Impact of Land Issues on Nature In Sri Lanka

(They burned our Lands, They Burned our dreams)



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Issues and Problems arising due to improper land use and land management

1. Introduction

I think "Land is foundation of all organisms in the world" (Raveendra Kariyawasam)

"Land grabbing, Land erosion, Land Privatization and land contaminations are major issues in Sri Lanka. This Report explains that kind of land issues in Sri Lanka. The leaders of a country are trustees who are called upon to nurture and protect its resources. They cannot dole it out to another country at any cost."

The purpose of this research is to throw light on problems and issues emerging due to unplanned development activities implemented in haphazard manner, damaging environment, especially land resources including forests. Forest is a resource of utmost importance serving a large number of ecosystem functions to maintain nature. The case studies in this chapter bear evidence to the fact that forest resources are ravaged, with the support of influential politicians for individual benefits. This has created problems such as water resource depletion, loss of biodiversity, loss of livelihoods and income for people human elephant conflicts and landslides. Also some development interventions like water resources development without due regard for the environment are observed to have their negative effects and impacts. The case studies cited here on landslide in Miriyabadda and Mini hydro power projects throw light on this aspect.

Discussions in this chapter highlight that there are legal provisions for protection of forests and other natural resources, but law enforcing authorities are lethargic or fail to bring the offenders before law, mainly due to the influence of politicians. At the same time, it is pertinent to elaborate on environmental impact assessments on projects can arrest the harmful effects and impacts of development projects, if such studies are properly conducted. However, in many cases, the independent consultancy firms appointed work for their personal gains and help approve the project for the satisfaction of the client or the organizations associated with development work concerned. This is a major concern with regard to planning and implementing development projects considering environmental implications.

2 Land grabbing by the Army

There is ample evidence from the northern and eastern provinces of the country on large scale land grabbing by the armed forces of Sri Lanka. As highlighted by Professor N.Shanmugaratnam with regard to land grabbing by the army in northern and eastern provinces "Land remains a major bone of contention in the resolution of the national question (NQ) as it is not only a vital means of livelihood for the vast majority of the people but also the contested material base with intangible symbolic value for territoriality and identity construction. The protracted war has generated new grievances and conflicts related to land and coastal zone resources in the North and East (NE), which have added to the complexity of the NQ through feedback effects. Indeed, consequences have entered the causal chain of the conflict. And today, while the NQ remains unresolved, certain trends in post-war development in the NE have raised concerns about land grabbing and enclosures, and their consequences for people's livelihoods and well-being". This case study undertaken by us further substantiates ruthless land grabbing by the forces.

2.1 Land grabbing by the Security forces in the Eastern Province –

In this case, land area of 1220 acres comprising of old settlements and forest reservations in the eastern province owned and used by the Sinhalese, Tamils and aboriginal Vedda villagers have been forcefully acquired by the Air Force and the Navy. This land grabbing activity started on 17.06.2010 with the entry of a group armed with T-56 guns. They assaulted the villagers and made them to run for their lives. It still continues creating immense hardships to the communities depriving them of their agriculture based and non-timber forest product collection activities which are the main livelihoods of these people.

Places of historical, archeological and religious significance arealso located within the area comprising of 1220 acres now in the hands of the security forces. They include Ulpassa Samudra Naga Royal temple, Ragamawela Sri Walukaramaya, WeheragamaWeheragala Royal temple in Panama, all in Panama and historical places like Kinnaragala. Out of them, UlpassaSamudra Naga Royal temple is said to be donated to the monks who had attained *arahatship* by a provincial king named Mahadadika Mahanaga. A significant number of archeological ruins such as dagabas, ponds made of stones etc are found in this place. At present, the Navy has banned people entering this temple area which is considered by them as a religious place of significance.

Situation in other temples mentioned here is similar to that in Ulpassa Samudra Naga Royal temple. Ragamwela temple which had been built in 1960s was destroyed by the Tamil tigers during the conflict period and was given back to the monks after the war ended. However, temple was attacked by unidentified gunmen after whom the Police took over it. By 23.08.2013, Air Force forcefully took over the temple and the land belonging to it.

Now the security forces are forcing the Chief Priest of Wellassa Digamadulla, Honorable Panama Sri Chandararatanabidana (M.A) Thero not to claim ownership to the temple land. Temple land as well as the land in Ragamwela used previously by villagers for chena cultivation is now in the custody of the Air Force. The villagers are not allowed to enter these areas for chena cultivation or for any other purpose. The villagers believe that these lands

have been taken over by the security forces on government initiation to be sold to foreign companies and businessmen in tourist industry.

Out of the 1220 acres of land gabbed in this way imposing threats on the environment and livelihoods of people, 835 acres are forest lands owned and managed by the Department of Forest Conservation. The lands located in Ulpassa and Egodayaya are Dry zone forests comprising of valuable timber trees like Palu (*Manickara hexandra*), Weera (*Drypetacs eplaria*) and Ebony(*Diospyrasebenum*). The water way from Panama Maha Wewa (tank) to the lagoon runs through this forest area and the hotel built by the Air Force is also located in the forest strip between the land and the sea at the end of this forest.

Forest strip and wetland areas of Egodayaya and Ulpassa are rich in biodiversity and they become a paradise of migrant birds in some part of the year. It is also a habitat of a large number of reptiles, snakes, amphibians and birds endemic to Sri Lanka. The reptiles include Kota pibura(*Gongylopnis Conics brevier*), KudaMadilla(*AspiduraGuentheri Ferguson*), WairandatuKetiya(*Oligodontaeniolafu*) while the snakes endemic to the country living in the forest area are the highly venomous Thel Karawala (*Bungarus Caeruleus*), Depath kaluwa (*Calliopnis melanurus Sinnaaleyus*). In addition, number of endemic bird species as well as amphibians like Uthpathana Madiya (*Eupniyctis Cyanopniyctis*) and Wel Madiya (*Fejervarya Limnosharis*) declared as protected animals in the Flora and Fauna Act, are also found in these forest areas.Main elephant corridor linking Sagama Wild Life Sanctuary, Kudibigala Sanctuary and Yala East (Kumana) Sanctuary also runs through Ulpassa and Egodayaya forest areas.

Due to the reasons mentioned above, biodiversity will be eroded in the forest areas and other land categories in Ulpassa, Egodayawa and Ragamwelaand in addition loss of forest cover will lead to serious conflicts between people in Panama area and elephants using the elephant corridor running through the forest. Though the matter was brought to the officers such as Divisional Secretaries and above and also to the President, land grabbing by the security forces continue in a renewed strength destroying biodiversity and livelihoods of people in the area.

The Government Agency officers are trying to convince villagers that even though the lands have been held by people for generations as their own, they have to be acquired by the government for development purposes evicting people from the area. Even though the security forces are using the forest area under the Forest Conservation Department, legal approval has not been obtained so far from the Forest Conservation Department or any other Authority required for implementing such development activities damaging forest. It should also be mentioned that the Forest Conservation Department has no authority to permit the use of forest lands for construction of hotels.

The temples in the area donated by the ancient kings for the use of monks for the purpose of long term sustenance of Buddhism cannot be allowed to loot in this way by the governments that come to power once in five years through land grabbing and robbing (Nidan) the hidden treasures) within them.

By now, there are ten hotel cabanas built in the forest lands located between the sea and the Panama lagoons. It is a total violation of the Costal Conservation Act No.34 Of 1981 according to which any activity other than cultivation or tree planting along the coast is considered a development activity for which a permit can be issued only after an Environmental Impact Assessment substantiating that the negative impacts of the development activity on the socio-economic conditions of the people in the project area, its environment, properties of religious, archeological and historical value are not significant. However, for the activities implemented by the security forces in this area, no such assessments have been done.

It is evident that though the country has legal provisions to arrest this situation, Acts such as Fauna and flora Act No:22 of 2009 and Costal Conservation Act No: 54 of 1981, the relevant acts to deal with this situation, are neglected and violated for land grabbing. Since these activities violate the rights of people's freedom for living, it is against the universally accepted Human Right Declaration of 1948.

While land grabbing is observed in large scale for tourist industry in coastal regions of the country, it is not confined to tourism alone. There are four large scale aquaculture projects, salt industries, power generation and industrial development projects implemented in the costal zones, creating negative impacts on the natural ecosystems and livelihoods of people. Out of them, 10 projects are being implemented now in coastal areas. Nearly 8116 ha have been grabbed for these projects. The areas comprises of mangrove forests, salt marshes, sand dunes and costal fauna and flora and dwelling places of fishermen. Due to these land grabbing activities, the fishing villagers have been directly or indirectly displaced. As a result of destroying lagoon and costal area ecosystems comprising of mangrove forests and through tree felling and earth filling, habitats of fawns, crabs and fishes have been seriously affected leading to reduction and total extinction of fish species. It has direct impacts on fishermen whose mail livelihood is fisheries. It creates nutrition related problems to the people in the country depending on the fish industry of the country for their protein needs.

3.Destroying Coastal land resources for Sport tourist Industry

The example cited above on land grabbing is not confined to Panama area. There are instances the coastal land resources are grabbed by the security forces for sport tourist industry. A fine example is the 4x4 Expedition, implemented by the Four Wheel Society of the Commando Force of Sri Lanka with the blessing of a few capitalists who are using country's invaluable natural resources for their enjoyment.

The track selected for this purpose runs through the coastal belt from Point Pedro to Kudaoya consisting of very valuable coastal strips, lagoons, forests and hilly terrains. The damage that would be caused to the environment through this expedition by way of land clearing etc. will be irreparable and can be considered as one with the most serious consequences for the future. Some senior officers of the Commando Force are also highly concerned about the destruction on the coastal ecosystem due to this expedition using powerful jeeps. It is only a very few officers of the Commando Force encourage holding this contest annually.

This expedition by the Army Commando Force shows the new trend in the country to harm the environment with the pretext of promoting tourist sport industry. Every citizen of Sri Lanka needs to be aware of the damage to the environment being caused by these so called development activities that brings only short term marginal profits to the country.

To our wonder, the Environmental Authority has granted permission for the use of the coastal belt for this expedition that causes damages to the ecosystems and natural habitats in the areas concerned. According to the media statement on this expedition, this is a pleasure trip the course of which runs through sand dunes in Manalkadu and Kokkuthudai, Chalaiand Dehiwatta lagoons to reach Kuda Oya Army Commando Camp in Uva Province via Thoppigala and Arugambe coast in the eastern province.

The damage to the environment due to this expedition has not been properly studied by the authorities concerned and amidst protests from the people, this motor racing contest was held in the last year too using very powerful 50 jeeps. It is unimaginable how long would these ecosystem take to recover from the damages done to them by running through sensitive environments like lagoons by way of emitting oils and pollutants.

On one instance, a similar expedition organized in Potuwil and Arugambe areas had to be given up due to protests from fishermen. However, it has now been emerged large scale with the blessing of some people with money motives at the expense of valuable natural resources in the area. If it is extremely necessary to hold these types of contests, they can be held using existing roads prepared for the purpose, but it is unfortunate to see the Army Commando Force implements this activity for the enjoyment of a few causing irreparable damages to the environment in the country.

