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“The Rehabilitation of the Tsunami Devastated City of Galle”
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Sri Lanka played an important role by virtue of its strategic location at the centre of the spice route between the Mediterranean and China, evidence for this comes from the hoards of Roman coins and seals, Aratine, Chinese and Persian Pottery etc, found around the island and documented in the recorded history of those countries. In the later periods the strategic location of Galle in relation to this centre gave it prominence above other ports. It was not the best of natural harbours due to the rocks at the bottom, but it afforded an inner harbour protected by a projecting peninsula on which a small Sinhalese settlement was located. Arab ships ferrying goods from east to west are known to have been frequent visitors.

Galle – the History

The earliest recorded foreign visitor was Ibn Batuta the famous Arab navigator and traveller who is reported to have landed at Galle in the year 1344 AD. In 1409, Cheng Ho, the Chinese Admiral who conducted seven exploratory and eventful voyages for his Ming emperor Yang-Ho, visited Galle on four occasions and recorded one of his visits in the form of the now famous trilingual inscription in stone. Lanka's famous trade commodities cinnamon, arecanut, pepper, elephants and precious gem stones, also attracted other interested visitors and by the fourteenth century, Galle was the island's chief port of call.

In 1505 the Portuguese discovered Galle by chance, but left after an unfortunate incident to return in 1518 when they successfully established a factory in Colombo, a location more favoured due to its proximity to Kotte, the contemporary capital of the King of Lanka.

The first Portuguese fortification in Galle was established in 1588. This fortification built on the landside consisted of a timber and mud palisade and three bastions named after Portuguese saints. There was no gate; the only entrance was via the drawbridge over a shallow moat and over the wall. At the time of the building of the fort, the Portuguese were the masters of the seas and therefore fortified only against the enemy from the land who was to remain a constant source of irritation.

In 1608, with the introduction of a new colonisation policy, the forts were expected to be more than mere military establishments. They were to be converted into fortified towns, which comprised a colonial population loyal to the Portuguese. This became necessary as a precaution against possible treachery

perpetrated by those loyal to the King of Lanka. In order to introduce a balance, Portuguese Indian colonists were imported and introduced into the fort. Within the Fort the Monastery complexes and the churches formed walled in compounds laid out in an informal manner.

Soon after the Dutch captured Galle in 1640, they set about rebuilding the Rampart and the fortifications. While the Portuguese could afford to be complacent about the seaward frontier, the Dutch could not. At the time the Indian Ocean was full of competing European nations, the British, French, Danish, Spanish and the Portuguese.

The Dutch forts were thus not mere fortifications against the enemy on the land, but also defended the harbour. By 1669, most of the town had been planned and by 1729 the massive sea defences and ramparts following the irregular coastline complete with ten bastions set out according to the fire power of the time, was complete. The gate into the fortified town was located by the harbour, while a smaller water gate, with a tunnel and a secured drop door entrance, opening into Zwarts bastion or the black fort which incorporates the Portuguese Santa Cruz fortification, gave direct access to boat traffic from the harbour. The wide gate between Moon and Star bastions was introduced by the British in 1873 to enable the larger vehicles to enter the Fort.

On the 23rd February 1796, a week after the signing of the capitulation of Colombo, the Fort of Galle was handed over to the British. The City of Galle as we know it today was developed during the British occupation of the country. This included the Dutch designed grid iron patterned centre core referred to as the "Cheena koratuwa" or Chinese Gardens, a system of home gardens laid out for the Chinese slaves, who were used and maintained by the Dutch East India Company, the Vereenidge Oost Indische Compaignie, who were housed outside the fort. The development eventually expanded to the south and east and this expansion gave rise to the town. The new town comprised of a number of colonial buildings scattered around the outskirts, built by Portuguese, and Portuguese - Sri Lankan craftsmen who worked under the Dutch during the Dutch occupation of Galle, bare testimony to the numbers who chose to live in the vicinity of Galle. The same craftsmen continued to build during the British colonial occupation, building edifices for the British and Sri Lankan neo-colonial entrepreneurial and professional classes as well.

The retired Portuguese and Dutch pilots were forced to stay on in Galle, to protect important navigational information regarding the harbour, lest they pass the information to rival nations.

Galle remained Ceylon's first port during the first eight decades of British rule reaching its zenith as an international port between 1860 -1870. However, the difficulty in accessing the harbour during the south west monsoon, the completion of the railway link to Kandy, together with the support from the

Chamber of Commerce and the now prosperous Plantation Raj that preferred the railway connection with Kandy as it was central to the whole plantation enterprise, spelt disaster for the activities of the Galle harbour. In 1875 the Prince of Wales, by laying the foundation for the Colombo breakwater effectively drove in the final nail. The railway link to Galle and the station in the centre of the town was completed in 1894 but, the effort was too late.

During its zenith, especially after the opening of the Suez Canal in 1869, the port of Galle, a convenient half way point for ships engaged in long journeys between Europe and Australia and the east, was a hive of activity with hotels, bars and shops, selling gems and jewellery and catering to the variety of visitors who called at the port.

While the larger British firms that dealt with the port and port related activities established themselves within the fort, the Sinhala businessmen who were in the import trade and the South Indian Chettiya money lenders and businessmen proceeded to develop the main street in the town. These local businessmen neither spoke English nor were they fluent in their own languages, but they possessed great business acumen. More importantly, they were honest and honourable men.

