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Megacities, with a population greater than 10 million, can bring social and economic advantages, through economies of scale, increased job opportunities and increased interactions. However, when urban growth is rapid, overurbanisation can result and undermine the ability of governments to provide housing and basic services for the residents; this is typical of low and middle income countries. This presents residents with social, economic and environmental challenges that impact on their wellbeing. Innovative solutions to these challenges are required for megacities to achieve sustainability and maintain liveability.

Mumbai, situated at 19° 4’N, 72° 52’E on the west coast of India, 1150km SSW of New Delhi in the state of Maharashtra, (see Figure 1), is the 4th most populous city in the world. The population of Mumbai metropolitan region (MMR) is over 22 million (World Population Review, 2018) of which 12.5 million reside in Greater Mumbai at a density of about 21,000 per km² (Safe Water Network, 2016). From 2012-2016 the population of MMR rose by 2.5 million (India Population 2017, 2017). This rapid population growth is due to economic migration with more than 100 families moving to Greater Mumbai every day (Safe Water Network, 2016).

Site, Situation and Growth of Mumbai

The site and situation of Mumbai have influenced its growth and also contribute to the challenges that the megacity faces.

The original fishing village of Mumbai was located on seven low lying islands at the end of a peninsula into the Arabian Sea. In the mid-16th century, the advantages of the deep water coastal location for shipping were recognised by Portuguese traders. Under the British East India Company, the port of Mumbai grew rapidly and became the ‘Gateway to India’. Manufacturing industry (shipbuilding, cotton textiles and later chemicals and engineering products) developed around the port and attracted migrant workers from all over India.

This study considers the challenges, and potential solutions, of providing housing and basic services in Greater Mumbai. Greater Mumbai is composed of the Island City and the suburban district. In the late 1700s-1800s, land reclamation connected the seven low lying islands to form the Island City (area 24 km²). Later reclamation connected the Island City to Salsette Island and Trombay Island, which form the suburban district (see Figure 2).
Until 1950, urban growth was concentrated on the Island City but expanded into the suburban district as congestion increased. Since 1975, the city has expanded into the districts of Thane and Raigad incorporating several towns and cities in its growth. This urban agglomeration, the Mumbai Metropolitan Region (MMR), has an area of 4,355 square kilometres (Risbud, 2003).

With a shortage of affordable housing, 55% of residents occupy illegal, unplanned squatter settlements located on 12% of the city area, mainly in the suburban district (Balachandran, 2016; Risbud, 2003). This informal housing is closely integrated with workshops and consists of tightly packed small huts constructed from scrap material, often located on land unsuitable for development. The squatter settlement of Dharavi with an estimated population of 750,000 and 20,000 small scale industries (Assainar, 2014) occupies an area of 2 km$^2$ at a density 10 times the rest of the city (Fernando, 2014). See Figure 3.

Provision of services to the squatter settlements is dependent upon the legal status of the dwellings. All squatter settlements are, by definition, illegal but those existing prior to the year 2000 and located on state or city government owned land now have legal recognition. Residents of these notified squatter settlements have legal tenure and are entitled to services such as water and sanitation (Subbaraman & Murthy, 2015). However, as these settlements are unplanned and often located on land unsuitable for development, there are logistical difficulties in providing services. Many residents continue to live in conditions which negatively impact on their health and safety and, by the definition of UN-Habitat, such settlements would be classified as slums:

“...a group of individuals living under the same roof in an urban area who lack one or more of the following: 1. Durable housing of a permanent nature that protects against extreme climate conditions. 2. Sufficient living space which means not more than three people sharing the same room. 3. Easy access to safe water in sufficient amounts at an affordable price. 4. Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people. 5. Security of tenure that prevents forced evictions.” (UN-Habitat, n.d.)

In India, however, slums are defined more simply as ‘unauthorized and illegal structures where inhabitants do not have legal title to the land that they occupy’ (Zhang, 2016). These notified squatter settlement are, therefore, not recognised as slums despite the poor conditions many residents live in.

In 2012, 59% of squatter settlements in Mumbai were non-notified. The 2-3 million residents had no entitlement to services until legislation in 2014 acknowledged their universal human-right to safe, clean drinking water and sanitation (Subbaraman & Murthy, 2015). The city government must provide water to all non-notified slums, but those located on central government land are excluded. Although services must be provided they are often communal (only 5% of slum residents have individual water connections), and at a cost higher than to the rest of the city (Shyamal Sarkar, 2006). Residents of non-notified slums continue to lack security of tenure, however, and there is an expectation that they will be removed by the government. (Subbaraman & Murthy, 2015).