The need has arisen now to consider formulating policies for implementing this type of tourism promoting activities sacrificing ecosystems and environments which are very limited in the country. The law enforcing authorities like Environmental Authority needs to act more sensitively for the protection of the environment irrespective of the pressure from the interested parties and the Army Commando Force.

4.Land grabbing by Businessmen, both foreign and local

There are numerous examples for land grabbing by foreign companies for various purposes such as agriculture and tourist industry. One such activity having effects and impacts on environment and livelihoods of people is reported from Monaragala district due to land grabbing by ill reputed Dole Multinational company for cultivation of a banana variety Cavendish by name. The extent of land grabbed and locations are shown in Table 1 below:

Table 1: lands granted to Dole Company for Cavendish cultivation – Monaragala district

| DS Division | GND | Village/area | Extent - Acres |
|---------------|------------|-------------------|----------------|
| Lunugamwehera | | Lunugamwehera | 4600 |
| | | national Wildlife | |
| | | Sanctuary | |
| Thanamalwila | Nikawewa | Meegaswewa | 1400 |
| Wellawaya | KudaOya | Kudaoya | 1800 |
| Buttala | Wandama | Wandama, Demodara | 1600 |
| Buttala | Wekadawewa | Wekada | 1200 |

All the lands shown in Table 1 are located in the watershed areas of Kirinidi Oya and Menik Ganga feeding Lunugamwehera and Weheragala reservoirs respectively. Assured water supply to these two reservoirs is dependent upon the watershed areas of the two rivers. However, these catchment areas have been mostly lost due to land grabbing by the Dole Multinational Company. For example, water in Kiridi Oya is being used by and large for the banana cultivation in Kuda Oya while water in Menik Ganga for banana cultivation in Wandama and Wekada. As a result, farmers in downstream areas, especially those under Lunugamwehera reservoir and associated Ellegala five tank systems and Veheragala tank face serious water shortage problems and some have abandoned crop cultivations in their land. Wild animals in sanctuaries like Yala and Lunugamwehera in the downstream areas too face water shortage problems due to water tapping forthis large scale banana cultivation of the company. As electrical fences have been erected for the protection of these cultivations, wild elephants roaming in the jungle areas have lost access to their routes and started to enter in to village creating hitherto unknown level of human-elephant conflicts.

The areas seriously affected due to human elephant conflict with the expansion of banana cultivation in the catchments of Menik ganga and Kirindi Oya are Mahaaragama, Pubudugama, Ulkanda, Thalakolawewa, Handapanagala, Nelugala, Weherayaya, Randeniyaya, Thelulla, Siripuragama, Adawelayaya, Anapallama, Weliara, Dambeara, Balaharuwa, Hambegamuwa and Thanamalwila. Many farmers have given up crop cultivation in the face of increasing human elephant conflicts. It is unfortunate that this large scale land grabbing for banana cultivations is made with the blessing of a few politicians in the area creating problems for people, animals and nature violating country's laws and legal processes and procedures for environmental protection.

The activities of the Dole Company are not confined to these areas in Monaragala. The other locations where it has started damaging the environment through forest clearing for banana cultivation are given in Table 2 below.

| District | Locations | Description | Extent - Acres |
|-------------|-------------|-----------------------------|----------------|
| | Maiyangana | From the 4 th km | 1500 |
| | Ulhitiya | post at | |
| | | Maiyanganaya- | |
| | | Giraduru Kotte | |
| | | Rd up to Ulhitiya | |
| | | tank catchment | |
| Polonnaruwa | Somawathiya | Somawathiya | 3000 |
| | | Forest Reserve | |
| | | Chunnakkadu | 15,000 |
| | | Forest Reserve | |

Table 2: Other locations encroached by the Dole Company

Extent of 1500 acres in Ulhitiya in Maiyangana area in Table 2 is reserved land under Mahaweli Authority prior to being grabbed by the Dole Company. It is mainly the catchment of Ulhitiya Reservoir. An elephant route in the area is also disturbed due to banana cultivation in this area and may lead to human elephant conflict in future. Entry in to this area

is strictly prohibited for the general public. Clearing of forests for large scale cultivation is totally against the National Environment Act.

For the cultivation of banana in 3000 acres of the Somawathiya Wild life Reserve, the company has obtained permission from the Wild Life Conservation Department. It should be highlighted that Flora and fauna Act prohibits even entry of people in to these wild life sanctuaries and forest even though the Dole Company uses them for banana cultivation clearing the forests at their will.

It is reported that Dole Company has grabbed 165,000 acres of land in Sri Lanka for the cultivation of Cavendish banana for export market through the support of politicians and officials who have been bribed for this purpose. The company has started cultivating this banana variety to face marketing problems caused due to attack on the crop by the fungus, something called a Fusarium wilt which has by now hit Asia and Africa and has now reached Australia's banana-growing regions,

In addition to banana cultivation by the company itself, it has started implementing banana cultivation activities through local business partners. One such example is the banana cultivation in Maduru Oya forest reservation area on Maiyangana Giradurukotte road by the DSI, a shoe manufacturing company in the country. A forest area of 500 acres has been cleared for banana cultivation. It has been reported that human elephant conflict is on increase in Girandurukotte area too with the clearing of forest areas. Above all, water sources has been polluted due to agrochemicals used for banana cultivation, Pollinators are in extinct.

A company called Siyumak has cleared around 200 acres of forest near the barrier Junction in Giradurukotte for cultivating banana, mangoes and papaya. This too creates human elephant conflict as elephants move in to village and damage the crops cultivated by small holding farmers when the jungles in which they roam are cleared for cultivation activities.

Similarly, in RahalMadu forest area outside Wilpattu Wildlife Sanctuary, 695 acres of virgin forest lands have been cleared and a farm named H.V.I. has been established to cultivate fruit crops. This farm belongs to a company owning a television channel and politicians in the area have supported the company to grab forest lands for agricultural purposes.

Two more cases of land grabbing is reported from Wanathawilluwa DSD area, one in Mailankulama where 344 acres of forest land are being used by a company named S.K.N. for banana cultivation and the other by the E.T.I., a company owned by a Television Channel which has established a farm in a forest area of 145 acres owned by the government. Both have used virgin forest areas for these cultivation activities.

The major problems arising due to these deforestation activities are mainly:

<u>Water scarcity</u> - Large scale clearing of dry mixed evergreen forest which functionsas catchments of tanks and watershed of river basins leads to create acute water scarcity problems in the forest areas concerned and downstream of them.

<u>Floods and droughts</u> - Tropical forests soak up water during storms and release stored water during droughts, which is known as the sponge effect. This phenomenon is at the center of a debate about how to minimize flood damage and maximize water availability in the tropics. Clearing of forests in large scale disturbs these mechanisms and causes droughts as well as floods in tropical countries. People in the affected areas may encounter livelihood related problems due to floods and droughts.

Soil erosion occurs due to lack of forest cover making soil less fertile. Tanks, rivers and water courses fill up with sediments reducing their capacities.

During dry periods, moisture depletion through evaporation is high due to loss of forest cover. Ground water also depletes along with this process. As a result, people in the areas experience drinking water problems and water shortage for their crops.

Legal implications

Deforestation activities by the companies are carried out with the support and blessings of government organizations like Mahaweli Authority, Environmental Authority, Forest Conservation Department, Department of Wildlife Conservation and some politicians. These activities are against the National Environment Act, Forest Conservation Act and Flora and Fauna Act. The legal framework of the country is adequate to arrest these problems, but agencies responsible for pursuing legal action are neutral; may be due to political influence or being bribed by the companies like Dole which has an ill-refutation worldwide over their dealings.

The forests are being cleared violating the para 7 of the Forest conservation Act No.65 amended in 2009. It is an offence to enter a forest without permission, stay therein, fell timber, clear forests, cultivate crops in forest areas, construct roads and buildings in them. Agencies like Mahaweli Authority helps implement deforestation activities irrespective of the legal measures provided in country's legal acts.

According to provisions provided in the Forest Conservation Act, a person committing offences under the Act or supporting can be fined an amount not less than Rs.10, 000 and not exceeding Rs.100, 000 or imprisoned for a period not exceeding five years. The court also can order offenders to compensate for the damages caused to the forest area through offensive activities.

In case of the Government Forest lands falling under Para 20 of the Act, offences such as forest clearing etc. are punishable offences. Mahaweli Authority implements its settlement and other so called development programs violating the law related to preservation and conservation of forests in the country. It is unfortunate that Forest Conservation Department does not take any legal action against Mahaweli Authority for the damages being done to the valuable forest resources in the country.

The gazette Notification No: 772/22 of 24th June 1993 issued as per the National Environment Act No: 47 of 1980 amended finally by Act No: 53 of 2000 states that a writtenprior approval of the Environmental Authority is required to clear a forest area exceeding one hectare for a development activity and also when implementing a settlement program for more than 100 households. In spite of these regulatory measures, Mahaweli Authority is implementing programs violating those creating serious negative impacts on environment and people. It is regrettable that law enforcing authorities like Environmental Authority does not take any legal measure to stop them.

5. National Physical Plan and its Implication on Land and Environment

The Government has developed a National Physical Plan to be implemented from 2011 - 2030 with the aim of developing the country following the easy paths open under globalization. It is important to analyze the plan considering its implication on environment and the socioeconomic and political situation of the country.

This plan intends to develop the country as a center of naval and air travel, trading, power and education but not as a center of environmental protection or farming.

The Government has signed an agreement with 36 countries including India and China on 4th July 2005 to build a network of highways in Sri Lanka and link it with the Asian Highway network. As per this agreement, highways will be constructed betweenMatara and Hambantota, Kandy and Colombo, Hambantota and Ampara. Finally it will be connected to Asian highway network via Mannar and Danuskody in India. In addition to these main highways in the country, the other main towns will also be linked through a similar highway network. The length of this road network will be around 11697 km and they will be constructed by sand and earth filling as in the case of Kottawa – Pinnaduwa highway.

In addition, an island wide railway network will also be constructed and linked to Indian railway network through Adam's bridge at Mannarvia Danuskody in India. It has also been planned to charge exorbitant rates for these travelling.

Tourist industry is to receive a priority in the development plan. There will be tourist hotels constructed along coastal belt, beaches and lagoons and at ecologically important places to promote tourism. The proposed hotels will come up in areas from Chillaw to south and north in country, in ancient cities like Anuradhapura and Polonnaruwa and forest areas of Bibile and Nilgala and other locations.

The countries such as United States of America, China and India wish to develop Sri Lanka as a center of air travel. For this purpose, Katunayakaairport will be expanded and improved.

Two new air ports are also to be constructed at Mattala and Higurakgoda. It has also been planned to develop the existing air ports at Palali, Trincomalee, Puttalam, Batticaloa, Kalutara, Ampara, Vauniya, Anuradhapura, Galle and Ratmalana. From 2013 onwards, new air ports will be constructed at Kandy, Nuwara Eliya and Dambulla. According to this plan, there will be 19 airports in Sri Lanka by 2030.