Many of the families involved in the gem trade had additional establishments in Colombo. They later expanded their businesses to Singapore, Hongkong and East Africa. By 1910 rubber and tea were grown extensively in the district and due to the reduced activity in the port and the lack of opportunities; large numbers of young people began to migrate outwards causing Galle to become increasingly dormant.

The family houses belonging to the upper classes were closed up and had absentee landlords. The migration caused by the shifting of the port had already taken its toll, many of the educated young men and women from Galle who entered government service, or the legal, medical and teaching professions, found Colombo more attractive and the development of Galle as a city had come to a stand still.

During the Portuguese and Dutch occupation, Moorish trade was kept under strict control and the Moors were not allowed to live in the Fort. However, by late 1890, the gem and jewellery trade in Galle had shifted into the hands of the Muslim community who had begun to take up residence or acquire property in the fort.

In the meantime, the fortified walls of the Colombo Fort were brought down to permit expansion of the Town. However at a meeting held in November 1889 to protest against the demolition of the walls of the Galle Fort, Dr. P.D.Anthonisz pointed out that the Galle Fort was built not only as a protection or defence against the enemy, but also as a security against the south west monsoon which

caused flooding in the lower areas of the Fort. His view was upheld and the ramparts of Galle were saved for posterity.

In 1971 the rampart walls were brought under the protection of the Archaeological Ordinance No 9 of 1940, section 33. The Archaeological Ordinance also specifically states that nothing can be built within 400m of the protected walls which included all buildings within and out. Even at the time political voices raised the need to demolish the colonial fort of Galle and use the stones to build a fisheries harbour, but common sense prevailed and the fort was saved.

In 1975, the undersigned presented a paper titled, "A solution for preserving the Medieval City Centre of Galle" and pleaded a methodology for the conservation of the entirety of the fort. By 1982, detailed concept proposals for the conservation of the Fort had been made and the decision to move the government establishments out of the Fort had been accepted. However, due to a lack of funds, it was a gradual and slow process.

In 1986, the Galle Fort, The fortified port town of Galle, 90 acres in extent, with massive rampart walls, ten bastions with pepper pot sentry points and 648 buildings all laid out within its walls, is a unique monument and remains the best preserved example of a fortified colonial town in South Asia, was nominated to the World Heritage list. This author had the privilege of preparing the documentation for the nomination.

In the mid 1990's the British expatriate community moving their funds out of Hong Kong showed a speculative interest in the dwellings in the World Heritage Fort of Galle. Leasing of property and other methods of sale were resorted to. This led to sudden increases in land values and a renewed interest in the Fort and for the colonial buildings in the hinterland.

During the course of a one and a half year window, commencing 2002, freehold purchase was permitted around the country by the Government in power, which lead to an unbelievable land speculation in the fort and in the colonial houses and property in the surrounding areas. Uncontrolled and increased illegal renovations were taking place bringing to focus that increased damage was perpetrated on the fort after it was declared a World Heritage site. This caused many to question whether the declaration had achieved what it set out to or whether the excessive publicity, appeared to attract more destruction than protection.

Galle - the City

The Municipal Council area of Galle (GMC), the capital of the southern province is located 120 kms away from Colombo. At present it covers an extent of 17.25 sq.Kms of land area, and supports a population of 94,000. It is also the Provincial and District Capital of the Southern Province. The City was declared a Municipal

Council (MC) in 1867 and an Urban Development area under section 3 of the Urban Development Authority Law No.41 of 1978 and published in the Gazette Extra Ordinary No. 38/16 dated 01.06.1979.

The GMC enjoys a 15km length of coast line which is a positive resource to the development of a tourist and fisheries based industry. It has major national educational institutions like the Karapitiya Teaching hospital and Faculty of Medicine and the Faculty of Engineering of the Ruhuna Campus. The Southern Regional Police Head quarters, the Regional Army Headquarters, the Regional Navy Headquarters and their related bases add to its importance.

Additionally, the location of the World Heritage Fortified City, the Rumasala protected herbarium and conservation forest and the mangrove conservation areas are within its boundaries, while the World Natural Heritage Cloud forest - the Sinharaja rain forest, graces its eastern boundary. Of the newer proposals underway, the development of the Galle port for break bulk and the proposed Southern Highway with its direct link to the Galle Harbour will consolidate easy access to the rest of the region.

The Indian Ocean Tsunami 26th December 2004

At 9.20am on the 26th of December 2004, under a bright blue sky, a wave generated over 1000kms away devastated Sri Lanka's coastal belt. Many from the coastal community of Bentota, Balapitiya, Ambalangoda, Hikkaduwa, Four Gravets of Galle and Habaroduwa, including foreign tourists and those from the hinterland who came into town to the Sunday market were washed away, leaving over 4331 dead bodies and more unaccounted for. Most of the destruction was over in half an hour. Of those who were buried only 1194 were identified and the unidentified included many foreigners. The unidentified were finger printed and had DNA samples extracted, following which they were buried in identifiable groupings. In addition 313 persons were injured and many lost their livelihoods.

The devastation affected every aspect of social and economic infrastructure, housing, livelihood, fisheries, tourism, transportation, health, water & sanitation, administration buildings religious and educational institutions, roads, electricity, telecommunication, business sector, etc. (table 1).