**Water supply in Mumbai**

Mumbai’s water supply comes from a series of lakes. This water is treated and stored in reservoirs, before being piped to the city. The brackish groundwater is often contaminated and only used when there is significant water stress in the city (Safe Water Network, 2016). Providing sufficient clean water to the residents of Greater Mumbai is a challenge due to rising demand from residents and industry, ageing infrastructure and the unplanned nature of the squatter settlements.

In Mumbai, demand for water exceeds supply and treated water is only available 2-6 hours per day. In 2011, the water deficit was 656 million litres per day and supply per capita had fallen from 5188 m$^3$/capita in 1951 to 1544 m$^3$/capita in 2011 (Terra Urban, 2012). In 2010, a severe water shortage also led the government to delay providing water connections to new building development (Chopra, 2010). Poorly maintained and ageing infrastructure also contributes to the shortage of water as pipes leak and drinking water becomes contaminated (Municipal Corporation of Greater Mumbai, n.d.). Many residents rely on private water tankers (Durham University, 2018). See Figure 4. Commercial water tanker operators have been described as a water mafia because it is believed that it is their intention to create a water shortage by taking water illegally from
formal supplies. Water theft is equivalent to one fifth of the city’s water supply (Chopra, 2010) and jeopardises water quality.

Both the rich and poor of Mumbai have difficulty accessing a regular supply of clean water but, in 2012, less than 20% of slum dwellers had access to piped drinking water (Terra Urban, 2012). In notified slums, the Stand Post Water Connection scheme allows 5-15 eligible households to apply for a communal metered water connection which, at further cost to residents, can be extended to individual houses (Terra Urban, 2012). However, as this water is only supplied for two hours per day, and at any time during the day or night, daily routines are significantly disrupted (United Nations Development Program, 2006). Slum residents requiring additional water, or with no formal water supply, can illegally tap water pipes, or buy water of unreliable quality from street vendors and other households. Two thirds of slum households rely on water from private vendors (Safe Water Network, 2016) at a cost 30-40 times greater than that supplied formally (Subbaraman & Murthy, 2015). The time taken to obtain this water is an indirect cost that particularly affects women and children (Durham University, 2018). Many residents restrict water-use to less than 20 litres per person per day, below the minimum recommended by the World Health Organisation for basic hygiene. Consequently, diarrhoea is common amongst children and infant mortality rates are 30% higher than in formal housing areas (Subbaraman & Murthy, 2015).

Achieving a 24/7 supply of clean water for all residents is difficult. Four new government funded water supply projects in the Vaitarna and Ulhas river basins will increase supply but the water deficit is still expected to increase to 1100MLD in 2021 (Safe Water Network, 2016). Those living in non-notified slums are also unlikely to benefit from these schemes. Community level solutions are being implemented to alleviate the problem for slum households in the short-term. Urban small water enterprises (USWE) are locally owned small scale water treatment centres providing 24/7 access to reliable safe drinking water at a cost lower than current supplies. Residents also save time accessing water and 5-7 jobs are created per centre (Safe Water Network, 2016 b). In Rafiq Nagar Slum, the Jal Jeevan USWE, installed in June 2015 by the NGO Apnalaya, the Rotary Club of Bombay and Eureka Forbes Institute of Environment, is operated by a self-help group of 7 women and serves 31,000 residents. Filtered water is sold in 20 litre plastic jars during standard working hours, but water is available 24 hours/day from a water ATM (Porecha, 2015).

Sewerage

The sewerage system in Mumbai is over 100 years old and serves less than 50% of the population (Municipal Corporation of Greater Mumbai, n.d.). In 2011, 40.2% of all households in Greater Mumbai relied on using public toilets and 2.2% defecated in the open; for slum households these figures were 64.1% and 3.1% respectively (Desai, 2014). Leaking sewage contaminates water pipes, pollutes waterways and causes disease. In the slums where drainage is inadequate, wastewater contaminated with excrement and toxic waste flows as an open sewer between the houses, particularly during the monsoon season (BBC News, n.d.; Desai, 2014; Surekha Sule, n.d.).

The majority of slum households rely on public toilets; these may be free to use, with users required to collect their own water, or pay to use public facilities where water is supplied. In Dharavi, it is estimated that each public toilet supports 1440 people (United Nations Development Program, 2006). These toilet blocks are generally poorly maintained, unhygienic and lacking electricity. Many women feel unsafe using the toilets, particularly at night (Risbud, 2003).

