowed to purchase and develop land within the permit area, unless they obtain permit-holder's formal consent (Firman, 1997).

According to Archer (1993), land development permit system could play several roles in urban land development: (1) to guide the location of private land and building development projects; (2) to coordinate government and private-sector development activities; (3) to facilitate land assembly for large-scale development projects, such as new town and industrial-estate development (p.39). However, the land development permit system in Indonesia has been abused for speculative land trading, so that the potential role of the system does not really function.

In order to acquire land for residential, industrial and tourist-resort development, developers or investors should first make a request for investment clearance (ijin prinsip) from the Investment Coordinating Board (BKPM), which checks that the proposed investment is not on the negative list. Once the developers hold a clearance, they may apply for land development permits to the National Land Agency (BPN) whose tasks are to manage land records, to process land title and to administer permits for land development. Land development permits (ijin lokasi) will be issued if the development proposed by the investors is in line with regional and local development plan (Akbar et al., 1997). Requests for areas less than 5 ha are made to the BPN District office where the project is located, whereas for areas between 5 and 200 ha and above 200 ha to BPN Provincial office and the BPN Central office in Jakarta respectively. The BPN should respond to the requests within 12 working days, but in reality it could take more than one month, because this agency often needs to have intensive coordination

with other related offices. The land development permits are valid for one year, but can be renewed for an additional one year, provided the condition that the developers have been able to acquire the land at least one-fourth of the area. Nonetheless, a number of land development permits are granted to developers who have little or no intention of developing most or all of the areas (Arcadis Euroconsult, 1999; 4.8).

Once the permits are granted, developers are legally able to acquire the land within the boundary of permits through direct negotiations with the land owners, often with assistants and supports from head of sub-district ('Camat') (Arcadis Euroconsult, 1999; pp. 4–6). Land owners are required to sell land to the granted developers only, while the process of 'land transfers' from the land owners to developers is often unfairly executed. The land owners themselves have to accept unfair compensation, whereas the local governments tend to 'take sides' with the developers. There have been several protests and a struggle among land owners for fairer compensation, but in most cases they finally found themselves powerless against developers who often directly and indirectly intimidate them. A recent study on land conversion in the fringes of Bandung City (Sarvitri et al., 1997) shows that about two-thirds of the surveyed agricultural households who had given up their land to developers acknowledge that the primary reason for them to sell the land, is because they had no choice but to release it ('terkena proyek': hit by development project), although with unfair compensation. However, for many land owners, notably in the Jakarta fringes, selling the land is often more profitable than utilizing it for paddy fields. In fact, some owners of irrigated agricultural land simply destroyed the tertiary irrigation channels, thereby providing themselves with a good reason for selling land to developers who subsequently converted into non-agricultural land uses (Firman, 1997; p. 1042).

The land acquisition process in major cities in Indonesia usually involves brokers ('calo tanah') who extract large amount of money as a commission fee and make the process more complicated. A study shows that the 'calo tanah' in Jakarta collect about 10% from the transaction valued less than Rp. 100 million, and about 5% otherwise (Dorleans, 1994; p. 50). This reflects the absence of effective mechanisms to control land transfers on 'equal' bargaining positions (see also Ferguson and Hoffman, 1993; Firman, 1997). By mid-1990s land in the fringe of Jakarta had been largely controlled by private developers who build new towns and industrial estates. Meanwhile there had been massive transfers of land ownerships from the previous owners to the developers, resulting in many people giving up their land and move from their homes to look for a new living in other areas (Firman, 1997).

Development permits for almost 72,000 ha were issued for subdivision during the period from November 1993

to July 1998 in Jakarta fringe areas (Botabek: Bogor-Tangerang and Bekasi). This amount of land would be enough for residential areas of more than 8.5 million people, nearly the total population of Jakarta at present, assuming 60% coverage and 200 persons/ha (Arcadis Euroconsult, 1999). It is estimated that this amount of land would be more than sufficient to meet the demand for land for low-cost housing in Jakarta Metropolitan Area up to 2018, and it is questionable if the BPN should still issue permits for land development in this area. A rough estimate shows that by early 1990s, about one-half of the total land area under land development permits was held off the market by the developers (Leaf, 1991, 1993). In northern Bandung, more than 150 land development permits had been granted by December 1998, covering 4700 ha of land which is not supposed to be developed, because of its function as forest conservation area (1700 ha), vulnerable disaster areas (1000 ha), and irrigated land (1000 ha) (Akbar and Subroto, 1999). As Archer (1993) correctly points out:

...the issue of [land] permits [in Indonesia] has facilitated the assembly and development of much land, but many permits have been issued for excessive areas of land relative to the applicants' ability and/or intention to develop it (p.14).