Table 1 – Breakdown of Impact of Tsunami

| | |
|---|-----------|
| Total Population of Galle | - 990,000 |
| Affected population | - 136,000 |
| No. of displaced families | - 26,278 |
| No. of displaced people (26/12/06) | - 230,000 |
| No. of people in Welfare centres at the initial stage | - 69,000 |
| No. of welfare centres at the initial stage | - 185 |
| Affected houses | - 11,461 |
| Affected schools | - 27 |
| Affected Hospitals | - 02 |

| | | |
|---|---|-----|
| Business enterprises | - | 800 |
| Tourist Guest houses, restaurants, etc. | - | 150 |
| Fishery harbours | - | 02 |
| Fishing crafts | - | 850 |

The wave that hit Galle was sufficiently high that it came over the fort wall and the water that filled the town made its way into the fort through the two entrance gates. Inside the Fort the waters destroyed the Maritime Museum and the Marine Archaeology unit that had completed a couple of seasons of extensive work, examining Dutch ship wrecks on the harbour floor. All the artefacts brought up from the sea bed were lost.

The human tragedy on the south and east of the island was enormous, but the reaction of the Sri Lankans public was incredible. Before the government could act, the ordinary people went into spontaneous action. they transported lorry loads of cooked and uncooked food, water, clothes, blankets mats for sleeping on and temporary shelters; they moved quickly often taking circuitous routes to their destinations due to the damaged road networks and destroyed bridges. This voluntary feeding and cleaning efforts went on for weeks, providing time for the official engines to start up.

The temples, churches, and mosques opened their doors to those who suffered regardless of class or creed, all had suffered equally at the hands of the Tsunami and they had to be helped. As a result of the immediate care provided by the public at large, the much feared after effects of such calamities, such as water borne diseases, were curbed and preventing further loss of lives. By the end of the first week, the Indian Navy, the American Marines and the Belgian Army had joined in.

The destruction was enormous and parts of the Galle town needed to be rebuilt. On the 21st of February 2005, we were invited by the Hon President of Sri Lanka to help. The expertise we provide was and remains totally voluntary.

Land Use

The Southern Regional Physical Plan prepared by the National Physical Planning Department (NPPD) has identified Galle city as a second order urban centre, with the potential to develop significantly once the connection between the harbour and southern expressway is completed.

The population census (2001) records a growth rate of 0.9% per annum caused mainly by migration inwards from within the region, leading to an increase in net population density from 44 persons per hectare in 1981 to 52 persons in 2001. It was noted that while in some areas the infrastructure facilities were uniformly distributed throughout the city, in others particularly those with a higher population concentration, they were inadequate.

The census on housing records a gradual increase in building stock, 10,954 in 1981, 13,407 in 1991, 15,249 in 1999 and 17,749 in 2001. Interestingly 23% of these houses are considered temporary or semi permanent, of which unauthorised structures along the sea front, railway reservation, marshland and canal reservations amount to 8% of the housing stock. Most of the temporary, unauthorised structures were destroyed by the Tsunami. In the GMC area the predominant land use activity is residential, comprising of about 52%, with the greatest population concentration in the fort. Commercial activity is greatest around the railway station and bus terminal and accounts for approximately 2.27% of land use. The informal sector which provides livelihoods to the low income groups, actively contributes to the economic activity creating a vibrant town centre. The haphazard development of the access ways has led to severe traffic congestion.

The lack of proper parking facilities is observed in the inefficient functioning of the town and may have additionally discouraged any investments. While sub-commercial centres have naturally developed in Katugoda, Karapitiya, Thanipolgaha and Gintota, the unplanned development taking place has to be addressed and arrested, and an urban plan introduced early to ensure an efficient functioning in the future.

Industrial activity made up of medium scale handloom industries, fibre mills, (Galle is famous for the fibre industry and exported large quantities even during the colonial periods) timber mills, garment factories, oil mills, and the only large scale industry the Ruhuna Cement Factory located in the town account for 1.29% of land use. The locations of some of the industries encourage the work force to settle outside the town.

The predominant wealth generating land use activity in Galle is agriculture which is made up of paddy, coconut, rubber, tea and cinnamon plantations accounts for about 29.61% of land use, most of the products are exported to international markets through Colombo without any further addition to their value.

The unplanned haphazard development of the Tourism industry leading to ad hoc and unrelated development has stemmed and hindered the harnessing of the real Tourism potential of Galle. Further tourist resorts like Hikkaduwa to the North and Unawatuna to the South demand service inputs from Galle. The 59 hectares of internal water resources which can be used for tourism based activities remain untapped. Tourism accounts for only 0.58% of land use.

The arbitrary distribution of Administration activities in insufficient concentrations to adequately serve its citizens is a great inconvenience. The subsequent traffic congestion together with the high cost of travel increases the economic and social burden on the city. The road network accounting for 14.25% of land use is insufficiently distributed, making travel tedious.

It is noted that more appropriate land use options are possible to create a more efficient and exciting Galle. The Tsunami has created a window of opportunity to examine the existing uses and propose more suitable avenues, for Galle to develop as the Cultural Centre for the Southern Region.