Since 1995, MCGM with the World Bank-assisted Slum Sanitation Program (SSP) has provided community toilet blocks with water and electricity to improve health and environmental conditions in the slums. Although some community groups were reluctant to pay to use the toilets, in many cases the toilet blocks have improved sanitation in the slums; from 2005-2011 the % of slum households with access to closed pipe sewerage increased from 2% to 70.7% whilst open defecation decreased from 6% of to 3.1 % (Desai, 2014). However, this solution is not an option for slums built on privately owned land, on land owned by the central government (Shyamal Sarkar, 2006), or on land located below road level (Surekha Sule, n.d.).

Solid Waste

In Greater Mumbai, nearly 95% of solid waste is disposed of at three low lying, marshy landfill sites in the northern part of Mumbai: Gorai (Borivali), Mulund and...
Deonar, one of world’s largest waste dumping sites (see Figure 5). Challenges include the amount of garbage produced (approximately 9000 tonnes per day), limited availability of landfill sites, cost of transporting the waste and difficulty accessing narrow lanes in notified slums (Davis, n.d.). Non-notified slums, have no formal waste collection and garbage is often dumped at the edge of the slum, on public spaces, and in creeks and drains. Where official collection points are provided, they often overflow with waste and block access to the community toilets (Desai, 2014). The location of squatter settlements adjacent to the waste tips is also a challenge (Davis, n.d.). In Rafiq Nagar Slum, next to Deonar landfill site, water-borne diseases are common and the infant mortality rate is 100/1000 live births/year (Porecha, 2015).

Figure 5: Deonar landfill site
(Ullah & Phadke, 2016) Creative commons

Greater community involvement in managing waste is a possible solution to these challenges. The Advanced Locality Management scheme engages residents in composting and recycling their waste, with additional advantages of introducing vermi-culture technology and providing employment (Davis, n.d.). In the slums, the MCGM programme ‘Swacha Mumbai Prabodhan Abhiyan’ (SMPA) involves NGOs and community-based organisations (CBO) in waste management. Slum residents are engaged through information, education and campaigns and the CBO, formed from 150 households, is paid a nominal amount to sweep lanes and collect garbage door-to-door; the waste is then removed by the MCGM (Desai, 2014; Risbud, 2003).

Electricity

Electricity supply in Mumbai is unreliable with power cuts occurring when demand exceeds supply; however, the existence of private power companies ensures a more reliable, albeit more expensive, supply than most cities in India.

Many slum households do not have access to electricity which negatively affects their quality of life, including their health as use of wood burning stoves produces poor indoor air quality. Many residents tap electricity illegally risking electrocution and fires. Companies wishing to supply electricity to slums face difficulties due to their non-notified status and unplanned nature. They also face an economic risk; the low, irregular income status of residents means per capita demand is low and payment of bills may be unreliable (Schaengold, 2006). In response to this challenge, the World Bank Global Partnership on Output-Based Aid (GPOBA), introduced the Improved Electricity Access to Indian Slum Dwellers project to provide a subsidised, safe and metered electricity connection to slum households (GPOBA, n.d.).

Small scale renewable energy generation using photovoltaic cells and wind turbines may offer a solution in the slums (Schaengold, 2006). Solar-powered LED lanterns are cheaper than traditional kerosene lamps, and provide better lighting and indoor air quality. In Bangalore, a private company backed by aid donors has enabled low-income households to buy solar panels for a small initial payment and then on a ‘pay as you go’ basis; this buys the panel over two years after which the electricity is free (Liu, 2013; Simpa Networks, n.d.).

Slum Housing

Government policy regarding slum housing has varied over time. In the 1950s and 1960s, slum clearance was common but relatively ineffective. With recognition that slums contributed to the provision of housing as well as to the city’s economy, a policy of slum upgrading was introduced (Zhang, 2016). This policy may also have been influenced by the growing percentage of voters living in slums. In 1985, the World Bank funded Slum Upgrading Programme provided cooperative societies of slum dwellers on state government land with leasehold tenure over the land and loans for environmental and housing improvement. Slum improvements, however, attracted more migrants to the squatter settlements and so did nothing to prevent further slum development (Zhang, 2016).