The national physical plan proposes developing areas like Anuradhapura, several places in the North and Monaragala for production of export oriented crops such as vegetables, groundnuts, sugar cane, farm oil and timber for market. Investors will be allowed to start new industries. Municipal council zones, special towns and district capitals will be established in agriculture based areas like Mannar which have now been earmarked for development of industrial zones, investment zones, information technology centers and commercial centers and not as centers of agriculture. The areas from Gampha district to Kalutara, from Matara, Hambantota up to Tanamalwila is to be declared as Municipal zones. Similarly, the areas between Ampara and Batticaloa will be renamed as Eastern Municipal zone while Trincomalee, Polonnaruwa, Dambulla and Anuradhapura areas will come under the North Central municipal Council area. Mannar, Killinochchi and up to point Pedro will be renamed as North Municipal Council zone. The proposed plan to settle people in these Municipal zones is shown in Table 3 below:

| Municipal zones | Population to be settled (Million) |
|------------------------------|---------------------------------------|
| Western Municipal zone | 3.5 |
| Southern Municipal zone | 1 |
| Galle Municipal zone | 1 |
| Eastern Municipal zone | 1 |
| North Central Municipal zone | 4 |

Table 3: The population proposed to be settled in Municipal Zones by 2030

It has been mentioned in the proposal that the people in disaster prone areas should voluntarily move in to the municipal zone areas.

The other development activities proposed are mining of minerals in the coastal areas, different types of hydropower generation activities, nuclear power and coal power generation and development of 40 fisheries harbors and increasing the number of fishing crafts in use up to 40,000. Development of fiber optic information network from Batticaloa up to Hambantota connecting Lahugala, Yala, Udawalawe Wild life sanctuaries is also included in the plan.

5.1 Impacts on nature due to the proposed physical plan

The national Physical Plan to be implemented from 2011 – 2030 creates serious negative impacts on the eco-systems which have not so far been disturbed from development interventions. The proposed Municipal zones, highways, coal power and nuclear power generation projects and commercial crop cultivation activities will impact on environment significantly.

As a result of Colombo – Matara highway, Sinharaja forest declared as a World heritage, will be fragmented twice and 39 forests including Sinharaja will be destroyed due to the proposed development activities. The Udawalawa wildlife Sanctuary, Wetahirakanda, Lunugamwehera, Madunagala, Weerawila, Nimalawa, Bundala, Ussangoda, Kataragama, Katagamuwa, Ruhunu Yala, Sagama, Buddangala, Ulpassa, Egodayaya, Mahakanadarawa, Anuradhapura, Mihintale, Ritigala, Kahalla, Pallekele, Sigiriya, Mnneriya, Giritale, Elehara, Bakamuna, Kavudulla, Somawathiya, Neval headwork, Chundikulama, Wilpattu, Yodawewa, Wenkaladi, Madu Reservation, Muthurajawela, Kalametiya, Priyakachchi Wildlife Sanctuaries and forest reservation will be highly disturbed due to highways. Bibile Nilgala area would have tremendous repercussions as a result of the proposed hotel complexes. Land grabbing for these purposes will continue hitherto unknown scale in future.

Table 4 provides information on forest areas destroyed in the process of implementation of the national Physical Plan.

| Year | Population growth rate (%) | Decrease of forest (%) |
|------|----------------------------------|------------------------|
| 1981 | 2.4 | 82 |
| 1900 | 2.7 | 70 |
| 1956 | 11.2 | 44 |
| 1983 | 15.1 | 27 |
| 1992 | 17.4 | 24 |
| 1998 | 18.1 | 20 |
| 2002 | 19.2 | 18 |

Table 4: Percentage of forest area affected due to National Physical Plan

| 2007 | 19.4 | 17 |
|------|------|---------|
| 2011 | 20.1 | 16.8 |
| 2030 | 25.1 | 13 - 10 |

Percentage value of available forest area in 2012 is around 16.5 and by 2030, this will be further reduces to 13% - 10% with the decrease of forests due to the implementation of national Physical Plan.

In 2011, around 65000 acres of land was given to the Dole Multinational Company and CIC Company from the reserved forest areas in the country for banana cultivation. If this trend in granting lands to private companies continues along with the proposed development activities in the National Physical Plan, the percentage value of the existing forest area will reduce below 10%.

At present, out of the land area of 65525 sq. km in the country, 83.5% is already in use for tea, coconut and rubber cultivation, construction of towns, human settlements and other crop cultivations, the remaining land area under forest cover is 16.55 only.

As result of these deforestation activities, Sri Lanka now in the fourth place among the countries destroying primary forest will become the first among them. This will lead to the extinction of the biodiversity in the country threatening the following flora and fauna species.

| Category | No. of species | Endemic species |
|--------------------|----------------|--------------------|
| Mamals | 124 | 21 |
| Birds | 437 | 39 |
| Reptiles | 209 | 125 |
| Amphibians | 111 | 95 |
| Inland fishspecies | 91 | 50 |
| Flora species | 3159 | 894 |

Table 5: Flora and fauna affected

The unsustainable development activities planned to be implemented up to 2030 will lead to extinction of valuable flora and fauna species in the country. Even at present Sri Lanka is considered as one out of 24 biodiversity hotspots in the world threatened with extinction.

With the continuing large scale deforestation, the forest areas in the country will reduce to 13% - 10% with which ground water levels in the forests will deplete and the rivers will suffer from acute water shortage and go dry. It has been identified that 103 rivers will become dead rivers as in the case of Maguru Oya which is almost dead by now.

In the process of building of large cities, a large number of minor tanks will disappear and tank cascades will be blocked disturbing the natural water flow conditions. As a result, droughts and floods will become a recurrent feature of these areas.

Water scarcity and water pollution is unavoidable under these circumstances. Selling of drinking water, levying of taxes for wells and for irrigation water will be compulsory under these circumstances.

It will also be required to confine animals to limited blocks of forest lands around 50 sq. km in extent as had been proposed in the National Elephant Management Perspective of 2009. The elephants that escape from the areas breaking the electric fences will be classified as dangerous animals and will be sold out to individuals under the proposed program.

As a result of excessive use of agrochemicals by companies like Dole in large scale for crops such as Cavendish banana, soil and water resources will be polluted hitherto unknown scale damaging biodiversity and water quality. This situation can now be better understood by studying areas under Cavendish cultivation.

The agricultural including paddy cultivation and commercial crop cultivations undertaken by companies clearing forest reserves will be profit oriented business activities pursued mainly by the companies under the proposed National Physical Plan in future.

The Mahaweli Development Plan which started with the anticipation of achieving a tremendous development within a short period resulted in ecological disasters, increasing human elephant conflicts, land fragmentation and commercialization of agriculture and the pauperization of peasantry. The country is still paying debts to international funding agencies

that provided funds for Mahaweli Accelerated Development Program. This trend continues with the development activities proposed under the National Physical Plan.

Funds for the destructive National Physical Plan are provided by the funding agencies like the World Bank and Asian Development Bank. People like John Parkinson who wrote the Book "Confession of an Economic Hit man" says that Countries like America believed in a rapid tremendous development through their development interventions and when they found them fail one by one, they made efforts to maintain their economy strong, exploiting other countries by way of high interest rates and conspiracies to topple down governments acting against their policies and so called development programs.

In Parkinson's's view, the capitalist countries build hope in the minds of leaders in poor countries through their imaginary models for rapid economic development. One such example is Thorochchol Coal Power Project in Sri Lanka. The project has failed to provide any benefits promised at the inception. It is finally at a loss and we have lost not only the anticipated profit but also the land provided for the project.

Parkinson further says people like him serving foreign companies are trying to convince the other developing countries of their development strategies and provide loans through which those countries can be caught in an everlasting debt trap. The capitalist countries make huge profits through interest charged for loans and exploitation of natural resources of the countries concerned. They are also concerned with appointing people who obey their policies and commands as the leaders of these countries and also changing leaders who work against their interests.

This development policy is now being implemented in the country through the proposed National Development Plan. Sustainability of fauna and flora, lands, water are less important to them in their development. Any country pursuing development goals with due regard for the environment, especially its sustainability has not been able to achieve desired economic and political developments. America is one such country being ruined due to lack of due regard to the environment.

6 Manmade hazards

A large number of case studies of land grabbing that have effects and impacts on watersheds and catchments, different ecosystems, flora and fauna as well as livelihoods of people are presented here. The case studies presented first are on land grabbing in watersheds, catchments and forest areas in several districts in the country. Secondly, different kind of problems such as landslides, drying of wells and water scarcity due to some development intervention like Uma Oya is presented.

6.1Land grabbing by Nelna Company

Nelna Company has acquired 2000 acres of government land in Demaliya area located just below Kadawarawewa tank in Wandama coming under Wellawaya DSD in Monaragala district for mango cultivation. This area is also located close to Lunugamwehera Wildlife Sanctuary. Originally, Chairman of Wellawaya Pradesheeya Sabha, Mr.Rohana Wanniarachchi had encroached 40 acres of government land. He later helped Nelna to grab 2000 acres of government land along with his 40 acres of encroached land to establish the mango cultivation. The forests have been cleared for this purpose and mango cultivation has been established in 2000 acres by now. For the protection of the crop, an electric fence has been erected through which even a small animal cannot enter in to the farm.

6.2 Land grabbing in Maragala Kanda (Maragala hill)

Mrs. Sumeda G.jayasena, a minister in the present government and her supporters are engaged in large scale land grabbing in Maragalakanda in Monaragala DSD for rubber cultivation. An extent of 500 acres of land belonging to Land Reform Commission located in Sirigala Division of Maragalakanda has been granted to a Company named Olwin owned by Minister Sumeda and her friends.

Maragala is an important place due to the fact that it is the main catchments of Hada Oya and Hada Oya flowing to the sea at Arugambe and Panama respectively. In addition to land grabbing by the Minister Sumedha and her friends, around 20 – 50 acres of forest land have also been grabbed by her media secretary, Mr. Wijekone, Chairman of Monaragala Pradesheeya Sabha, Mr.R.N.Rathnaweera and a Pradesheeya Sabha member named Sanath Piyasoma through illegal means.

6.3Land grabbing in Sinhalayagama and Suriyaara

Former Chief Minster of Uva province has granted 650 acres of lands including forest and the lands in the catchments of Naiyala and Kumaragama tanks located Suriara GND and owed by Kataragama temple to a person called Kos Mama (nick name). Out of these lands, 300 acres have been cleared using dozers and a mango cultivation established. The workers in this farm are farmers in the area who had been using these lands for chena cultivation. As they have lost their lands due to land grabbing by influential people, they have become poor and destitute and live by working as wage workers.

In addition, another 150 acres of land in these areas has been given to a Deputy Inspector General (DIG). Another 500 acres of land located close to Sinhalayagama tank in Kalawelpala falling under Mahawewa GND in Tanamalwila DSD have also been given to a company that does not reveal its name.

6.4 Udawalawa at stake due to water supply to Mattala

An irrigation development project is being developed secretly at present to supply water to Mattala area developed for the purpose of diverting water in Walawe river through scrupulous means. For this project, water in Walawe river is to be tapped at a location above Udawalawe reservoir and diverted to Udamavuara tank located in Udawalawe National Sanctuary. The water diverted to the Udamavuara tank is to be issued to Mattala area through Magalla tank. Chinese Company is carrying out the construction activities in this project at present. Residents in Walawegama, 5th, 6th and 7th Mile Posts and Useliara villages work as laborers in this project. As a result of tapping water in Walawe river for development activities in Mattala, the farmers in Udawalawe who are already experiencing water shortage problems will face serious water scarcity situations.