Physical Infrastructure

The GMC receives its water from the National Water Supply and Drainage Board (NWS&DB) utilizing the Gin Ganga intake and the Wakwella water treatment plant. A survey conducted in 2001 identified water consumption as being 90% for Residential, (99% of the households are served by pipe borne water), 7% for Commercial and Government Institutions and 0.3% as others. However, though the total demand is 6 million gallons, only 4 million is available for daily use, leading to a shortage during certain times of the day. Ground water quality does not conform to the relevant Sri Lanka standards due to the excess of iron and fluoride in the substrate.

An electricity supply utilizing 17 power stations and 97 sub-stations and transformers maintained by the Ceylon Electricity Board supplies the required power to the GMC. At present the supply is adequate, however, with the envisaged development potential, the generation would have to be increased. The development of renewable fuel sources like Dendro power, may have to be investigated.

Telecommunication records show 8843 operational land lines with 2778 in the waiting list and an extra 26,000 cellular phones in operation. The cellular phone operators with their towers and other directional antennae are great visual polluters. Their operations should be curtailed until more efficient and visually acceptable systems are made available. Meanwhile, more efficient technology available internationally should be examined and brought into use.

As no extensive studies have been conducted on the movement of the massive quantities of water flowing from the highlands outside the District, through the low lying marsh-lands to the sea, Galle continues to flood during heavy rains. A careful study would identify critical protective and non development zones and curtail land speculation, irresponsible dumping of garbage and debris, unplanned reclamation of low lands adjacent to the waterways and unauthorised construction on the canal banks and rivers. The topography of the flat terrain landscape where the whole storm water drainage system is below the Mean Sea Level (MSL) encourages flash floods during the rainy seasons. A solution utilising pumps or wind mills may have to be resorted to, to ensure a safe passage for this over flow.

The GMC though highly urbanised, does not have a centralised sewerage system and the collection and disposal of solid waste is inefficient and inadequate. The 16,924 households and the markets, restaurants and food centres, industries, hospitals, road sweepings and public litter within GMC,

generates a large amount of waste amounting to over 45 tons of garbage per day, made up of 83.43% organic, 3.7% paper, 0.27% glass, 6.4% polythene / plastic and 1.6% others (household debris).

As the disposal of solid waste in many marsh-lands, is not based on a scientifically established land fill or on a proper recycling of the discharge. The overall effect is unsanitary and has become the foraging grounds for feral animals and birds. The frequent occurrence of blocking of waterways and drains with debris especially polythene, accentuates the already difficult situation during periods of flooding.

The use of personalised disposal systems for the conversion of organic garbage into compost has met with success and a scheme to provide, a pre-cast concrete recycling bin to convert garbage into compost, to every house being constructed under the Tsunami rebuilding programme is underway.

As there is no centralised sewerage system in the town, all residential properties are presently served by individual septic tanks. The efficient running of the system is at times hindered by the high water table in the low lying areas.

Social Infrastructure

Galle is the main education centre for the Southern Province with 41,627 school children, including 50% from the areas outside the GMC being served by 32 schools including 8 National schools. Many of the schools are over crowded. In some schools the student to floor area ratio is as low as 2:1 compared to the national standard of 10 Sq.M per student. Many schools lack facilities like proper playgrounds, science labs the sanitary facilities are grossly inadequate. In addition to the Government schools, higher education institutions such as, Technical Colleges, the Faculties of Medicine and Engineering of the University of Ruhuna and the Open University of Moratuwa service the city.

Galle is served by good medical facilities.

Environmentally Sensitive areas

The Beckke reservoir set in a natural forest situated off Wakwella Road was the only source of pipe borne water till the new reservoir was constructed. The natural forest reservation protecting the Beckke reservoir should be declared a conservation forest reservation. Similarly the unique mangrove forest at Daweta adjacent to the cement factory should be declared a protected conservation area and the cement factory should be instructed to stop polluting the marsh or relocate.

The GMC area has a number of canals, rivers and a lake of which only one canal the Moda Ela, has its reservation declared. This lack of interest on the part of the authorities to protect these unique resources has encouraged and permitted unauthorised encroachment to take place. All canals, rivers, lakes, reservoirs etc should have specifically declared reservations and adequate legislation should

be established to conserve and protect them. The banks of these waterways should be forested to reduce evaporation and protect them from erosion and subsequent eutrophication of the water body. The canals should be regularly cleaned, kept free from polluting affluent discharge and the sea outlets maintained. However in the future, the proper functioning of the canal system will depend heavily on research into rain water discharge and its movement through the district of Galle.

The sustainable utilisation of natural and man made resources while conserving and responsibly protecting it for future generations and generations unborn should be the guiding principle for all activities. It would be important to develop infrastructure to provide access, however, the road widths, etc should not be standard in all areas. Roads into sensitive areas should be kept narrow to control public access that would threaten the carrying capacity of such areas. It should be noted that if the carrying capacity is not carefully controlled the areas could potentially be destroyed forever.

The protective environmental principles to be followed for Pinnaduwa, Labuduwa, Karapitiya, Hapugala, Gintota and the Galle town have been laid out as follows: all forest reserves and conservation marshes should be protected and conserved. The filling of low lying lands should be undertaken only after proper drainage studies have been carried out, The development areas should be provided with wide canals for rain water disposal. The creation of green belts as buffers between development centres and the surrounding landscape should be encouraged and once established they should be protected by the introduction of suitable legislation.