Meanwhile, domestic bank loans for the property sector increased significantly, from Rp. 4.0 trillion in 1992 to Rp. 16.0 trillion in 1996 (Jurnal Properti, July 1997). The amount of property loans for 1996 included Rp. 6.2 trillion (39%) construction loans and Rp. 6.9 trillion (43%) real-estate loans, notably for land acquisition. Nevertheless, in most cases developers obtained loans from banks of their own group of businesses, which often results in violations of standard of loan worthiness and the legal-lending limits ('Batas Maximum Pemberian Kredit': BMPK) in accordance with the 1992 Indonesian Banking Law, which states that banks are only allowed to provide loans to a maximum of 30% of the total bank capital to affiliated firms, including property firms, and affiliated individuals. In fact, many national private banks have over-extended in providing loans to property firms. As Haila (1997) argues, the excessive investment in property sector could adversely affect production and economic growth through three mechanisms: (1) reducing productive investment; (2) increasing offices and industrial rents, and therefore production costs; and (3) increasing costs of labor power reproduction, and thus increasing wages (p.15).

The annual growth rate of property loans over the period from 1993 to 1996 reached 38.0%, whereas those of trade and manufacturing sector were only 16.1 and 19.4% respectively, while that of total loans was 24.0%. Meanwhile, the share of property loans, which reached 13.3% of total domestic loans in 1993 (Rp. 163.01 tril-

lion), increased to 18.8% out of total loans of 313.3 trillion in 1996 (Jurnal Properti, July 1997).

The capacity of the local government to manage and implement spatial plan ('Rencana Tata Ruang'), particularly for monitoring and controlling land conversion, has been inadequate, whereas pressures from the developers are immense. The National Land Development Agency (BPN) has recognized this problem, and therefore issued a ministerial decree in October 1996 to freeze the granting of land development permits in Jakarta Metropolitan Area. However, in early 1997 the agency relaxed this decree by granting the permits to selected developers for unclear reasons, but most likely because of pressures from several parties connected to large-scale housing development in the area, most notably the developers themselves.

Until very recently, the national economic development policy was focused on attracting foreign as well as domestic investment. This policy has largely driven the Investment Coordinating Agency (BKPM) which has no concern with the negative impacts of physical development, to grant investment permits to both foreign and domestic investors in order to reach the national investment targets. Under these circumstances, land development permits as a tool to control land-use development are largely neglected, whereas investors should be provided with the easiest way to obtain land for their operation, even by relaxing the requirements for land development permits, if necessary. In fact, the government substantially shortened and simplified the process of issuance of locational permits in October 1993 in order to create incentives for investment development in Indonesia. Permits for land development for areas of less than 200 ha can be granted by the local government, which was not formerly the case (Firman, 1997). It may have put more pressure on land conversion, as both the local government and the local office of BPN remain weak in land management, administration and control.

To sum up, land conversion in the fringe areas is out of control, as it begins with an uncontrolled issuance of development permits. Development of investment in housing and industrial estate business has greatly transformed urban fringes from prime and irrigated agricultural land to new residential and industrial areas. Meanwhile a huge amount of loans had been provided for the property sector. Urban physical restructuring is indeed a normal part in urban development, but land conversion in the fringe areas is largely uncontrolled and reflects speculative land trading. The recent land development permit system in Indonesia basically reserves the land exclusively for approved developers, which in turn encourages speculative land business with resultant high profits (see also World Bank, 1994; Firman, 1997 p. 1042). Meanwhile, the land-use plans which supposedly control land conversion do not seem to work effectively, because of inconsistencies and weak enforcement.

## Impacts of economic crisis: 1997–1998

The current economic crisis has hit the urban economy very badly, notably in the manufacturing and property sector. The rate of economic growth of Jakarta City for the fiscal year 1998–1999 is estimated to reach  $-7\%$  (see Firman, 1999), which has never been the case in the past.