This will deprive farmers in Samanalagama, Ginigalpalassa, Kiriibbanara, Habaraluwewa, Sevanagala, Thuniriyawa, Ranweligama, 16 Ela, Habarugala, Bahirawa, Mahagama, Hathporuwa, Kurugamwadiya and Suriyawewa in the Left Bank area of Udawalawe in Sevanagala DSD in Monaragala district of crop cultivation due to water shortage problems making them economically displaced.

6.5 Land grabbing in Wilambawewa

Several rounds of discussions were held recently on the initiation of the Minister of Wild Life to acquire 200 acres of forest land in Wilabawewa area associated with Wilabawewa tank through a gazette notification. It has been decided to erect an electric fence around the land after land acquisition. It is to be subdivided among the supporters of the Minister of Wildlife. The proposed gazette notification declares that these 200 acres of land no more belongs to the Lunugamweher Wildlife Sanctuary.

In the process of acquisition of forest land in Lunugamwehera Sanctuary for various projects and programs, another 800 acres too will be lost to the Wild Life Department totaling to 1000 acres with the 200 acres discussed above. This will sharply increase human elephant conflict which is already a serious problem in this area.

6.6 Land grabbing in Muthurajawela

The Muthurajawela Marshes are situated just south of Negombo and covers an area of approximately 6,000 hectares inclusive of the Negombo lagoon. The daily high tide brings in seawater from the ocean into the wetland. Continuous mixing of these two waters over thousands of years, has led to a brackish, integrated coastal ecosystem that is biologically diverse and teeming with life. A variety of mangroves and other types of flora including medicinal plants are found alongside numerous types of birds, butterflies and fish, some of which are endemic. Crocodiles, monitor lizards, and Sri Lanka's largest snake, the Python, are also native.

This wetland area of immense ecological value is now being sold at Rs.35, 000 per ten perches of a land. A politician in the area is involved in this land grabbing activity and on his interest, 800 allotments, each with 10 perches have been sold to his political supporters. The recipients of these lands are clearing the wetland areas such as New Sirirgama, Leenas Wella, Weliketiya and Pamunugama falling under the Sanctuary for road construction.

Mangroves in the sanctuary is being felled and burnt along with other forest lands. Some time back, Felix Perera, a powerful minister of the present government supported attempts by some individuals to build hotels in Koraligula area in Negambo removing mangroves, as revealed by us. Now the government is directly intervening to destroy Muthurajawela completely.

The protection of Muthurajawela Sanctuary lies with the Department of Wild Life and the Central Environmental Authority. Both organizations are not observed to take action to protect Muthurajawela being destroyed by the politicians and their henchmen, in spite of the fact that there are Acts and Ordinances such as Flora and Fauna Act, Environmental Act to arrest this situation through legal means.

There are also discrepancies in data of the two organizations, the Environmental Authority and the Wildlife Protection Department. According to a publication named "national Wetland Directory of Sri Lanka of the Environmental Authority, extent of land in Muthurajawela declared as a sanctuary on 31.10.1996 is 2569 ha. However, according to a handout named "wetlands of Sri Lanka" published by the Department of Wildlife, the extent of land in first part of the sanctuary is 1028.6 ha while in second part, there is a land area of 256.8 ha. As a result of lack of data on the extent of land under the sanctuary and also lack of clearly defined boundaries and lack of law enforcement, it has been easy for the politicians, foreigners and other interested parties to grab land in the sanctuary.

Muthurajawela is a wildlife sanctuary and accommodates over 194 species of Flora distributed over seven major vegetation types which includes marsh, lactic flora, shrub land, reed, swamp, grasslands, stream bank and mangrove forest. A total of 194 species of vegetation belonging to 66 families have been recorded which include one endemic species (Phoenix zelanica). Among the different types of vegetation, the shrub land consists of 115 species with the mangrove forest and stream bank consisting of just 23 species each. Due to the high level of human activity within the sanctuary, the flora composition at Muthurajawela seems to be changing rapidly.

The vertebrate fauna includes 40 species of fish, 14 species of reptiles, 102 species of birds and 22 species of mammals. Among the total vertebrate species documented 17 are endemic while 26 are nationally endangered. Among the invertebrates documented 48 species are butterflies and 22 species are dragonflies.

Though notice boards by the Director of Wildlife stating that activities such as hunting, fishing, collection of eggs and trapping animals within the sanctuary are punishable offences appear everywhere in the sanctuary, the regulations are not enacted and the sanctuary is ravaged by human interventions. Damages being done in Muthurajawela are worse than those committed by the British through their Wasteland Act of 1896.

Muturajawela is an area to which water in surrounding areas including Colombo drained in to during rainy periods. As Muthurajawela has been earth filled to construct factories and settlements etc. floods occurs in Colombo after rains as there are no lowland areas to accommodate rain water collected in Colombo and suburbs. During president Chandrika's rule, more than several metric tons of sand were dumped in the sanctuary for the construction of a highway. This project not only wasted the government money but also Muthurajawela that served as wetland area accommodating rainwater to arrest floods in Colombo and suburbs.

6.7 Leasing of Nakolagane elephant crossing to companies for fruit crop cultivation

Nakolagane forest area in Ehatuwewa DSD located in Galgamuwa electorate in Kurunagala district has been grabbed and been cleared for cultivation purposes and threatened with total extinction of fauna and flora and degradation of soil. The areas being cleared are in the catchment of Palukadawala tank and removal of forest cover has led to problems such as soil erosion in the catchment and filling up of the reservoir with sediments from the catchment after rains. The multination companies that have grabbed these lands develop them for sandal and mango cultivations. The development activities are threat to the farmers cultivating under the tank as it would create water shortage for paddy, their main livelihood activity.

As these companies have erected electric fences and guard their farms employing watchers armed with guns, wild elephants in the area have started to roam in villages damaging houses and paddy cultivation under the tanks. The electric fences protecting villages have become less useful under increasing threat of elephants entering human settlements. The villagers who did not face conflicts with elephants previously have now threats from wild elephants with the clearing of jungles which are habitats of these animals.

6.8 Nilgala lands granted to private companies

According to available literature, NilgalaForest Area (NFA) is one of the largest and important forest areas in Monaragala District, Uva Province. It contains 12,432 hectares. The vegetation comprised with lowland tropical moist semi evergreen forest and savannah forest, home gardens and small patch paddy cultivations. The dominant tree species are Aralu (Terminaliachebulav), Bulu (Terminalia bellirica) and Nelli (Phyllanthus emblicay). Other than biodiversity, Nilgala is rich of archaeological monuments, such as prehistoric, proto-historic and historical Buddhistmonasteries.

In spite of the importance of this forest as an area rich with biodiversity, political henchmen with support from politicians like Wijithamuni Soyza have started ravishing Luna Thibbagala forest reserve in Nilgala. Even though the officers of the forest Conservation Department have taken legal action against some of these encroachers, the offenders have shown them a letter issued by the Minister Wijithamuni Soyza granting them permission to cultivate in these lands. As per this letter, Minister Vijithamuni Zoyza has ordered the district Forest Officer/ Monaragala to grant these lands for chena cultivation as recommended by the Director of the Forest conservation Department. The action by the Wildlife Minister, Wijithamuni Soyiza to give orders to an officer not under his ministry this way is itself not legal. The former Minister of Wild Life has committed an offence against the Wild Life Conservation Act by initiating and assisting his political supporters to grab government forest lands in Nilgala.

The harmful activities in Nilgala is not confined to these land grabbing. The politicians have asked the officers of the Forest Conservation Department to stop land surveys undertaken by the department to demarcate the boundaries of the forest area in the face of Uva Provincial Council election. This means that the plots by the politicians for further land grabbing are not over.

The major vegetation type of the Nigala Forest is lowland tropical dry mixed evergreen forest. Commonly found trees *include Aralu (Terminalia chebula), Bulu (Terminalia bellirica) and Nelli (Phyllanthus emblica). Other trees such as* Kumbuk (Terminalia arjuna), Kon (Schleichera oleosa) and Kaluwara (Diospyros ebenum) are also present. Savanna grassland areas consist of Kudumberiya, Kukurumana, Pangirimana, Mana, Iluk and similar. The grass land also consists of Heenpagiriya, AthThuththiri, Maha Pinibaru Thana, Pinibaru Thana, Ath Adi and Wishnu Karanthi grass species. This forest type is endemic to Uva Province.

The forest consists of its share of larger animals from elephants to Buffaloes, but the park is more popular among bird watchers. There are faunal species endemic to the Nilgala forest in Uva province. For example, two bush lizard species of Lacertidae family known as Ophisops leschenaultia lankae and Ophisops minor minor are such endemic species. The Opisops minor minor was introduced to the scientific community in 1971 by Dr.P.E.P.Daraniyagala based on data and information collected in Nilgala area in 1968 by some museum officials.

An amphibian endemic to this area is Nanophrys naeyakei discovered in 2007 by a group of scientists including Mr.Mendid Wickramasinghe.

The birds that are endemic to Sri Lanka living in Nilagala forests are Jungle Bush Quail (Perdicula asiatica ceylonensis), Painted francolin (Francolinus Pictus watsoni) and Yellow footed Green Pigeon (TretronphoenicopterusPhillipsi). These species are considered as critically endangered among the birds in Nilgala forest area. The use of the forest for chena cultivation will lead to the extinction of biodiversity in Nilgala forest including the species endemic to Sri Lanka.

7 Clearing of lands for resettlement purposes

It came in to the light in a recent study by us that 17 protected forest areas of 16500 acres under the Forest Conservation Department is being cleared for resettlement and agricultural purposes in the districts of Vauniya, Mullativu and Ampara districts in northern and eastern provinces. Out of these protected forest areas, 9 are reserved forests and the rest are under the government control. While the Forest Conservation Department keeps quiet, deforestation activities for resettling the displaced, which started during President Mahinda Rajapaksa's regime is observed to continue.

These activities are implemented illegally violating Forest Protection Act, National Environment Act, Archeological Act and other land development and management related Acts. As a result of land development for resettlement and agriculture, clearing existing forest areas leads to deterioration of watersheds, catchments of tanks and rivers and loss of habitats for animals including elephants. Final outcome of these land grabbing activities are water shortage not only in the forest areas cleared but also in downstream areas depending on water from watersheds of rivers and increase of human elephant conflict.

The reserved and protected forest areas under the government and the Forest conservation Department being developed for settlement and agriculture purposes northern and eastern provinces are shown below in Table 6.