Industries

Many of the industries have been developed in a haphazard manner without adequate infrastructure. This remains a hindrance to expansion. The reorganisation and relocation of industries should be carried out to ensure better environmental controls. All industries should be located in designed and designated industrial zones. This would facilitate the provision of the suitable infrastructure and plant and machinery for the generation of electricity, sewage, garbage and sensitive material disposal.

It is also an opportunity for fishing to be recognised as an industry. The promotion of a modernised deep sea fishery with multi day boats, strategically located harbours, ice plants, proper storage for nets, etc. should be developed. However such activities should be well researched to prevent the occurrence of over fishing.

Considering the damage caused to the environment by prawn farming this industry should be discouraged. However, since there are a number of water bodies in and around Galle, the development of the inland fisheries sector is a viable option.

No paddy or productive agricultural land should be alienated, instead the growing of alternate cash crops during the non-cultivation seasons may be considered to keep the fields to remain economically viable.

The Urban Plan for the rehabilitation of Galle

The preparation of an Urban Plan could have numerous approaches, however, due to the urgent need for immediate action, we decided to go for a project related urban plan. Quick action plans instils confidence in the people and indicates that their needs are being considered. This was also an opportunity to address issues that should have been addressed previously but had been held back for political expediency.

Sri Lanka had already lost 10m of its coastline through erosion in the last 50 years, and the Tsunami has eroded a further 2m. In areas where coral reef degradation was serious, the effect of the waves was increased. Coastal areas protected by sand dunes and beach vegetation were able to withstand the force and suffered less damage. Most of the houses located between the coast and the main road along the affected coasts were destroyed. While in some areas the sea penetrated 2kms inland, in others it was much less. In an effort to avoid future calamities the Government followed what India had done 20 years ago when it applied the 500m set back from the sea. The Government of Sri Lanka applied a 100m reservation or no build zone for housing and new buildings, which did not apply to hotels that had withstood the onslaught. While many of the older buildings were spared or had less damage, the badly constructed and more temporary buildings suffered the most. No new buildings were to be allowed in the reservation.

There were many politically motivated protests against the 100m rule. A recent amendment saw relaxation in a few areas where raised land or rock outcrops existed in close proximity to the coast. In other areas the 100m reservation is in force. The ownership of the lands within the reservation will remain with the original owners, but they will be converted into forested beach parks and the road along the coast a scenic highway with a bicycle path through the park. Unfortunately, some of the land owned by the recent foreign entries into the land speculation market is fortified with even higher walls, thus putting severe restrictions on the concept of a bicycle path around the island.

The concept for the Urban Plan studied the natural and man made resources in Galle and its immediate environment, the scenic beauty, the natural forest reserves, the mangrove swamps, the numerous temples along the coast, the beaches, the two World Heritage sites, a river trace for a backwater boat ride from the Bentota Tourist Resort to Galle, a distance of 62 Kms, and concluded that Galle should be developed as the future Cultural and Tourist Capital for the Southern Province.

The Urban Plan for Galle will not envisage rebuilding the city in another location as was once suggested, instead, it examines the possibility of expanding the city to enhance existing activities while adding that which is missing and maintaining and protecting the character of the old city. This would envisage and require the shifting or re-orientating of some of the incongruous activities like the bus stand etc, which today has converted the whole city into an ugly bus stop.

Galle is a Bus Stand - this must change

Anyone coming into Galle will be disappointed by what they see. Buses parked all over, some standing still for periods in excess of four to five hours question the very economics in running a bus. But this may be said mostly of the private buses that litter the roads. In an attempt to change this image of Galle it is proposed, that integrated bus and train terminals be located at the two ends of the town with all facilities, to permit easy access and movement, being located between the two. Buses coming into the town will pick up or drop passengers and leave, but will not be permitted to park. The existing bus stand will be demolished and this area would be converted to a town square with a small bus stop, under an area landscaped with trees creating shade and a friendly human environment.

The Cheena Koratuwa

One of the oldest urban areas in the town will be declared a conservation area. The small buildings converted to dwelling places, restaurants, etc. The proposed Performing Arts Centre and Theatre Gallery a much needed facility in Galle, will be located on land adjacent to the oldest photographic studio in the town. The photographic studio will be preserved and together with the photographic exhibition of old Galle will remain the focal point in the Gallery.

Railway Museum

At present the railway network has a strange working arrangement where only two trains terminate their journeys in Galle, while eight more come into Galle only to reverse all the way to Matara which is located further down the line. It is proposed that the trains coming to Galle continue to do so while those going on to Matara will use the new railway bypass and continue without reversing, there by activating and utilising the lesser used stations located before and after the main Galle station. It is proposed that the extra space available in the Galle station be converted for use as the National Railway Museum. The museum will preserve one example of every piece of rolling stock imported to the island starting from the British Colonial Period. While the railway station and the trains coming direct to Galle would continue to operate and accept commuters, the main function would be superseded by the proposed combined rail and bus terminals being introduced at the two extremities of the town.