In 1996, the government Slum Rehabilitation Authority (SRA) administered a scheme of slum redevelopment for slums where residents had lived prior to January 1st 2000. Under this scheme, if 70% of the slum residents consent, the site of the slum is bought by a private developer for 25% of the market value and redeveloped into free multistorey housing for the slum residents and buildings for commercial sale; The Imperial Heights, India’s tallest twin residential building, in south Mumbai is part of such a redevelopment scheme (Balachandran, 2016). Using private developers, reduces the financial cost to the government, improves housing and services in a relatively short period of time and is free to eligible slum households. However, not all residents view this beneficially as the apartments are of relatively small size (269 square feet carpet area per household) and the quality of the buildings is variable. The redeveloped areas also have little communal open space and no opportunity for workshops that are an important form...
of employment and income for slum residents. Not all residents living in the cleared slums are eligible for rehousing and they have to move to other squatter settlements (Zhang, 2016).

**Conclusion**

Greater Mumbai currently houses two thirds of the population of MMR on one-tenth of the land area (Rediff News, 2010); as the population continues to rise, MCGM is challenged to provide sufficient housing and services, and many residents are challenged with living without these provisions. With limited government resources, NGOs, community groups and private companies are increasingly involved in finding appropriate, sustainable small-scale solutions, but this can be a more lengthy process.

Although the population of MMR is predicted to reach 33 million by 2030 (Rediff News, 2010), the population of Greater Mumbai is predicted to peak at 12,700,000 in 2021 and then decline to 10,600,000 by 2041. (Gadgil, 2016). This redistribution of population to Thane and Raigad is expected to occur as employment opportunities increase, commuting facilities improve and homes become more affordable in these regions (Gadgil, 2016); these changes will shape the future challenges of Greater Mumbai.

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**Student Activities:**

1. a) State the absolute location of Mumbai.
   b) Describe the relative location of Mumbai.

2. a) Define the term overurbanisation.
   b) Explain why overurbanisation is a challenge to governments.

3. Explain why there is a shortage of affordable housing in Greater Mumbai.

4. Outline the challenges that MCGM faces in providing services to squatter settlements.

5. Draw a mind map to identify the challenges that residents of squatter settlement face living without basic services.

6. Evaluate the following solutions to the challenge of squatter settlements:
   a) Slum clearance
   b) Upgrading slums
   c) Redevelopment of slums

   You should consider the perspectives of the government and the residents in your answer.

7. a) Describe one current solution to providing basic services to squatter settlements.
   b) Discuss the economic and social advantages and disadvantages of this solution.

8. Explain how involving community groups in finding solutions to the challenges faced by Greater Mumbai can be both beneficial and problematic.

9. Use the internet to research the living conditions in a squatter settlement such as Dharavi or Rafiq Nagar. Create an infographic or fact file to display your research results.

10. Explain why urban growth in Mumbai is a challenge to environmental sustainability.
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Cities are dynamic places. Their morphology (their functional form and character) is always changing. Two of the key drivers of these changes are the related processes of urban decay and renewal. But how do we define these processes in the contemporary urban context? In this article we examine the process of urban renewal taking place in Sydney’s Darling Harbour precinct and how traditional notions of urban decay no longer adequately account for the recent surge in demolition and redevelopment (urban renewal).

Traditionally, urban renewal (the redevelopment of an urban area) was examined in terms of a response to the process of urban decay – the process by which a previously functioning part of a city falls into disuse and disrepair. Significantly, this no longer need be the case. Increasingly, relatively new and still functional infrastructure is being torn down and the site redeveloped. Nearly the entire Darling Harbour precinct (initially redeveloped as part of the City’s Bicentennial Celebrations in 1988) has been transformed or is about to be. Sydney’s Entertainment Centre (completed in 1983 and refurbished for the Sydney Olympic Games in 2000) and the Convention and Exhibition Centres (completed in 1988) have been demolished and the sites redeveloped. The Entertainment Centre and its adjacent multi-storey car park site in Sydney’s Haymarket are being transformed into a mix-use, high-density residential and commercial precinct, named Darling Square (See Figure 1 and 2). Nearby, the Sydney Convention and Exhibition Centres have been replaced by the International Convention Centre (ICC Sydney), a new convention, exhibition and events complex (see Figures 3 and 5). The Imax Theatre has been demolished and is being replaced by a new hotel, apartments and a replacement theatre. Soon to go are the Harbourside Shopping Centre and the Cockle Bay Wharf complex (See Figure 1). These are to be replaced by large commercial and residential towers, retail outlets, restaurants, cafes and bars. Elsewhere in Sydney, the NSW State Government was planning to demolish and rebuild the Allianz Stadium at Moore Park (built in 1988) and the Olympic Stadium at Homebush (completed in 1999) until a public outcry forced a partial back down.