 Table 6: Forest cleared illegally for settlement and agriculture

| Name of the forest | Purpose of | Extent - |
|--------------------|------------|----------|
| | clearing | acres |

| Karunkalipuram reserved forest | Settlement | 5000 |
|---|------------------|------|
| Marichchukkaddi – Karadikkuli reserved forest | Settlement | 3000 |
| Madu road reserved forest | Settlement | 800 |
| Puwarasankulama reserved forest | Settlement | 575 |
| Kulamarippu reserved forest | Settlement | 983 |
| Nagancholyi reserved forest | Settlement | |
| Irasenthiram kulam reserved forest | | 100 |
| Bakmitiyawa – Thibirigolla reserved forest | Crop cultivation | 1000 |
| Kubukkana reserved forest | Crop cultivation | 70 |
| Wadakadu reserved forest | Settlement | 500 |
| Kakenikulam forest | Settlement | 500 |
| Periyamadu forest | Settlement | 1650 |
| Oddusudan forest | Settlement | 975 |
| Muhudubada pattu forest | Settlement | 850 |
| Karadikkulu government forest | Settlement | 180 |
| Salambaikulam forest | Settlement | 200 |
| Suduwettakulam forest | Settlement | 125 |

Karunkalipuram reserved forest shown in Table 6 is of special importance in Vauniya district. An extent of 5000 acres have been cleared by the Sri Lanka Mahweli Authority, Civil Defense Force for settling people and people settled during the former government.. This forest area was declared as a reserved forest by the gazette notification No. 8620 dated 7th June 1940 and also by a gazette notification No. 371/7 of 15th October 1985. The total extent of the forest is 8432 ha. Ebony trees in the jungle were a lucrative business for the parties involved in forest clearing. This illegal activity was implemented to develop this area as Mahaweli L zone. As a result of forest clearing, human elephant conflict has been increased and electric fences have been erected separating the forest in to two sections. The Army is making efforts to obtain another 3000 acres of forest lands from this area for settlement purposes, but it has been temporarily withdrawn due to pressure from environmentalists.

The new settle programs implemented by Minister Rishard Badurdeen are devastating forest area in Mullativu, Vauniya and Mannar. For these settlement programs, 10438 acres of forest lands, in 6 reserved forests and 8 government forests have been cleared. There were a large number of protests against his settlement program implemented in the forest area in northern part of Wilpattu. These lands belong to Marichchikkandi – Karadakkuli reserved forest areas which are the watersheds of kalaru Oya. He has already encroached on 3000 acres of forest land in the forest area for settlement purposes and for his own individual needs.

The Minster held a meeting with the Government Agent Mannar, DS of Musali DSD and Navy officers to acquire another 900 acres of land in Marichchukkaddi forest area in the boundary of Wilpattu for new settlement and agricultural development. His settlement programs started during previous government continues even during the present so called Yahapalana (just) government.

Forest land area of 100 acres in Irasenthiyakulam in Settikulam DSD in Vauniya district, as indicated in Table 6, has also been cleared to be developed as settlement. This land is located close to Pavakkulam tank.

When the present government was implementing 100 day program, these deforestation the notice of the new government. were brought to activities However, MinsiterRishardBadurdeen continues his settlement program with a renewed strength at present, demolishing valuable forest resources in the country even under the present government. National Tamil Alliance opposed his settlement activities implemented in Kondiyakuppam area in Maduforest reservation in Mullativu DSD. On the support of the Minster Rishard, 600 acres of forests have been cleared in this area too to settle people. Though number of environmental activists brought this to the notice of the present government, no legal action is taken to arrest island wide deforestation for establishment of human settlements. As a result, a new trend has been developed to grabbing land by politicians for settling people. This problem is also related tolack of proper planning for settlement of the people in northern and eastern provinces displaced by the war. This has paved way for the Minister Rishard Badurdeen to plan and implement settlement programs in haphazard manner destroying country's valuable forests.

As shown in table 6, Kubukkana forest reservation and Bakmitiya and Thibirigolla forest reservation in Ampara district coming under Northern Province have been cleared for large scale agricultural farms on the initiation of Athawulla and Ravup Hakeem of the Muslim Congress. An extent of 1000 acres of forest land in in Wattamadu area in Makmitiyawa – Thibirigolla forest reserve and 70 acres in Radalla area of Kubukkana forest reserve have been developed for agricultural crop production under the initiation of the two politicians.

As discussed above in this paper, forests are being cleared violating Para 7 of the Forest conservation Act No.65 amended in 2009. It is an offence to enter a forest without permission, stay therein, fell timber, clear forests, cultivate crops in forest areas, construct roads and buildings in them. Agencies like Mahaweli Authority helps implement deforestation activities irrespective of legal measures provided by country's legislature.

According to provisions provided in the Forest Conservation Act, a person committing offences with regard to reserved forests or supporting such acts can be fined an amount not less than Rs.10, 000 and not exceeding Rs.100, 000 or imprisoned for a period not exceeding five years. The court also can order offenders to compensate for the damages caused to the forest area.

In case of the Government Forest lands falling under Para 20 of the Act, offences such as forest clearing etc. are punishable offences for which Rs. 5000 - 50,000 can be fined or sentenced for 2 years imprisonment or both punishments can be imposed. In addition, the court can order payment for damages caused to the forest. Mahaweli Authority implements its settlement and other so called development programs violating the law related to preservation and conservation of forests in the country. It is unfortunate that Forest Conservation Department does not take any legal action against Mahaweli Authority for the damages being done to the valuable forest resources in the country.

In spite of these legal measures for protection of forests, nothing is being done by the forest Department to arrest this situation. The provisions provided in Forest Conservation Act and Archeological Act has been violated when developing forest areas for settlement and agricultural purposes. The gazette Notification No: 772/22 of 24th June 1993 issued as per the National Environment Act No: 47 of 1980 and amended finally by Act No: 53 of 2000 states that a written prior approval of the Environmental Authority is required to clear a forest area exceeding one hectare for a development activity and also when implementing a settlement program for more than 100 households. In spite of these regulatory measures, Mahaweli Authority is implementing programs violating those creating serious negative impacts on environment and people. It is regrettable that law enforcing authorities like Environmental Authority does not take any legal measure to stop them.

The gazette Notification No: 1152/14 of 4th October 2000 issued as per Para 23 and 47 of the Archeological Act No: 9 of 1940 states that when settling people or clear more than 2 ha of land falling within a land of archeological significance, the damages that would be caused to archeological monuments etc. through the development activity need to be properly assessed and the prior approval of the Archeology Department should be obtained. It is unfortunate the Archeology Department too neglects taking legal measures to prevent damages being done to places of archaeological significance.

8 Construction of large tanks and emerging land problems

The implication of two large reservoirs, Uma Oya being constructed at present and Deduru Oya which has been recently completed were studied as examples damaging the nature and disturbing livelihoods of people through irrigation development activities.

8.1 Uma Oya project

As the project related literature highlights, the key objective of the Uma Oya Multipurpose Development Project was to transfer water from Uma Oya and Mahatotila Oya to the Handapanagala and Lunugamwehera Reservoirs. Through these reservoirs, water will be provided for irrigation, drinking and provision of water for industrial activities. Another major objective of the project is to construct a 60 MW power house which can be connected to the national grid. Of the total cost of Rs.76,316 million, the Export Development Bank of Iran (EDBI) is providing Rs.51,175 million, with a grace period of five years, repayment period of 10 years and interest at the rate of LIBOR + 0%. For the other costs, including Down Stream Development Works in the Kirindi Oya Basin, the government is providing Rs.15, 474 million. The project is to be completed within five years.

Uma Oya is a major tributary of Mahaweli Ganga, which has its headwaters in the Pidurutalagala range, Nuwara Eliya, flows through Welimada and Kandeketiya in the Badulla District and the confluence with the Mahaweli River is just above the Rantabe reservoir (Uma Oya falls). The basin covers a drainage area of 720 square kilometersout of which 65% is in Uva Province while 35% is in Central Province. The watershed area above Uma Oya project is 350 sq.km. As indicated above, the project has two main components, power generation and water supply for irrigation. For these purposes, reservoirs, tunnels and irrigation canals are constructed.

According to the information collected, in summary, the project envisages the construction of two 30-meter and a 40-meter high dams across the Dalgolla Oya and the Mahatotila Oya (two main tributaries of the Uma Oya at Puhulpola and Dyraaba - close to Atampitiya and Welimada). A link tunnel 4 kilometers long between the reservoirs will also be constructed. From Dyraaba near Welimada a 3.29-meter wide and a 24-kilometer long trans basin tunnel will be constructed to an underground power station at Randeniya close to Wellawaya on the right bank of Kirindi Oya.It is envisaged that the installed capacity of the power house at Randeniya (Alikota Ara) will be 90 MW to produce 312 GWh of electricity (recent figure is 231 GWh). Electricity generated will be supplied to the national grid.

It is proposed to divert 192 MCM of water annually to the Kirindi Oya. For this purpose, a tank will be constructed at Alikota Ara. After power generation at Alikota Ara, water will be diverted to Kirindi Oya reservoir. Water from Alikota Ara RB canal diverted to KudaOya tank will augment the Handapangala and Lunugamwehera and Weheragala reservoirs by feeder channels in the lowlands.

It is expected to irrigate 25,000 acres of paddy land both in Uva Wellassa and Ruhuna during the Yala and Maha seasons. It is planned to cultivate 12,000 acre of new land with paddy. It is further expected that this project could provide water to the Hambantota Harbor and the Oil Refinery at the Mattala International Airport and Hambantota Industrial Zone.

8.2 Losses due to construction of Uma Oya projec1

Around 98 houses and agricultural land held by 128 households in Welimada and Uva Paranagama submerges due to the construction of Puhulpola reservoir. The people in Divikotawara, Puhulpola villages in RB system and in IhalakotawaraPahalaKotawara and Welimada town area in LB system of Puhulpola reservoir will be displaced due to the project. Welimada – Badulla road at 3 km post and access road to Ihala and Pahala Kotawara villages too will be submerged when the project is completed.

Crops such as paddy, vegetables and potatoes are cultivated in the area submerged due to the construction of Phulpola reservoir. There will be a loss of 87.4 MT of paddy and income of Rs.2.62 annually due to loss of paddy cultivation. Around 8 ha of land under potato and vegetable cultivation will also be submerged causing crop losses amounting to 48 MT. Income losses due to these crop losses are estimated as Rs.2.16 Million.

Due to the construction of Dyraaba reservoir, agricultural land owned by 69 households submerges incurring a loss of 65.44 MT of paddy and income of 1.96 Million there from. Extent of 14.51 ha of upland and home garden under potato and vegetable cultivation submerges causing a loss of 87 tons of potato and vegetables. Loss of income due to this is around Rs.3.91 Million.

The people in large number of villages (Weheragalatenne Heeloya, Makulella Village etc) reports drying up f wells, cracks in buildings and houses due to the construction of tunnels. Their lives and livelihoods have been shortened. People are likely to be displaced due to the project.

It is also reported that ground is cracked and landslides are occurring in villages (Welimada, Udaperuwa, Palle peruwa, Ampitiya, Karagahawela, Boralanda, Rajakatuwa, Puhulpola, Dikpitiya, Ihala Kotawara, Pahala Kotawara, Maduwe Gedara, Amba dandagama, Abayapura, Kandekatiya). The government has accepted that these negative impacts are due to Uma Oya project construction activities.

Studies on the project

Environmentalistlike Tilak Kariyawasam says that in 1991 there was a feasibility study done by the Central Engineering Consultancy Bureau (CECB) to be given to the Asian Development Bank. "This study failed and the ADB rejected that feasibility study and the project was shelved. Due to the past experiences with regard to river diversification, none of the big banks were willing to fund this project. Then having no other option the previous government turned to the Chinese and the Iranians.