Colonial Prison Hotel & Silver Market

The British built prison has some fine buildings that should be preserved. New uses would be required once the prison activities are shifted to the Walahanduwa

area. The present prison complex is designed as two courts. It is proposed that the entrance fore court is converted into an open silver market to show case the silver jewellery manufactured in Galle, particularly for the export market. This area would also accommodate the silver and jewellery shops destroyed along the Colombo – Galle road and help them to re-establish in new premises, from which to sell their products. Being located within the walls of the old prison and requiring entry through the main gate would add to the celebration and project an image of security as the visitor penetrates further into the hotel located in the inner court.

The Colonial Prison Hotel located in the inner court would offer the discerning visitor a new and exclusive experience of being a star class prisoner, the ability to sleep in the converted luxury prison cell, eat in the prison dining hall with staff appropriately attired in prison garb and shop for exquisite silver jewellery at leisure.

City Hotel & Conference Centre

Galle has no City hotel and all official functions engage facilities available outside. This inconvenience would be met by the proposed City Hotel and Conference Centre. The site occupied by the Police Station, Police Headquarters and barrack buildings is located on a very prominent and prime city site. With the shifting of the Police headquarters to a more appropriate location, it is proposed that this site is re-designated for the development of a City Hotel and Conference Centre. The complex will be low rise (a maximum of four floors in height to avoid visual competition with the fort) and consist of a Hotel, Conference Centre and an arcaded shopping complex facing the road that encircles it.

Pettigalawatte shop houses

Many business premises located between the Galle / Matara road and the Marine drive were lost. The shop house complex is designed to provide arcaded shopping while providing staff or owner accommodation to a section of the building establishments that were destroyed. The main access to the complex is via a road created along the canal at the rear. Access from the Matara – Galle road will be restricted. A fish and vegetable market and spaces for informal shopping are included. This project commenced in June-July 2005 and is about 80% complete.

Beach Park – and Landscaped Esplanade

The archaeological ordinance does not permit any building activity within 400m of the protected wall of the fort. All building activities involving the cricket stadium have no official approval. Under the circumstances, as it is not possible to develop a proper stadium it is proposed that the cricket stadium is moved elsewhere and the esplanade given back to the people of Galle who badly need the Urban space. With cricket being played at an international level, the ground has been totally alienated from the people of Galle, selfishly fenced up and no other activity is permitted within the grounds even during its dormant periods.

Previously during its use as an esplanade, football was the most popular sport in Galle. Today, the youth deprived of access to the grounds to play football have turned to drugs. It is proposed that the grounds be landscaped and given back to the people of Galle. Cricket will continue to be played but with spectators seated under temporary tents as was the case in the past, prior to the Internationalisation of the game. During other times the grounds will revert back to the people who will use it for recreation. Parts of the grounds would be extensively landscaped using trees compatible with the environment.

Traditionally, the Fort was separated from the hinterland by a moat. In the 19th Century the moat was filled in, to create an open space for the town. It is proposed that this isolation is visually recreated by the judicious use of planting material compatible with the sea coast and an enhanced concept of the beach park. A remembrance monument to the Tsunami will be located in the park. All kiosks catering to the public will be housed in temporary structures to permit regular change.

Regional Sports Complex at Mattegoda

A new Regional Sports Complex, consisting of facilities for cricket, football, athletics, swimming and indoor sports hall, with shared common facilities including hostels, gym, parking and sports museum which is accessible to all is proposed at Mattegoda, a large 700 hectare disused paddy land adjacent to the Koggala lake and air field. There is sufficient land for expansion. The project area is adjacent to the road which has direct and easy connection to the southern highway via the Agunugaha node.

A suggestion was made by the UDA, to develop the marsh land in Dadalle into a cricket stadium. This ground is a functioning marsh, into which streams from further inland discharge. The sea outlet has been blocked restricting and preventing the out flow of this water. The land should be converted back into a marsh land and the sea outlet retraced and made to function. This land should not be developed as a Cricket Stadium.

Rumassala Conservation Forest & Unawatuna Tourist Resort

Rumassala, a raised promontory that sticks into the sea is known to harbour some rare plants. The growth of many of these plant species is restricted to this forest. The environment is unique and as such the forest is under protection. It is proposed that the laws are strengthened and it be declared a no-development, conservation zone. Rumassala with its coral reef is also a marine sanctuary.

Unawatuna, the bay immediately south of the Rumassala hill is picturesque, and for many years was a safe sea bathing spot for the people of Galle and visitors alike. The main road to the south passes through the village and as a result about 20 years ago the bay was discovered by the Tourism trade. This gave way to an unplanned and unmanaged development and as such a myriad of small

guest houses dotted the strip of land along the bay. The edge of the bay and most of the beach was a ribbon of development till the Tsunami struck. Most of the facilities were destroyed, however supported by private interested parties, much of the pervious haphazard and unplanned development has been rebuilt.

In an attempt to add some element of a plan we proposed that the main road that bisects the village of Unawatuna be diverted via a by-pass that runs parallel to the existing railway line. This would then free the village of the heavy traffic that races through and hinders its development. The narrow strip of tourist activity could now be expanded inland from the beach and life would then be less tense. The road now entering Unawatuna would only serve the resort; it becomes special, and may even encourage a celebration, byway of an entrance gate.