The driver of urban renewal in each of these instances is not urban decay as traditionally conceived but the need to maximise the economic (commercial) return for sites adjacent to Sydney’s CBD or the need to remain internationally competitive in an increasingly integrated global economy.

Figure 1 – Google Earth image of Darling Harbour, Sydney
In the case of Darling Square, the Entertainment Centre infrastructure was still functional and in a good state of repair prior to the decision to demolish the complex and transform the site into a new residential and commercial neighbourhood (see Figure 2). The availability of site was a consequence of the political decision to demolish and rebuild Darling Harbour’s entertainment and convention infrastructure. The inclusion of a large-scale entertainment venue in the new ICC complex rendered the existing Sydney Entertainment Centre obsolete. Also, there was a huge profit to be made in redeveloping a site so accessible to Sydney’s CBD.

The transformation of the area into a high-density residential precinct is also an example of urban consolidation. Urban consolidation (or densification as it is often referred to in the media) involves increasing population densities in an urban area in order to make more efficient use of existing infrastructure, and to limit the spread of urban land-uses into surrounding rural areas (urban sprawl).

The need for urban consolidation in Sydney is becoming increasingly apparent. The NSW State Government anticipates that the population of the City will increase to 8 million by the middle of this century (up from the current population of five million). The housing target for the Sydney region is an additional 664,000 dwellings. It is not feasible to accommodate this growth on the periphery of the metropolitan region. The cost of providing the necessary infrastructure would be prohibitive. Infilling is the only feasible option. Higher density living, especially in areas close to public transport nodes, is inevitable.

Darling Square provides potential residents with two of the key drivers shaping our large cities – accessibility and connectivity. Increasingly, these are seen as the most important qualities people demand in urban living. People are looking for better connections to all elements of a city – public transport, open spaces, parks, work,
Sydney’s economy is now dominated by information intensive industries. The finance and insurance sectors command a 16.2% share of Sydney’s economic output. This is forecast to increase to 21% within a decade. By 2026, just three information-service industries (finance, professional services and information media and telecommunications) will together account for more than 40 per cent of the city’s economy. Manufacturing in Sydney now accounts for only 5.7% of the city’s employment. (1)

In the period since 2008 employment growth in the corridor has been three times higher than the rest of Sydney and about 40 per cent above the national average. An additional 93,000 jobs were added to the corridor between 2008 and 2013, which equates to an average annual growth rate of 2.1 per cent. By comparison, average jobs growth in the rest of Sydney was just 0.7 per cent in that period and national employment grew by 1.3 per cent. (2) Accessibility to the CBD is increasingly important for this workforce, hence the increased demand for housing close to the city centre.

Reinforcing this trend towards higher-density living are a number of social and democratic factors including the later age of marriage (now averaging around 30 years of age), increased life expectancy (now well into the early 80s) and peoples’ changing lifestyle aspirations these have increased the demand for well located medium and high-density housing. For those in their twenties, housing close to work places and favoured entertainment precincts is increasingly popular. For those in the pre and post-retirement age group there is a movement away from low-density detached living towards medium and high density housing in those areas perceived to have a high level of liveability.

There are also economic factors at work. Sydney’s emergence as a world city with rapidly growing knowledge intensive industries had resulted in the rapid growth of employment in the city’s CBD and what is referred to as the ‘Global Sydney’ corridor. The corridor stretches from Macquarie Park in the city’s north, through North Sydney and the CBD to Sydney’s International Airport in the south.

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The new ICC facilities, completed in late 2016, are now Australia’s largest fully integrated convention, exhibition and entertainment centre. The availability of state-of-the-art convention and exhibition space is now considered a major economic asset. International convention delegates typically spend five or six times the amount of money as leisure tourists. Global and nationally significant events generate business for hotels, restaurants and retail businesses. It is estimated that the new complex generates $200 million annual economic benefit for the NSW economy.

**Harbourside Shopping Centre redevelopment**

The Harbourside Shopping Centre, located on the western side of Darling Harbour, was opened in May 1988 by Queen Elizabeth II (see Figure 10). After some initial success the complex struggled to attract the number of customers required to make it a commercial success. In an effort to revive the Centre’s fortunes the complex underwent a full refurbishment in 2005. Unfortunately, the centre still struggled to attract customers and tenants and it failed to post the financial returns expected for the land on which it stands.