According to Simanungkalit (*Jurnal Properti*, March 1999, 3.2), a positive rate of economic growth will yield growth elasticity in construction sectors between 1.25 and 1.50, whereas negative rate of economic growth will result in growth elasticity in this sector between  $-2.5$  and  $-3.0$ . Using these figures and the fact that rate of national economic growth reached  $-13.7\%$  during the fiscal year 1998–1999, the construction sector is estimated to have contracted 39.5%. Similarly, the construction sector in the city of Jakarta should decline by about 17.5%. The property sector has been severely affected by the economic crisis because of oversupply resulting from aggressive expansion. This sector in 1998 was in the worst situation ever. Nevertheless, it is expected that this sector will improve a little in the fiscal year 1999–2000, although the property sector in Indonesia is expected still to be sluggish over the period.

Large-scale housing development in the fringe areas of large cities has now slowed down, and in some cases has completely stopped. By April 1999 there were only about 50 out of 500 large-scale housing projects in Jakarta Metropolitan Area still in proper operation (*Properti Indonesia*, April 1999, p. 13). Similarly, industrial estate development in the outskirts is expected to go down by 30% during the period from 1997 to 1998 (*Properti Indonesia*, February 1998), as demand for industrial land had dropped significantly. It has resulted in 47,000 ha of idle industrial estate land by February 1999. As reported, the construction of almost 2400 ha of industrial estate in Jakarta has been put on hold since the beginning of the economic crisis eruption in July 1997 (*Indonesian Property Briefs*, 21 December 1998). Moreover, John Lang LaSalle/PT Procon Indah, a prominent property consultant, estimates that in the year 2000 demand for industrial estate in Jakarta will decline by as much as 75–77% of available supply due to economic and political uncertainties in Indonesia (cf *Jakarta Post*, 26 July 1999).

During the period from 1993 to mid-1998, the Land Development Agency has issued hundreds of housing development permits involving almost 247,000 ha of land throughout Indonesia, of which only about 120,000 ha (49%) had been acquired by developers (*Jurnal Properti*, March 1999). Meanwhile, the developers had been able to develop only 54,700 ha (46%) of the acquired land. In other words, there are almost 65,000 ha of 'idle land' — the residual acquired land minus developed land (Arcadis Euroconsult, 1999, 4.18) — in which the estimated Rp. 32 trillion (US \$32 billion) investment is idle. Moreover, Simanungkalit (*Jurnal Properti*, March 1999) esti-

mates that about 30% of that inactive investment (Rp. 22 trillion) is loans from national banks, for which the developers have to pay interest of 20% per year, that is, Rp. 4.4 trillion. In contrast to the 'idle land' defined above, there are also more than 192,000 ha of 'blight land' defined as effectively the total area of development permit minus the sites that have been developed (Arcadis Euroconsult, 1999, 4.18).

Meanwhile, hundreds of development permits involving 121,600 ha of land had been granted for residential development projects in the outskirts of Jakarta (Botabek: Bogor-Tangerang-Bekasi) during the period from 1974 to 1996 (Arcadis Euroconsult, 1999, 4.19). However, only 38% of this amount of land (46,200 ha) had been acquired by the approved developers.

As the economic crisis continues, hundred of developers of various sizes in the area have gone bankrupt, some with severe debts both to domestic and overseas banks. Meanwhile, transactions in the property sector in Jakarta Metropolitan Area are estimated to drop substantially from Rp. 2.6 trillion in 1996 to Rp. 1.7 trillion in 1997 and only Rp. 0.8 trillion in 1998 (Simanungkalit, cf. *Tempo*, 11 January 1999).

Most of the property firms and developers in Indonesia have over-invested using unhedged short-term loans for both land acquisition and building construction, with high market interest for long-term projects, including offshore loans. In fact, the foreign loans for property projects had reached US \$ 3.4 billion by December 1998 (*Properti Indonesia*, March 1999). Therefore, when the Indonesian exchange rate of Rupiah (Indonesian currency) vis-à-vis US Dollar is down by 400–500%, many developers encounter big trouble, as they could not repay the debts. Meanwhile, loans allocated for the property sector in Indonesia by December 1998 had reached Rp. 72.6 trillion out of total loans of Rp. 545.5 trillion (13.3%). Almost three-fourths of these property loans (Rp. 54.2 trillion) were non-performing loan ('kredit macet') (*Properti Indonesia*, March 1999), meaning that debtors cannot repay the loans with the interest according to the schedule. As a result, the property sector in Indonesia, notably in large cities such as Jakarta and Surabaya, is now experiencing a great turbulence, causing a high increase in unemployment in the construction sector and property-related economic sectors.