Due to the lack of planning, the roads within the resort area are very narrow and the traffic should be curtailed. It is proposed that the unused quarry at the entrance be converted into a car park and the location for the proposed performing arts centre, the folk theatre, community centre and hall, crafts village, restaurants, etc. those arriving at the resort will park their vehicles and either walk, take a bicycle ride or a three wheeler (tuk tuk) which may be decked in the special Unawatuna colours. The introduction of these facilities would permit those in the village who do not have access to beach properties to also participate, in the development and benefits of the resort. The building of large hotels would not be allowed and the maximum size of a Hotel would be limited to 10-15 rooms.

If these additional elements could be implemented, Unawatuna could still develop as a good integrated resort, with a safe environment free of fast moving traffic.

New Medical and Teaching Facilities

Today most equipment used in hospitals are electronic and due to the difficulty of operating them at a close proximity to the sea the systematic shift of the National hospitals to sites further inland commenced over 20 years ago. The last of the hospitals to be physically moved out, the maternity wards and the Nurses Training Colleges were affected by the Tsunami. Chancellor Helmut Kohl of Germany was at Unawatuna when the Tsunami struck and was saved. On his return to Germany, he offered the City of Galle, a brand new 500 bed maternity hospital and children's ICU, which would be constructed in close proximity to the relocated National hospital complex. The Nurses Training College will soon become a faculty, has been allocated land in close proximity.

Sports Complex for the School Children of Galle

Following the moving of the hospital, the site at Maha Modara will be developed as a sports complex for the Children of Galle consisting of a 400m athletic track, a full football field and a 50m swimming pool. This facility will fill a great void and is eagerly awaited.

An Academic corridor connecting Karapitiya, Hapugala and Gintota

With the Faculty of Medicine and other facilities including the teaching hospitals located at Karapitiya and the proposed IT & Incubator facilities at Hapugala a long felt need is a properly equipped Faculty of Ocean Sciences, which will teach courses in Marine Biology, Oceanography, fisheries, Tsunami monitoring, etc. This would be ideally and easily located at Gintota in a special building that spans across the Ginganga like a bridge. This will permit access into the river, the sea and the port for special research and study. Existing roads connect the three locations will form an academic corridor of excellence.

International Yacht Marina

While the Galle harbour is not sufficiently deep to accommodate the larger container vessels, its future is seen in the handling of break bulk and as an International Yacht Marina, with better and more efficient facilities for handling and repairs. Even today, Galle is a popular haul out point for yachts on round the world voyages. Enhanced handling facilities will increase its popularity and hopefully one day, see Galle host the tall ships on their annual voyages.

A Car Park – between Marine Drive and the Galle Matara Road

The dwellings and business premises located between Marine Drive and the Galle-Matara Road facing the harbour, incurred the most damage during the Tsunami. Those who watched the Tsunami wave approaching the town had tried desperately to leave in their vehicles but the narrow streets prevented any escape and all perished. Many fine and important buildings like the fish market and many along the harbour front were destroyed. Where possible the partially damaged buildings will be conserved and the rest of the area cleared and included into the beach park to serve as a car park for the town. Parking will be in the shade under a forest of trees. Today the business community welcomes the creation of a shaded car park.

Galle Green Market & Fruit Market

While the fruit market (1880) needs minor rehabilitation, the Green or vegetable market at Oruppuwatta built a decade earlier in 1869 requires substantial attention. The design is extremely sensible in that it creates an internal street through the vegetable market. With the rehabilitation of the vegetable market it is further proposed that a similar design concept is extended further to create an internal street with a fish and meat market. Adequate parking with a space for the creation of an informal market place is also envisaged.

The Boundaries of the World Heritage site

The declared boundary of the World Heritage site, remains the Aloysius Hill to the North, the buildings to the landside of the Colombo Matara road to the east, and crest and seaward slope of Rumassala hill to the south, and includes the harbour, the Fort and the Municipal Council area and including the old rest house on the hill by the sea.

The Fortified City of Galle

The Special Regulations created for the Galle Fort Heritage area attempts to re-enforce a conservation / development plan for the World Heritage City of Galle, to protect, conserve and maintain the historic building fabric and the monuments within the conservation area. It would guide all development including the provision of infrastructure, new construction work, restoration work, renovations, or replacements of any building element or any type of excavation and address the issues such as demolition of the archaeological monument, unauthorised constructions, change of use, traffic problems and vehicle parking. These regulations drafted over one and a half decades ago would have made life easy for the implementing agencies, have still not been gazetted and formalised by the Urban Development Authority.

Change of use and Rehabilitation Projects within the Fort

The details of the development proposals for the Galle Fort, were suggested and approved in 1982, unfortunately the lack of funds and at times misinformed political will stood in the way of the project achieving fruition.

The shifting of the Government Administration Agencies from within the environs of the fort has taken time; it was a slow process, however today the end is in sight. With the shifting of the Government Agencies, new uses in keeping with the overall concept have been allocated for the building stock.

The Rampart Wall

The Rampart walls are the most visual part of the monument and the Department of Archaeology has over the years used its meagre budget to protect and conserve them. They should be thanked for their effort. A unique feature of this fortress wall is that many parts carry evidence of a complete range of colonial fortifications, Portuguese, Dutch, British and even Second World War pill boxes. Most of the pointing of the wall is complete. However, some damage to the wall due to the Tsunami and a breach made in the wall during the British bombardment of the Fort need to be repaired.