According to the technical guidelines given by the CEA they had prepared an EIA (Environmental Impact Assessment) which was carried out by the Sri Jayawardenapura University. There are criticisms that sufficient environmental impact assessments have not been carried out. According to environmentalists the risk of landslides due to projects like these can occur in other areas on the opposite direction. They have seen such an incident taking place recently.

The blasting, etc. can disturb the environment as well. Previously Professor Withanage had done a study on the landslide risks in the central hills and nearby areas. According to that study, he advised against having big reservoirs in the central hills as the soil and rock formation is unsuited for this purpose. According to him there is a risk of landslides in other adjacent areas,"

Kariyawasam says that the recent landslides in Koslanda could in fact be a result of the Uma Oya project as well.He further stated that it was also calculated that nearly 40% of the water to the Mahaweli came from the Uma Oya which was used for agriculture. "However, now due to this project, the Mahaweli River will be deprived of that water which will also have a negative effect on the farming.

This will cause a problem to the farmers in the future. Again in the Welimada, Mathetilla, and Dheyaraba and especially in the Soranathota and Bathmedilla areas it is a vast paddy cultivation area which is mainly fed by the Uma Oya. Further the Viyaluwa area solely depends on the water from the Uma Oya and due to this diversion, the people of those areas will face severe consequences.

An interesting research paper by Dr. Zanar Tokmechi of the Islamic Azad University Mahabad titled 'Land Slide: A Key Problem in Uma Oya Project Risk Controlling' published in World Applied Science Journal 12 (9) 1512 -1516 in 2011 had identified risky landslide zones and recommended the "best possible places to arrange buildings and equipment found in the Uma Oya project." It had been identified. "According to findings we say that it is dangerous to mobilize Uma Oya Project in zones 1, 3, 4 and 6."

In another research paper by Dr. Zaniar Tokmechi of the Department of Civil Engineering of Islamic - Dr. Zaniar Tokmechi of the Department of Civil Engineering of Islamic Azad University, Mahabad, Iran titled 'Finding Risky Environmental Zones Due To Flooding In the Uma Oya Project' published in Advances in Environmental Biology 5(9):2950-2955 in 2011, flood risk zones have been identified in the project area. It concludes that it is dangerous to mobilize Uma Oya project in zones 2, 4 and 5."

Other impacts

Uma Oya project is witnessing large scale land grabbing by politicians in areas demarcated for construction of canal network with the anticipation of using canal water for irrigation

The politicians have plans to build hotel complexes in lands near the proposed Handapangala reservoir. The chairman of Wellawaya Pradesheeya Sabha who is a supporter of the former Chief Minister of Uva Province is building a hotel in the Handapanagala tank reservation, grabbing government land illegally. It is very unfair of the politicians to make profit out of this situation while people in the area encountering serious problems like displacement and loss of livelihoods.

8.2DeduruOya Irrigation project

Deduru Oya reservoir was constructed in Minuwangate are in Wariyapola DSD in Kurunagala district damming Deduru Oya for irrigation water supply to lands in dry and intermediate zones of Kurunegala and Puttalam Districts, where the people are frequently suffering from water scarcity, according to government sources. Benefits from the Project will uplift the living condition of these people. The Reservoir will hold 75 million cubic meters of water after its completion and it will provide assured irrigation facilities for 11,000 ha (27,500 acres) of paddy lands in the Deduru Oya and the Mee Oya basins benefitting about 15,000 farmer families while about 50,000 families will benefit by domestic water facilities, lift irrigation, and extension of inland fisheries culture etc. The project components are as follows:

- Construction of new 2400m long earthen dam
- Constructions of 2 sluice structures.
- Construction of concrete spill structure and hydro power station of 1.5 MW.
- Construction of about 45 km long Left Bank Main Canal, 33 km long Right Bank Trans Basin Canal and 27 km Long Branch canals.
- Improvements to minor tanks, which will fed by RB & LB Canals.

• Providing infrastructure facilities for drinking water, electricity, roads etc. in the resettlement areas.

In addition to above construction works, action has been taken to acquire necessary lands for the project and to resettle affected people simultaneously, which costs around Rs. 1800 million. The total project cost is Rs.6200 million. Initial construction period of the project was from 2006 to 2010.

In spite of the government's promises, the following negative impacts are reported from the project area:

Even though it has been estimated that around 1400 acres of land would be inundated, it is more than the estimated extent, creating problems for people living in the area for generations.

Around 905 households have lost their land and houses and the government has acquired lands in katuwana, Walpaluwa, Maho, Potuwewa, Thambaraw, Natiya, Kithulwehera, Ipalawa, Sirangoda, Potuwagonna, Divulwewa, Kakulawala, Thibiriwewa, Ganewaata areas depriving people of their traditional lands. The farmers had to give up farming activities due to being deprived of their traditional lands and find it difficult to make a living.

Several case studies on displaced families are presented below to highlight the present situation in Deduru Oya project area:

R.M.Somaratne, Piterweli watta, Hiripitiya– 56 years old farmer, "At present I live in piterweli watta in Hiripitiya area. Before settling here, our family lived in Kukulawala located near Deduru Oya. We had to leave our traditional land and the birth placa and migrate to the present settlement area. We had 1 acre of paddy land ½ acre of homestead there. We were given a compensation of Rs.500,000 and ½ acre of land. We don't have a paddy land now. We built a house with the compensation, but we don't have a livelihood. We buy our rice requirement from the market. Life is extremely difficult"

Mrs.Indrani, piterweli watta, Hiripitiya – 53 years old, "We had two acres of coconut in kakulawela before we were evicted from the area".We had a yield around 1500 nuts in every

three months period. We cultivated crops to meet our consumption needs. We were given a compensation of Rs.700, 000 and ½ acre of land here in Hiripitiya area. We cultivated chenas when we were living in our traditional land. Now we have to buy everything from the market. We have serious economic difficulties."

G.Sumanadasa – 48 years old " I lived in Alupothagama before being displaced by the project. I had 1 acre of paddy land and 1 acre of homestead. I received 1 ½ acre of land from Polgammana watta. These lands inundates from Deduru Oya water. I have given up crop cultivation and silently watch water flowing in the river".

9. lands grabbing near Yala National Park

Some forest lands in zone 4 of Yala National Park have been granted to four companies by now as it has been proposed on 7 February 2012by the former government to make these lands available to the companies. According to this decision, Kosgasmankada forest area has been given to a Company named Alumenium, Saipadeepan Thotupala (boat anchoring place) to Leopard Safari Companyand Nagiyanthota to BimkuluSafaro Company and Kalgasthota forest area to Eco view Company.

As reported in Sathhada published on Sundays, the former presidentMahindra Rajapaksa has made around 1000 acres of land in Yala National park available to his family members and close associates. The family members who came to possess these lands include Yositha Rajapaksa, his son and close relatives Nipuna ranawaka, Shaminda, Manoj, Asanka, Mihiri, Eshana Randula and Hansa. They have been granted permission by the circular No: 02/06/04/03/S.D/S.P dated 18th January 2012 to do mining of mineral resources in these lands. This permission has been given for the fulfillment of their individual needs and acquire benefits and not for the development of the country.

Number of hotels has been constructed in boundary of in the Yala National Park by now. It has been decided to establish some tourist zones for ecotourism by 2030 as per the proposed National Physical Plan described above in this paper. These plans have been made during the rule of President Mahinda Rajapaksa with the support of funding agencies like the World Bank, Asian Development Bank and International Monetary Fund.

The former Wild Life Minister, Mr, S.M.Chandrasena has allowed some of his close associates to construct luxurious Eco tourist camps in Pallepoththala area in the park. Also there were some hotels established in the park by this time. However, this was stopped after 8th January 2015 with the defeat of Mr.Mahinda Rajapaksa in the Presidentialelection and the construction activities have restarted by now under the present government, which needs to be investigated. The hotels operating within the park are known as Thuruwadula and Wanawadula and have been constructed by damaging the forest area. The tourists coming to the hotels are served venison and meat of wild boar and stag and animals in the park are killed for this purpose without any restrictions. Access roads have been constructed to these hotels and lands granted to companies, clearing forest lands which disturb animals in the park and causes damages to biodiversity.

It is a wonder that the relevant authorities like Environmental Ministry, Environmental Authority, Wildlife Conservation Department do not pursue any action against the people violating regulations under Flora and Fauna Act, Para 5,6 and 7 of which prohibits trespassing, clearing of forest, poaching, implementing development activities such as farming and construction of buildings.

Environmental right has been accepted in the International Human Rights Perspective of 1948 as a right of the third generation. Willful damages to the environment threatening its sustainability for the use of future generation are a violation of human rights. Environmental rights are accepted in the country's constitution of 1978 too.

In addition to the damages done to the environment in Yala National Park, forest lands exceeding 30,000 acres in the northern side of the park belonging to the Forest conservation Department have also been grabbed by the politicians. The leading politicians in these land grabs are Mr.Shasindra Rajapaksa, former Chief Minster of Uva Province, Minister Jagath Pushpakumara and their political supporters and associates. Some businessmen in alliance with these politicians and members of Buttala Pradesheeya Sabha are also involved in land grabbing. Mr.H.R.N. Premaratne, a member of Buttala Pradesheeya Sabha has grabbed 100 acres of land from this area and sold to a businessman in Colombo.

It is a lucrative business among these politicians to clear forest areas by force, obtain permits for the land and sell them to businessmen in the area or in Colombo. No action is taken by the Forest Conservation Department against the illegal activities of the politicians or other individual involved in destroying forest areas close to Yala Park.

The lands cleared in this area fall under three DS Divisions, Monaragala, Buttala and Siyabalanduwa. In Monaragala DSD, these lands are located in Thengallanda, Kahambana, Marawa, kaludiya Ella and Iththakatuwa areas while in Buttala DSD, the land area being destroyed are in Upaliya, Niyadalla and Rathri Wewa. Kotiyagala, Athimale and Wattegama areas in Siyabalanduwa DSD have also come under the threat of being destroyed by these politicians. Some lands in extent of 10 - 100 acres are cleared and used for chena cultivation.

The people in the area face problems such as human elephant conflict, lack of land for chena cultivation and shortage of drinking water (especially due to tapping of streams for large scale farming by businessmen) and use of ground water resources extensively for such cultivation activities.

10. Land grabbing and deforestation activities in Vauniya

People are being settled in karinkalikula forest reserve in Vauniya clearing 5000 acres of forest land. People from Gampaha, Matara and Hambantota districts are settled this way with the involvement of Mahawell Authority, Army and the Civil Defense Force under the coordination of Atabagaskada Kalyanathissa Thero who organizes funding from Seva Lanka NGO for infrastructure development activities.

It has also been planned to develop Padaviya forest reserve as Mahaweli System L for which total forest area of 31900 is to be cleared.Padaviya forest area declared as forest reserve on 18.10.2013 through the gazette notification No: 1793/21 in terms of the Forest conservation Act was re-declared as a non-forest reserve by the gazette notification No: 1808/04 to be developedas Mahaweli L zone.

Two forest areas in Sampathnuwara in Mullativu district are also to be developed as parts of the proposed Mahaweli L zone. They include 700 acres of forest in Andakula forest in Gajabapura and 2000 acres in Cheppakulam forest in Kiriibbanwewa area.