Mirvac, one of Australia’s largest commercial property developers and landlords, purchased the complex for $250 million in 2013. Since acquiring the property Mirvac has sought planning approval to redevelop the site. Their initial proposal for a massive, 44-storey office tower, to be built above a new retail podium, has been abandoned in favour of a taller and thinner apartment tower (see Figure 11). The three-level retail podium on which the tower is to be built will mirror the shape of the shoreline. Mirvac’s aim, in this instance, is to maximise the economic return on its investment.

**ICC Sydney**

The decision to redevelop Sydney’s exhibition and convention infrastructure was driven by the need to remain internationally (and nationally) competitive in a highly competitive convention and exhibition industry. The existing infrastructure, while still functional, could not compete with that available in other Australian capital cities and in the region. The age and design of the complex meant that Sydney was losing market share to places such as Melbourne, Brisbane, Hong Kong and Singapore.
Figure 11: Computer generated image of the redevelopment
Harbourside Shopping Centre

**Cockle Bay Wharf redevelopment**

On the eastern side of Darling Harbour, the Cockle Bay Wharf complex (built in 1998) is slated for a billion dollar redevelopment by a consortium that includes GPT Wholesale Office Fund, Brookfield Asset Management and the AMP Capital Wholesale Office Fund.

The proposed development includes a 40-storey (235 metre) commercial office tower, a landbridge over the Western Distributor at Market St, 15,000 square metres of open space and 15,000 square metres of retail space (see Figure 13). Again, the redevelopment of the site is aimed at maximising the economic return on a site close to the heart of Sydney’s CBD.

Figure 12: The Cockle Bay Wharf complex

**Sydney’s IMAX theatre redevelopment**

Darling Harbour’s IMAX theatre (opened in 1996) has been torn down and the site redeveloped. The striking 25-storey building, known as ‘the Ribbon’, will house a hotel, serviced apartments, a new cinema and retail outlets. See Figure 13.

**Conclusion**

The nature of the urban renewal taking place in Sydney’s Darling Harbour challenges our traditional understanding of the relationship between urban decay and renewal. There is, it is argued, a need to place greater emphasis on economic drivers if we are to adequately explain the increasingly dynamic nature of Sydney’s morphology.

The principal driver of much of the urban renewal taking place in inner Sydney is the desire to maximise the economic return from a fixed input (in this instance land) and the need to remain competitive in an increasingly integrated global economy. The outcome of these processes has been the demolition and redevelopment of relatively new public and private infrastructure.

Also relevant here are the concepts of accessibility and connectivity. These, combined, with the social and demographic changes taking place in Australian society, have increased the demand for high-density, inner-city living. This, in turn, has initiated a surge of urban renewal. While some of this has been accommodated on brownfield sites in Sydney’s Central Industrial Area and on sites once housing the City’s now abandoned and obsolete port infrastructure (examples consistent with traditional notions of urban decay and renewal), significant development is occurring on sites where it is commercially viable to demolish and rebuild. Examples beyond the confines of the Darling Harbour precinct are many. The demolition and replacement of Goldfield House and the Coca Cola building at Circular Quay are examples of still functional commercial office towers being replaced by apartment towers and a hotel. The redevelopment of the AMP tower and adjacent buildings into a mixed-use development is another example.
Student Activities:

1. Define urban decay and renewal as traditionally conceived.
2. Identify any additional factors that need to be taken into account when investigating the urban renewal taking place in the Darling Harbour precinct.
3. Study Figure 1. Locate the key elements of the Darling Harbour precinct mentioned in this article.
4. Define urban consolidation. Why is it seen as inevitable in cities experiencing rapid population growth?
5. Explain the concepts of accessibility and connectivity. Why are they relevant in terms of the Darling Square development?
6. Outline the social and demographic factors, and changing lifestyle expectations, driving the shift to medium and high-density living.
7. Outline how the economic changes taking place in Sydney contribute to the trend towards medium and high-density living, especially in inner-Sydney.
8. State why it was considered necessary to redevelop Sydney’s exhibition and convention infrastructure.
9. Outline the factors driving the redevelopment of the Harbourside Shopping Centre and Cockle Bay Wharf.
10. Identify and investigate examples of urban renewal based on economic considerations rather than traditional notions of urban decay.

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