VOC Warehouse – Maritime Museum and Interpretation Centre

An early attempt to collect the 64 different crafts used in the island's waters was unsuccessful. These crafts are unique in that the designs varied from shallow water craft through to sea going craft and craft for heavy transport to sea-going ships. All the boats had out-riggers and many possessed sails. The 1982 attempt failed and the Tsunami may have eliminated a large number, as evidenced by the second generation fibre glass boats being distributed to the fishing community. What ever is left should be salvaged before they end up as garbage.

Period Post Office

Over a period of time the building presently used as a Post Office has gone through many changes. The central courtyard was enclosed to create a new

letter sorting office, etc. The conservation proposal would establish a period Post Office, where a special frank would recognise letters posted from within the World Heritage City. The original verandah and central courtyard would re-establish the scale of rear veranda. The original carriage entrance located to the right of the buildings as it faces the road would be used to access the other rooms for Galle Heritage Trust and restaurant serving Colonial Dutch delicacies. The courtyard orientated to the sea and the west would afford visitors excellent views of the sun setting over the ramparts of the Galle Fort.

Governor's House as the new President's House

In 1878, when Governor William Gregory sold Queen's house to buy Queen's cottage in Nuwara Eliya, he further consolidated the shifting of the harbour activities from Galle to Colombo. It is proposed that Queen's house reverts back to President's house. The regular presence of the first citizen in the fort would enhance its prestige.

Fort Market Square & Shopping Arcade

One of the most important spaces within the fort is the market square. The square is so located to enable easy access to the water gate and the harbour and in the colonial period would have been a hive of activity. Even today, it is active especially in the morning when the court house is in session. The court house like the other government buildings is scheduled to be relocated outside. The square will then revert back to its original function as a market square. The restored buildings that surround it would be converted to restaurants and shops selling goods and handicrafts manufactured in Galle and some engaged in the manufacture of reproduction antique furniture. Thus the square would be returned its glory as a hive of activity.

Court house converted to a Boutique Hotel

The two storey courthouse building located on the southern end of the market square and facing the sea, has the potential of being converted into a boutique hotel, with dining and other public areas located on the ground floor with the bedrooms on the upper floor facing the harbour. Being the finest building on the square it could additionally act as the back drop, for future cultural performances in the square.

Speciality Restaurant in the cells and on the upper terrace of the water gate of Zwarts Bastian

The barrel vaulted cells used to incarcerate errant sea men stand tall on the water gate terrace. The building used by the Superintendent of Police will serve as the main speciality restaurant while the individual cells would permit a more intimate dining experience served under candle light, while the old graffiti on the walls would make interesting reading.

The Kachcheri building as a living Cultural Centre, exhibition and show case for Galle

The shifting of the District Secretary's office to a new complex outside the walls, freed the main administrative building for alternate use. Galle needs a Cultural and Information Centre. A Centre that will showcase the cultural rituals and dance performances of the district, a living exhibition and sales point for its crafts and lace making skills. It is also proposed that a school that teaches interested persons the dance and craft skills be also incorporated within. The main focus would be the teaching and dissemination of information.

National Institute of Marine Archaeology, Laboratory and Workshop

The Marine Archaeology unit lost all its equipment and collection of artefacts in the recent Tsunami and even though new premises had been recommended they have still not occupied it. The proposed building is large, has sufficient space, ample road frontage and residential accommodation. With the shift to the new building, the UNESCO proposal for the creation of a Regional Marine Archaeology Institute in Galle may see the light of day.

Parking within the Fort.

The roads within the fort were never designed for motor vehicles. Buses and Lorries driving into the Fort have damaged the edges of the arches. To avoid any further damage the entry of heavy vehicles in excess of 5 tons into the Fort would not be permitted. The vehicles would be provided parking along the harbour road which would be cleared of all buildings and appropriately landscaped. The use of a horse and trap or bullock cart as an alternate mode of transport within the Fort has been suggested.

The parking of vehicles on the roads within the Fort should be discouraged as it causes and encourages congestion. It is proposed that instead, a series of centralised parking facilities located at strategic points be created using the vacant blocks within the Fort. These lands would be walled in and secured and access would be through an arched entrance that faces the road.

Open Spaces, Landscaping and Roads

A major feature of the Fort is the visual expanse of space immediately behind the rampart wall. This environment should be maintained at all cost. All open areas within will be maintained for the enjoyment of all and no structures temporary of otherwise will be allowed. All landscaping will be implemented on a staged basis, after considering surface drainage. Suriya and white Araliya are recommended tree species. All roads would be examined to establish the original surface material. The road system would not be expanded but maintained at the present level.

Conclusion

Ironically, the Tsunami has created a window of opportunity to re-examine the real contribution Galle offers for a future role as the cultural and tourism centre of the south. The journey should be carefully orchestrated to ensure that the unique character is maintained and the environment protected and conserved. No arbitrary filling of the marsh lands should take place without careful study of the natural drainage of water through the district

The development process would be long, and great political discipline is required. Galle will remain attractive and economically viable only if the fragile environment is enhanced, protected and conserved. Finally, the people of Galle should whole heartedly accept the proposals being made and carry it to fruition. It is after all their city. Finally, the people of Galle should be afforded the opportunity to examine and understand the proposals being made and encouraged to accept them while helping to carry them to fruition.

Thank you.