It has been planned to acquire 34600 acres of forest lands in three reserved forest areas for the proposed Mahaweli L zone. Similarly, for Moragakanda project, 22600 acres of forest lands have been acquired for development and settle people.

Development activities such as construction of access roads, land development for settlement and agriculture are carried out in these areas destroying forest reserves such as Ralapanawa, Wadinawewa and Etaba Oya. Out of these forest reserves being developed comprises of 61860 acres of forest lands, these forest lands which are now the habitats of wild elephants would create human elephant conflicts hitherto unknown. Since they are catchments of tank and rivers, downstream people will also experience water scarcity problems.

This will definitely lead to increase human elephant conflict due to which around 260 have got killed and 70 people lost their lives so far in the process of destroying jungles for development.

11. Soragune Forest destroyed to construct an access road to the proposed hotel complex with 2000 rooms and Golf ground

Haldummulla Pradesheeya Sabha is taking action to construct a road through Soragune forest in Haldummulla DSD in Badulla district via Ranwan Guhawa and Dadayampola. Around 700 meters of this road has already constructed through the forest secretly. This road is constructed to provide transport facilities to tourists to reach the proposed hotel complex and Golf ground called Beragala Golf Resort which was stopped half way some time back due to protest from people. The proposed road project adversely affects the environment and livelihoods of people in Soragune and Weli Oya.

There is information to the effect that Beragala Hidden Valley Golf Project which as withdrawn amidst protects from people has also come to the scene again and foundation stones are to be laid for the construction of associated infrastructure soon. Mr.Vasurassaiya, an American businessman involved in this project has plans to get the involvement of the Chairman of Haldummulla Pradesheeya Sabha and foreign representatives for this event.

Around 628 acres of forest land in Soragune forest area comprising of KarankalOya, Demataara, WeliOya and PathahaOya have already been granted for the construction of Beragala Golf Resort and two roads are being constructed through Soragune forest for this purpose.

The said land has sold to Alpha and Omega private Company Ltd. Located at No: 65, Dharmapala Mawatha, Colombo 7 for six million rupees, keeping Weli Oya project at a stake. It is noteworthy that the government has spent Rs.850 million for weli Oya Project.

Negative Impacts

- Water shortages to Weli Oya Project and drinking water shortage to downstream population – Sorgune forest is the catchment of Weli Oya. The Buddhist priests in the area and farmer organization reported this problem to the president in their letter dated 11.07.2011 and the president has referred it to the department of Irrigation by letter No: SC 1/ 05/15/30256 for action. In view of ID, the proposed golf project creates water shortage problems due to forest clearing in the catchments. Around people in 35 villages including those under Weli Oya project will be affected and lose their livelihoods due to the impact of the Golf project.
- Loss of biodiversity Soragune forest is rich in biodiversity. There are tree species such as Aralu, bulu, Nelli, Gammalu, Kahata and Uvamandora endemic to the area. In addition, there are about 309 animal species in the forest area that include 23 species of amphibians, 76 species of reptiles, 44 mammal species, 208 species of birds and 39 fish species. The forest is also a habitat for many other faunal species endemic to the area. Endemic species identified are 59. The proposed development will definitely have devastating effects and impacts on biodiversity. Due to the importance of this forest as a biodiversity hotspot, it has been requested to declare it as National Wildlife park.
- Elephant corridor linking Udawalawe and Bogahapattiya runs through Soragune forest. The proposed development disturbs free movement of elephants which would lead to human elephant conflicts.
- Impacts on livelihood of people –The forest land in Soragune belongs to the Department of Forest conservation and Soragune Devalaya.The people cultivate Devalagam land on tenure and they can be evicted from lands only if they do not

perform duties for Devalaya, in this case duties to the Soragune kuda Katharagam Devalaya. Basnayaka Nilame of this Devalaya is trying to deprive people of the access to these lands for agriculture and livelihoods, in spite of their service to the temple, to satisfy an American businessman promoting golf sport activities and associated tourist industry.

Lessons from other golf projects

- Many countries in the world have stopped promoting Golf realizing its negative impacts on environment. It has been removed from Atlanta Olympic game list of 1996 due to this reason. For example, according to UN Environmental Protection Agency, water requirement per day for operation and maintenance of a Golf play ground is around 9.5 billion of liters. This shows that impact of Golf on water resources.
- Royal Golf playground in Sri Lanka is located in a land area of 70 acres, close to Borella Kelani Weli train line where land is limited. Excessive use of fertilizer for the maintenance and upkeep of the ground is reported. Water in downstream areas is polluted due to these chemicals. More pollution can be expected from Beragala Resort Project covering a larger area.

To market Golf business, commercial advertisements are published informing the positive impacts of Golf for the infrastructure and associated development in areas where Golf playgrounds are established. The advertisements and media reiterated this strategy in promoting Victoria Golf ground. Similarly, EML which is the organization carrying out the EIA on Beragala Golf Resort is trying to convince the people in the area of such positive impacts and benefits to the people and win their support for the Golf project, in spite of its negative impacts. It is unfortunate that EML works as an agent of the company in this Golf business activity rather than an independent organization doing an unbiased evaluation.

12. Forest lands in Hambantota sacrificed for large scale development

Hambantota in arid zone of Sri Lanka is a water scarce region in Sri Lanka. It is the forest cover in the area that helped retain moisture condition in the soil and performed many other ecological functions. The forest consisted of Palu, Weera and Kubuk trees and was the habitat of mammals including elephants, deer, stags and large number of reptiles, amphibians and

birds, both local and migratory. These forest lands have now been cleared for development purposes without concern for environment.

Sometime back, 100 acres of forest land in Weerawila area was cleared for the construction of an airport which was later abandoned due to protest from people in the areas and environmentalists on the ground that migratory birds come to this area in September every year and lay eggs and make their temporary stay and the air force would disturb their migration.

Thereafter, airport was shifted to Mattala which is also a habitat of migratory birds and comprises of elephant corridors. Around 2000 ha of forestland was cleared for this purpose. Even though the airport was established, no airplanes were landed there and finally the airport was converted to a paddy store.

Hambantota rural town was transformed in to a large urban area comprising of large international conference halls, harbors, hotels, highways, international cricket grounds, towns for film production and many other development activities for which nearly about 10000 acres of forest land was cleared. Since the forest areas were habitats of wild elephants, they started roaming in villages damaging houses and crop cultivation. For example, in Suriyawewa in Hambantota, human elephant conflict has become a serious problem.

With deforestation, small tanks (known as Olagama/Kuluwew) in upper catchments of the tanks that performs ecological functions such as ground water recharge, dried up. They were also completely vanished along with the forests. As a result, people in many parts of Hambantota face water scarcity problems even after a short dry spell. As these Kuluwew served to store water during rainy periods, floods started to occur with their disappearance.

Along with these lands grabbing, some companies have been granted lands, around 2500 acres to PC Solar and another 2500 acres to saga Solar. Another 2000 acres have been given to an individual for a metal quarry for which the whole land area of 2000 has been cleared.

A politician has grabbed a land area of 100 acres fromKaragahawewa area in Karagahawewa reserved forest area to run a private bird watching center and large number of building for hotels and houses. They are located in the Thavulla (water holding area of tank in the

immediate catchment).In Usgala area along Usgala and Pahala Andarwewa road, 400 acres of forest land comprising of Palu, Kubuk and Weera trees have been cleared to establish a banana cultivation. The deforestation for these activities by individuals with political support has aggravated human elephant conflict.

Table 7 below provides information on land use in some areas under Hambantota DS Division. These lands which comprise of cultivated lands, uncultivated lands, reservations and for water bodies are now grabbed for development activities such as road construction, hotels and building construction and large scale farming activities without any comprehensive plan and carried out haphazardly not considering their impacts on environment.

| GN | GND Name | Land use in acres | | | | | | | | |
|-----|----------------|-------------------|--------|--------------|--------|-------------|-------|------|--|--|
| D | | Cultivated land | | Uncultivated | | Reservation | Water | Tota | | |
| No. | | | | land | | S | bodie | 1 | | |
| | | Uplan | Lowlan | uplan | Lowlan | - | S | | | |
| | | d | d | d | d | | | | | |
| 81 | Bundala | 85 | 350 | 110 | - | 5022 | 1275 | 6842 | | |
| 82 | Siriyagama | 64 | 164 | 20 | - | 120 | | 368 | | |
| 83 | Pallemalala | 700 | 161 | 41 | 500 | 4820 | 21 | 6243 | | |
| 84 | Julegamuwa | 20 | 220 | 25 | 6 | 160 | 78 | 509 | | |
| 85 | Badagiriya | 431 | 80 | - | - | 1899 | 5 | 2415 | | |
| 86 | Tammannawa | 440 | 507 | - | - | 7670 | 272 | 8889 | | |
| 87 | Yahangala | 261 | 700 | 72 | - | - | - | 1033 | | |
| | West | | | | | | | | | |
| 88 | Yahangala East | 215 | 140 | 158 | - | - | 20 | 533 | | |
| 89 | Koholankala | 413 | 310 | - | - | 2259 | 50 | 3032 | | |
| 90 | Siribopura | 92 | 110 | 278 | - | 1037 | 271 | 1788 | | |
| 91 | Kaliyapura | 446 | 1405 | 1521 | - | 2123 | 501 | 5996 | | |
| 92 | Samodagama | 75 | 50 | 398 | - | 1052 | 938 | 2513 | | |
| 93 | Hambantota | 20 | - | - | - | 20 | 10 | 50 | | |
| | East | | | | | | | | | |
| 94 | Hambntota | 105 | - | 5 | - | 50 | - | 160 | | |

| | West | | | | | | | |
|-----|---------------------------|-------|-------|------|------|------|------|------|
| 95 | Gonnoruwa | 241 | 350 | 482 | 90 | 3225 | 212 | 4600 |
| 96 | Katanwewa | 424 | 260 | 44 | 140 | 2832 | 92 | 3792 |
| 97 | Elalla | 1558 | 730 | 94 | 15 | 2382 | 277 | 5056 |
| 116 | Siyabalagaswil a North | 124 | 252 | 50 | - | 20 | 3 | 449 |
| 117 | Siyabalagaswil a North | 388 | 306 | 94 | - | 12 | 8 | 808 |
| 118 | Galwewa | 634 | 38 | 26 | - | - | 2 | 700 |
| 119 | Udabaragama | 420 | 580 | 102 | - | - | 1 | 1103 |
| 120 | Ballagaswewa | 1201 | 660 | - | - | 100 | 200 | 2161 |
| 121 | Pahala baragama | 657 | 230 | 137 | - | 1 | 2 | 1027 |
| 122 | Arawanamulla | 342 | 164 | - | - | - | - | 506 |
| 123 | Mirijjawila | 3 | 372 | - | - | - | - | 543 |
| 124 | Sisilasagama | 174 | - | 446 | - | 274 | 715 | 1609 |
| 125 | Walawa | 142 | 944 | - | - | 85 | - | 1171 |
| 126 | Godawaya | 356 | 10 | 10 | 4 | - | - | 380 |
| 127 | Dehigahalands | 110 | 780 | 6 | - | 10 | - | 906 |
| 128 | Manajjawa | 10 | 40 | 610 | 245 | 45 | 85 | 1035 |
| | Total | 10151 | 10176 | 4729 | 1142 | 352 | 5038 | 6571 |

13. Monks destroy Dumabara through land grabbing

A large scale land grabbing is taking place in Dumbara Mananagama falling under Ayagama DS Division in Kukulugama Korale of Ratnapura district. A monk residing in Kiriella temple is making effort to grab land traditionally owned by villagers of Katepola, Manana, Denabawakanda, Dumbara GNDs by force.