The situation in the housing market in Jakarta Metropolitan Area reflects a grand mismatch between supply and demand for housing in the past. As Heikila (1998) argues, there is a market for housing in Jakarta but it is not the one that was being built to, as many large developers have built luxury houses in the fringe areas and high-rise condominium in the city center to international standards (p.5). Meanwhile, land price has been corrected substantially. For example, land in 'Bukit Golf Pondok Indah', a luxury and exclusive residential area in the



outskirt of Jakarta, costs Rp. 15 million (US \$ 1500) per m<sup>2</sup> in 1998, but it has declined to Rp. 10 million (US \$ 1250) by early 1999 (Kontan, 15 March 1999).

Many developers in Jakarta, Bandung, and Surabaya are offering discount of up to 50% for houses they sell, in order to earn some cash income, but thus far the market has responded only sluggishly. Meanwhile, most industrial estate developers in Jakarta and Surabaya continued to hold expansion plans and concentrated on selling remaining developed industrial land because of significantly reduced demand caused by the crisis (Indonesian Property Brief, 22 February 1999). As reported:

The prolonged economic and monetary turmoil in Indonesia has forced developers to re-evaluate feasibility of proposed industrial estate expansion. The recent political and social unrest [in Indonesia] has caused investor confidence to decline further, therefore investors have postponed precommitment to purchase industrial land until stability is evident (Utomo, 1998: 14).

Simanungkalit (Jurnal Properti, March 1999) maintains that the property crisis in Indonesia has originated from three mistakes in the past. First, developers, banks, and government considered the property business from the supply side only, while the demand side has been largely neglected (see also Properti Indonesia, March 1999). In similar vein, Heikila (1998) argues:

The supply and demand sides of ...[property] market [in Jakarta] became increasingly divorced from each other as speculation in real property fuelled a building boom that was unrelated to willingness or ability to pay on the part of end users. Misguided exchange rate policies, unreliable access to relevant socio-economic data, and ineffective urban planning regimes all contributed to the separation of supply and demand consideration in local property markets (p.2).

[and]

...the entire crisis in the property sector [in Indonesia] is predicated on the harsh reality that market values for many newly developed properties are indeed substantially below the amounts invested in them. That is the crisis (p.8).

The more the developers acquire land, the more the need for long-term funds. In a situation where the interest rate is extremely high, as in Indonesia, the developers have to pay a high cost for money. Consequently, the larger the property projects, the higher the land and building price that the developers have to sell. This seems to contradict with the logic of economic scale, but it is the reality of land economy under the high rate of interest (Simanungkalit, cf. Jurnal Properti, March 1999).

Second, developers, banks and the government assumed that only large-scale subdivision projects could create efficiency in the housing business and could be profitable for the property firms. Third, they simply neglected the fact that there is a lack of long-term domestic funds for property development in Indonesia.

During 1998, re-occupation of land by residents highlighted the development of the fringe areas in several large cities in Indonesia, notably in Jakarta. The re-occupants claimed to be farmers or the real owners of the lands who had cultivated and occupied the land for years, even generations, until they were evicted in the previous years, as the land was converted into ranches, industrial areas, or large-scale subdivisions (Junaidi, 1998).

In order to utilize the 'idle land' and also to help unemployed workers in Jakarta during the crisis, the City Government has planted the land with food crops, such as corn, soybean, beans and other crops. The government has tried to develop 'urban agriculture' programs in the city, but so far without great success. In accordance with Legislation ('Peraturan Pemerintah') no. 36 issued in 1998, the government is allowed to acquire 'idle land' at the original developer's acquisition price for land banking, although it may take three years. But the problem is that there are no public funds available for this purpose at the time of crisis (Arcadis Euroconsult, 1999, 7.1)

Land development permits ('ijin lokasi') have recently been reformed through a decree of State Minister for Land Affairs issued in early 1999. Now, land acquisition for housing projects and industrial estate granted to a developer must not exceed 400 ha in one province, and a maximum of 4000 ha for the whole Indonesia, whereas that for tourist resort it is limited to 200 and 2000 ha, respectively (Properti Indonesia, March 1999). Moreover, the validity time of the permits has also been regulated: 1 yr for areas of less than 25 ha; 2 yr for those between 25 and 50 ha; and 3 yr for those over 50 ha. The permits can be renewed for a further 1 yr if the acquisition has reached more than 50%. Furthermore, land development permits are now granted by major ('Walikota') for municipalities ('Kotamadya') and head of district ('Bupati') for district ('Kabupaten'). Therefore, this regulation could actually prevent excessive land development permits granted to developers. However, under the current prolonged economic turmoil, there seem to be no developers interested in applying for land development permits. Likewise, at present no banks are interested in providing loans for land development businesses.