The monks in the temple have prepared false documents to show that a land area of 8317 acres and 25 perches in the 4 GNDs belong to the temple. Felling of trees in the land and gemming takes place in water shed areas and along streams in these lands on the initiation of the monks in this temple. The businessmen in illegal timber felling and sale operate from the

temple. The authority and power of DS, Ayagama is used by the Chief priest of the temple to prepare false documents to substantiate that lands belong to the temple and also for selling lands to outsiders, for felling timber and gemming activities.

When the British who ruled the country in 1909 carried out land surveys in Dumbara and demarcated lands cultivated and resided by people in the villages as private properties of villagers and included them in village map No: 176.

Dumbara area comprising of 4000 households and a population of 16000 is located in the sub watersheds of Kaluganga, namely Maladiya Dola, Dowol Dola, Korale Ela and Pasgam Ela. It can be observed by just looking at these streams that number of fish species such as thal Kossa, Gal pandi, Whyran Ahirawa, Johnclass Ahirawa, very rare fish species are abundant in them. Also some rare flora and Meewana are found in the area. This rich biodiversity is eroded due to illicit timber felling, land clearing and gemming.

The people living in these lands have to get the permission of the temple even for construction of a lavatory. The chief priest is assisted by the Police, DS and the officers of other government agencies in his illegal activities. Somaratne Kariyasam who was the commissioner of Buddhist affairs in 1994 has helped the monk to prepare false documents to the effect that lands belong to the temple.

The villagers' entitlements to these lands are accepted in temple and Viharagam Act 10 of 1856 and service tenure act No: 4 of 1870.the activities of the priest is against the National environment Act and.

People in Dumbara encounter serious problems due to land grabbing by the priest and associated damages to the environment. This situation demands interventions by the government and the officers of agencies concerned to arrest the problems.

14. Landslide in Miriyabadda and the destruction of hills in the Central Province of Sri Lanka

"Sudden movement of rock or soil mass is fairly common and is generally termed as landslides. A landslide can be a movement of either a sloping mass or the crest or the foot of a hill or even the cut surface of a slope. Similarly, the materiel that flows down can also vary according to circumstances. It could be a sliding huge soil mass at one time or a giant mudslide at another. It may also be an instance of a falling mixture of rock and soil down" (VOLUME 22 NUMBER 02 VIDURAVA).

Landslide in Miriyabadda in 2014 is a great disaster in which 152 people were killed and 57 houses destroyed. Attempts are there to explain that it is a result of an El Niño conditions. The geologists are in the view that it is a result of manmade destructions. According to some renowned geologists, it occurred as a result damages done to the nature in the name of development.

The British rules cleared jungles in the central hills for cultivating commercial crops like tea, rubber and coffee and the forest cover served many ecological functions diminished in the process if such developments. The governments that came to power after independence pursued development destroying the remaining forest cover leading to devastation of central hilly areas through landslides.

The governments that came to power after 1948 constructed large reservoirs in the central hilly areas to tap water sources such as rivers for the development activities, namely power generation and agriculture in the downstream areas. As a result, soil in the surrounding areas is excessively saturated creating conditions for landslides. In addition, other development such as road construction in hilly terrains also leads to landslides.

The geologists are in the view that landslide in Miriyabadda occurred as a result of Uma Oya project activities like construction of tunnels. For example, 23 km long tunnel is constructed from Dayabara to a location below Rawana Ella for diverting water to downstream areas. The engineers use a technology called grill and blast for the construction of the tunnel. Whatever the technology is, blasting occurs and vibration in the process of blasting leads to creates many negative impacts including landslides.

It is important to note that projects like Uma Oya is implemented without serious consideration of the worldwide experience of similar projects. For example, a similar project

implemented in the 19th Century in France has caused landslides killing 450 people and destroying a large number of villages. In the first part of 20th century, a tunnel construction near Vajone village in Italy caused a landslide killing 2500 people. It is also reported that landslides occurred on 66 occasions when the tunnel construction activities in Panama Canal were implemented.

Uma Oya type of construction activities implemented in hilly terrains without considering their significance as watersheds, storing water for gradual release leads to landslide situations. In the process of construction due to blasting and vibration, connection between the soil structure at surface level with stone layers below is loosened creating a gap between the two and the water collected in the gap flows down rapidly with the surface soil layer comprising of soil, rocks and vegetation resulting in a landslide.

Even though geologists and environmental organizations warned that Uma Oya would create landslide situations, they were ignored. From the very beginning of tunnel construction, areas like Dayabara and Mathatatilla experienced a series of landslides including that in Miriyabadda.

15. Approval for 108 Mini-Hydro projects without considering their impacts on river watersheds

Ministry of Power had taken policy decisions and had prepared plans to establish 108 minihydropower projects using water falls, streams and rivers during the time Mrs.Pavitra Vanniarachchi was the Minister of Power. According to this policy and already developed plans, action is taken now by Patali Champika, the Minister of Power. Some projects have been started by now in locations such as Lankagama in Sinharaja in Gingama basin and some based on Sri Pada, Seven Virgin hills, Maskeli Oya, Laksapana water fall and Wee Oya. It is noteworthy that any environmental impact assessment has not been carried out before implementing them.

The locations in which the future projects are to be implemented include Ampanagala, Wewathanna, Kombarawa Ganga, Karagahathanne, Ellahena, Rankoth Kanda, uduwakanda, Malapola, Ohiya, Maliboda, Bevarali, Elagal Oya, Pothupitiya, Ensalwatta in Sinharaja, Murutan Ela, Siyabalagoda, Pothupitiya, Elton Minna, Uawela, Pahala Kotmale Oya, Kehelwatta, Wee Oya, Egodawela, Kagalu Oya, Bulat watta, Pahala lemastota, Kampiyan, Ingiriya, Ambagamuwa, Linon, Kukulu Oya, Hanugala, Maduwanwela, Meepilimana, Batuwangala, Dambulu Oya, Yatimahana, Beramana, Kudagala, Siri Oya, Kadawara, Bambara botuwa, Dedugala, Baharanda, Loggal Oya, Pathana, Beranawa, Batagolla, Moragaha, Hulu Ganga, Koli Oya, Puna Oya, Ganthuna, Bope kanda, Kanambarawa, Welegama, Ibban Oya, Rideepana, Alakogala, Punagala, Ihala Rathuganga, Gomale, Minum kubura, Anagaran Kanda Ela, Dothal Oya, Bambarawana, Mahabage, Palagolla, Banamadu Oya, Ma Oya, kebilidova, Elamal deniya, Demodara, kuburugolla, Halagan Oya, Boralanda, Loggal Oya, Enadu Ela, meenagala Ela, Wnisory Forest, Uma Oya, Nelukkana, Ruwan kandura, Ihala Volteereem, Pahala Kumbura, Mapalana, Palabedda, Mahodola, Kehelgamu Oya, Gileemale Forest reserve, Mederipitiya sinharajaya, Parambe, kataran Oya, Gombaru Oya, Pahala Kotmale, Norwood, Bogawela Ela, Ambagaha kanda, Pihibiya gahamula, Manna Ella, Koswathu ganga and Elamulla. Most of these locations are river basins and catchments of rivers and streams and are rich in biodiversity and the proposed mini-hydro projects are likely to create negative impacts on them. When situations in Rantabe and Randenigala reservoirs are considered the proposed projects are likely to create problems such as water resources depletion, water shortages in the Central hilly areas, intermediate zones between Central hilly areas and dry zones and in dry zones.

It is reported that 78 companies have invested to construct the 108 mini-hydropower projects and sell the power generated through them to the national grid. In project implementation, the parties concerned have violated Flora and fauna Act, Environmental Act and Civil laws of the country.

Negative Impacts

The following negative impacts are observed in the areas coming under the mini-hydropower projects:

- Environmental degradation due to negative impacts on ecosystems through activities like blasting to develop required infrastructure
- Loss of biodiversity as a result of drying up of rivers and streams fresh water fishes become extinct or reduced.

Depletion of water resources due to which agriculture and other livelihood activities in downstream areas are affected.

Experience in other countries and Sri Lanka

The research by IEA on mini hydropower projects substantiates that mini hydropower projects have serious negative impacts on environment including water resources and affects economy of the countries. For example, Aswami project in Egypt

Victoria and Randenigala large scale hydropower generation projects were started with propaganda that the power generated in them would suffice even to provide power to India. These projects have failed to deliver expected outputs and outcomes. It is not pertinent to seek solution to power crisis from mini hydropower projects when large scale power generation projects show failures.

There are attempts to introduce nuclear power generation projects and Coal projects to generate electricity in Sri Lanka while many countries are rejecting such technologies considering their harmful effects and impacts.

The country can consider alternative sources such as wind and solar power for power generation without damaging nature.

Conclusion

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Today, land issues are big problem in the Sri Lanka. Government of Sri Lanka is being implemented National physical plane to develop the physical development of the country. Many projects are being constructed in the country to attract tourists. One of them is the construction of several roads along the coastal belt of Sri Lanka as well as at places of ecological importance with little regard for the environment of the country under the National Physical Plan (NPP).

"Any project before being constructed should consider protecting the environment and the nature of a country. But the National Physical Plan lacks concerns about the safety, and this should be looked into without further delay as some of the projects are currently under construction," said the Director of Center for Environment and Nature Studies (CENS) and Environmentalist RavindraKariyawasam.(Sunday Leader, 2016).

The tourism industry is given prominence in the project. Therefore, several tourist hotels will be constructed along the coastal belts, beaches and lagoons from Chilaw to the South and North in the island. The proposed hotels are to be built in ancient cities like Anuradhapura and Polonnaruwa and in forest areas of Bibile and Nilgala and other locations harming the historical importance of these places.

Any country pursuing development goals will give due regard for the environment, especially when their sustainability have not been able to achieve desired economic and political development. America is one such country being ruined because its lack of due regard to the environment. Funds for carrying out the NPP are being provided by funding agencies such as the World Bank and Asian Development Bank. It must be recalled that the Mahaweli Development Plan which started with the hope of achieving tremendous development within a short period resulted in bringing in the country ecological disasters, human elephant conflicts, land fragmentation, commercialization of agriculture and grinding poverty of the peasantry.

Now, we can see the mega ecological disaster in Sri Lanka. Environment groups, Center for Environment and Nature Studies are carrying on camping's against this kind of environmental problems in Sri Lnak. We do our camping from 1998 to up to date. This year we hope to hand over a report to Genevra Human Right Commition to protect land rights of every living being in Sri Lanka.

Land is ourmother, she produces many thing for us .Unfortunately government of Sri Lanka violating land rights of people and land rights of all living being.

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CENS, Against the Nature piracy