In short, the current economic crisis has caused large-scale subdivision projects to slow down, since developers are not able to build houses and industrial estate, mainly because of severe debts and exorbitant construction costs, while interest rates of construction loans increased significantly and consumers' purchasing power declined substantially. As a result, land conversion in the fringe areas of large cities in Indonesia has almost completely

stopped. However, unutilized land areas are now spread over the outskirts of the large cities, which is a new challenge for urban land development in Indonesia.

## Summary and conclusions

This study has discussed land conversion in the fringe areas of large cities in Indonesia during the economic boom period, from the 1980s to mid-1990s, and during the time of economic crisis, from 1997 until present, focusing on the extent of land conversion, economic factors, regulatory framework, involved actors, and socio-economic consequences of the process. The recent development of investment in housing and industrial estates has rapidly transformed the fringe areas of large cities from dominantly agricultural land into large subdivisions and industrial estates. Land conversion is a normal part of urban development, but in Indonesian cities it has largely been uncontrolled. Land development permits in the fringes of large cities, notably in Jakarta Metropolitan Area, have been used for speculative trading of land and private land banking (See also Arcadis Euroconsult, 1999, 4.20).

The government has substantially shortened and simplified the process of issuance of land development permits in order to facilitate investment development in Indonesia. However, in turn, it has put more pressure on land conversion. Meanwhile, the real-estate sector until the mid-1990s had been characterized by over-building, which is one of the most significant contributors to the financial crisis, as in Thailand (see Heikila, 1998).

Nevertheless, the current economic crisis has shaken the urban economy severely, and especially the manufacturing and property sector. The crisis has reduced the demand for land for development of industrial estates and residential areas, which in turn has resulted in the slowing down and even stopping of land conversion in the fringe areas of large cities. The property sector in Jakarta, as well as in other large cities, is now in a crisis. Meanwhile, the issuance of land development permits has been substantially reformed, limiting the extent of land development permits granted to developers, but in an economic recession, developers do not seem to be interested in requesting new land development permits.

The study concludes that the land conversion in the fringe areas of large cities in Indonesia in the 1990s has been largely due to the issuing of excessive land development permits (*ijin lokasi*) granted by the National Land Development Agency. The permit is essentially a tool for controlling urban land use, but it has been largely abused as a means to provide sizeable land for developers, many of whom actually have little capacity to develop large-scale development projects and have no intention to develop the whole permitted areas. Meanwhile, land owners seem to be powerless, as they do not have any

other options for selling their land, once a land development permit is granted to developers. Nevertheless, the economic crisis has caused land conversion in the fringe areas to slow down, but has created unutilized land (*'tanah tidur'*) in the outskirts of the large cities, in which a huge investment is idle, while developers are not able to repay loans from Indonesian or overseas banks. Some have even gone bankrupt.

Several measures need to be taken to help improve the property situation and to handle the 'problem of idle urban land' in Indonesia. First, all large-scale housing projects and industrial estates need to be evaluated by an independent auditor. Those which are found to be not feasible should have their development permit revoked. Land that has been acquired but not developed should be sold to state-owned land banking firms. Second, there is a need to restructure debts of property firms in Indonesia, which could result in payment rescheduling, new additional loans, assets conversion, and take-over. Indeed, a weak banking sector, declining purchasing power and fluctuating interest rate are challenges to recovery of the property sector in Indonesia at the end of 1990s. Third, there is also a need to examine the feasibility of foreign investment to be used for property sector recovery programs. Fourth, land acquisition policies and the urban land tax system in Indonesia need to be reformed to discourage the practice of speculative land trading which could disadvantage the public, and to let land market to function effectively.

## Acknowledgements

The author would like to thank two anonymous international referees for helpful comments on earlier draft. However, he alone is responsible for any shortcomings and mistakes in this article.

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